143. J.D. Irving, Limited
144. J.H. Huscroft Ltd.
145. Jan Woodlands (2001) Inc.
146. Jasco Forest Products Ltd.
147. Jazz Forest Products Ltd.
148. Jhajj Lumber Corporation
149. Kalesnikoff Lumber Co. Ltd.
150. Kan Wood Ltd.
151. Kebois Ltee; Kebois Ltd.
152. Kelfor Industries Ltd.
153. Kermode Forest Products Ltd.
154. Keystone Timber Ltd.
155. La Crete Sawmills Ltd.
156. Lafontaine Lumber Inc.
157. Langevin Forest Products Inc.
158. Lecours Lumber Co. Limited
159. Leisure Lumber Ltd.
160. Les Bardeaux Lajoie Inc.
161. Les Bois d'oeuvre Beaudoin Gauthier Inc.
162. Les Bois Martek Lumber
163. Les Bois Traites M.G. Inc.
164. Les Chantiers de Chibougamau Ltee; Les Chantiers de Chibougamau Ltd.
165. Les Industries P.F. Inc.
166. Les Produits Forestiers D&G Ltee; D&G Forest Products Ltd.
167. Les Produits Forestiers Sitka Inc. (aka Sitka Forest Products Inc.)
168. Leslie Forest Products Ltd.
169. Lignum Forest Products LLP
170. Linwood Homes Ltd.
171. Lonestar Lumber lnc.
172. Lulumco Inc.
173. Lumber Assets Holding LP
174. Madera Forest Products INC
175. Magnum Forest Products Ltd.
176. Maibec Inc.
177. Mainland Sawmill, a division of Terminal Forest Products
178. Manitou Forest Products Ltd.
179. Manning Forest Products Ltd.; Sundre Forest Products Inc.; Blue Ridge Lumber Inc.; West Fraser Mills Ltd.
180. Marcel Lauzon Inc.
181. Marwood Ltd.
182. Materiaux Blanchet Inc.
183. Metrie Canada Ltd.
184. Mid Valley Lumber Specialties Ltd.
185. Midway Lumber Mills Ltd.
186. Mill & Timber Products Ltd.
187. Millar Western Forest Products Ltd.
188. Mirax Lumber Products Ltd.
189. Mobilier Rustique (Beauce) Inc.
190. Modern Terminal Ltd.
191. Monterra Lumber Mills Limited
192. Morwood Forest Products Inc.
193. Multicedre Ltee
194. Murray Brothers Lumber Company Ltd.
195. Nagaard Sawmill Ltd.
196. Nakina Lumber Inc.
197. National Forest Products Ltd.
198. Nicholson and Cates Ltd.
199. Nickel Lake Lumber
200. Norsask Forest Products Inc.
201. Norsask Forest Products Limited Partnership
202. North American Forest Products Ltd. (located in Abbotsford, British Columbia)
203. North American Forest Products Ltd. (located in Saint-Quentin, New Brunswick)
204. North Enderby Timber Ltd.
205. Northland Forest Products Ltd.
206. NSC Lumber Ltd.
207. Oakwood Manufacturing A Division of Weston Forest Products Inc.
208. Olympic Industries Inc.
209. Olympic Industries ULC
210. Oregon Canadian Forest Products; Oregon Canadian Forest Products Inc.
211. Pacific Coast Cedar Products Ltd.
212. Pacific Lumber Remanufacturing Inc.
213. Pacific NorthWest Lumber Ltd.
214. Pacific Pallet Ltd.
215. Pacific Western Wood Works Ltd.
216. PalletSource Inc.
217. Parallel Wood Products Ltd.
218. Partap Forest Products Ltd.
219. Partap Industries
220. Pat Power Forest Products Corporation
221. Peak Industries (Cranbrook) Ltd.
222. Phoenix Forest Products Inc.
223. Pine Ideas Ltd.
224. Pioneer Pallet & Lumber Ltd.
225. Porcupine Wood Products Ltd.
226. Portbec Forest Products Ltd.; Les Produits Forestiers Portbec Ltee
227. Power Wood Corp.
228. Precision Cedar Products Corp.
229. Produits Forestiers Petit Paris Inc.
230. Produits Matra Inc.; Sechoirs de Beauce Inc.
231. Promobois G.D.S. Inc.
232. R.A. Green Lumber Ltd.
233. Rembos Inc.
234. Rene Bernard Inc.
235. Rick Dubois
236. Rielly Industrial Lumber Inc.
237. River City Remanufacturing Inc.
238. S&R Sawmills Ltd.
239. S&W Forest Products Ltd.
240. San Group
241. San Industries Ltd.
242. Sapphire Lumber Company
243. Sawarne Lumber Co. Ltd.
244. Scierie Alexandre Lemay & Fils Inc.
245. Scierie St-Michel Inc.
246. Scierie West Brome Inc.
247. Scott Lumber Sales; Scott Lumber Sales Ltd.
248. Shakertown Corp.
249. Sigurdson Forest Products Ltd.
250. Silvaris Corporation
251. Sinclar Group Forest Products Ltd.
252. Skana Forest Products Ltd.
253. Skeena Sawmills Ltd.
254. Smart Wood Forest Products Ltd.
255. Sonora Logging Ltd.
256. Source Forest Products
257. South Beach Trading Inc.
258. South Coast Reman Ltd.; Southcoast Millwork Ltd.
259. South Fraser Container Terminals
260. Specialiste du Bardeau de Cedre Inc.; Specialiste du Bardeau de Cedre Inc. (SBC)
261. Spruceland Millworks Inc.
262. Star Lumber Canada Ltd.
263. Suncoast Industries Inc.
264. Suncoh Custom Lumber Ltd.
265. Sundher Timber Products Inc.
266. Surplus G Rioux
267. Surrey Cedar Ltd.
268. Swiftwood Forest Products Ltd.
269. T&P Trucking Ltd.
270. T.G. Wood Products
271. Taan Forest Limited Partnership (aka Taan Forest Products)
272. Taiga Building Products Ltd.
273. Tall Tree Lumber Company
274. Temrex Forest Products LP; Produits Forestiers Temrex SEC.
275. Tenryu Canada Corporation
276. Terminal Forest Products Ltd.
277. The Wood Source Inc.
278. Tolko Industries Ltd.; Tolko Marketing and Sales Ltd.; Gilbert Smith Forest Products Ltd.
279. Top Quality Lumber Ltd.
280. Trans-Pacific Trading Ltd.
281. Triad Forest Products Ltd.
282. Twin Rivers Paper Co. Inc.
283. Tyee Timber Products Ltd.
284. Universal Lumber Sales Ltd.
285. Usine Sartigan Inc.
286. Vaagen Fibre Canada ULC
287. Valley Cedar 2 Inc.
288. Vancouver Specialty Cedar Products Ltd.
289. Vanderhoof Specialty Wood Products Ltd.
290. Vanderwell Contractors (1971) Ltd.
291. Visscher Lumber Inc.
292. W.I. Woodtone Industries Inc.
293. Waldun Forest Product Sales Ltd.
294. Watkins Sawmills Ltd.
295. West Bay Forest Products Ltd.
296. West Coast Panel Cutters
297. Western Forest Products Inc.
298. Western Lumber Sales Limited
299. Western Timber Products, Inc.
300. Westminster Industries Ltd.
301. Weston Forest Products Inc.
302. Westrend Exteriors Inc.
303. Weyerhaeuser Co.
304. White River Forest Products L.P.
305. Winton Homes Ltd.
306. Woodline Forest Products Ltd.
307. Woodstock Forest Products
308. Woodtone Specialties Inc.
309. WWW Timber Products Ltd.

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XE442]

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Lubec Harbor Project in Lubec, Maine

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; proposed incidental harassment authorization; request for comments on proposed authorization and possible renewal.

SUMMARY: NMFS has received a request from Maine Department of Transportation (ME DOT) for authorization to take marine mammals incidental to Lubec Harbor Project in Lubec, Maine. Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to issue an incidental harassment

authorization (IHA) to incidentally take marine mammals during the specified activities. NMFS is also requesting comments on a possible one-time, 1-year renewal that could be issued under certain circumstances and if all requirements are met, as described in Request for Public Comments at the end of this notice. NMFS will consider public comments prior to making any final decision on the issuance of the requested MMPA authorization and agency responses will be summarized in the final notice of our decision.

DATES: Comments and information must be received no later than April 4, 2025.

ADDRESSES: Comments should be addressed to Jolie Harrison, Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service and should be submitted via email to *ITP.owens@noaa.gov.* Electronic copies of the application and supporting documents, as well as a list of the references cited in this document, may be obtained online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-activities.* In case of problems accessing these documents, please call the contact listed below.

Instructions: NMFS is not responsible for comments sent by any other method, to any other address or individual, or received after the end of the comment period. Comments, including all attachments, must not exceed a 25-megabyte file size. All comments received are a part of the public record and will generally be posted online at *https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act* without change. All personal identifying information (*e.g.,* name, address) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information.

FOR FURTHER INFORMATION CONTACT: Summer Owens, Office of Protected Resources, NMFS, and (301) 427–8401.

SUPPLEMENTARY INFORMATION:

Background

The MMPA prohibits the ''take'' of marine mammals, with certain exceptions. Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (as delegated to NMFS) to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are proposed or, if the taking is limited to harassment, a notice of a proposed IHA is provided to the public for review.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for taking for subsistence uses (where relevant). Further, NMFS must prescribe the permissible methods of taking and other ''means of effecting the least practicable adverse impact'' on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stocks for taking for certain subsistence uses (referred to in shorthand as ''mitigation''); and requirements pertaining to the monitoring and reporting of the takings. The definitions of all applicable MMPA statutory terms used above are included in the relevant sections below and can be found in section 3 of the MMPA (16 U.S.C. 1362) and NMFS regulations at 50 CFR 216.103.

National Environmental Policy Act

To comply with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*) and NOAA Administrative Order (NAO) 216–6A, NMFS must review our proposed action (*i.e.,* the issuance of an IHA) with respect to potential impacts on the human environment.

This action is consistent with categories of activities identified in Categorical Exclusion B4 (IHAs with no anticipated serious injury or mortality) of the Companion Manual for NAO 216–6A, which do not individually or cumulatively have the potential for significant impacts on the quality of the human environment and for which we have not identified any extraordinary circumstances that would preclude this categorical exclusion. Accordingly, NMFS has preliminarily determined that the issuance of the proposed IHA qualifies to be categorically excluded from further NEPA review.

Summary of Request

On August 29, 2024, NMFS received a request from ME DOT for an IHA to take marine mammals incidental to construction activities in Johnson Bay in Lubec, Maine. Following NMFS' review of the application, ME DOT submitted a revised version on December 19, 2024. The application was deemed adequate and complete on December 20, 2024. ME DOT's request is for take of five species of marine mammals, by Level B harassment only. Neither ME DOT nor NMFS expect serious injury or mortality to result from this activity and, therefore, an IHA is appropriate.

Description of Proposed Activity

Overview

The Maine Department of Transportation and the Town of Lubec are planning to construct a boat launch and breakwater structure that would extend into Johnson Bay from the northern coast of Lubec. The Town was once one of Maine's most active commercial fishing ports, consisting of several large herring processing operations until the late 1970s. A collapse of the herring fishery led to the closure of those processing canneries; however, there is a rebound of the fishing industry in the area due to lobster fishing, shellfish harvesting, and growth of salmon farming. The project will address the lack of sheltered boat access and safe launch locations. The breakwater is expected to provide a sheltered area that mariners may launch behind and recover and moor their vessels during periods of inclement weather. This project is proposed in order to provide a safer harbor for the mariners and townspeople of Lubec.

This construction project would include installation of a falsework platform, a pile supported platform (PSP), and two floating docks. The falsework platform will be installed using impact and vibratory pile driving, while the PSP and floating docks will require DTH (down the hole) drilling. ME DOT is requesting authorization of take by Level B harassment for five marine mammal species over an estimated 234 days of pile driving/drilling activities.

Dates and Duration

In-water construction at the Lubec Harbor is planned to start in March 2025. The estimated maximum number of pile driving days is 234 with a maximum of 24 installation days per month. The PSP and floating dock are estimated to include installation of half a pile per day, with each full pile taking 780 minutes (13 hours) to install. The falsework platform is estimated to include installation of five piles per day, each requiring 30 minutes of vibratory pile driving following 150 impact hammer strikes per pile.

Specific Geographic Region

The Town of Lubec is a coastal town on a peninsula in Maine that is

surrounded by the Johnson, South, and Cobscook Bays to the north, the Lubec and Quoddy Narrows and the United States-Canada border to the east, and the Gulf of Maine to the south. Construction will take place in Johnson Bay in Lubec, Maine. Previous efforts to install a marina at Lubec, consisting of floating docks and floating breakwater units, have failed. The excessive wind and wave action in Johnson Bay from severe northeast storms have contributed to destruction of valuable infrastructure.

The estimated extent of area in which noise will exceed the relevant Level B harassment criterion, for DTH drilling only, extends into Canadian territorial waters. See the Estimated Take section for more detail. However, the MMPA does not apply in Canadian territorial waters. NMFS has calculated the expected level of incidental take in the entire activity area (including Canadian territorial waters) as part of the analysis supporting our preliminary determination under the MMPA that the activity will have a negligible impact on the affected species (see Estimated Take and Negligible Impact Analysis and Determination Sections). However, NMFS proposes to authorize only take that is expected to occur in U.S. territorial waters.

Detailed Description of the Specified Activity

The proposed project will include vibratory pile driving and removal, impact pile driving, and DTH drilling to install the PSP, floating dock, and falsework platform. The falsework platform will require impact and vibratory pile driving of five temporary 14-inch steel H-piles. The falsework platform will be moved up to 13 times throughout the project. The vibratory hammer will be used to upend the piles and then vibrate them into the first few feet of the soil. The vibratory pile driving will take about 30 minutes per pile. Impact driving will be used to drive the pile to refusal and ensure the piles are properly placed in the bedrock. Impact driving will need about 150 blows per pile. Due to the shallowness of the bedrock, the PSP will require DTH of seventy-two 36-inch steel pipe piles and take 144 days and up to 780 minutes (13 hours) per pile. The platform would extend from the breakwater and have a bay-side concrete wave screen to protect from wind and waves. The platform will also have a 28-foot wide travel lane for vehicles. The floating docks will require DTH drilling of thirty-two 24–30-inch steel pipe piles and take 64 days. These piles could range in size anywhere from 24 to 30 inches, but 30-inch is conservatively assumed for the purposes of this analysis. Floating dock 1 is attached to PSP and directly shore-side, while floating dock 2 is located along the boat ramp and is connected to floating dock 1 along the shore-side of the breakwater and PSP complex. The following construction activities are anticipated for the project.

TABLE 1—NUMBER AND TYPES OF PILES TO BE INSTALLED

Project component	Pile diameter and type	Number of piles	Impact strikes per pile	Vibratory duration per pile (minutes)	DTH drilling duration per pile (minutes)	Production rate (piles per day)	Days of installation
Pile Supported Platform	36″ steel pipe pile	72			780	0.5	144.
Floating Docks	24–30″ steel pipe pile	32			780	0.5	64.
Falsework Platform	14″ steel H pile	65	150	30		5	13 Install, 13 Removal.
Total		169					234.

Proposed mitigation, monitoring, and reporting measures are described in detail later in this document (please see Proposed Mitigation and Proposed Monitoring and Reporting).

Description of Marine Mammals in the Area of Specified Activities

Sections 3 and 4 of the application summarize available information regarding status and trends, distribution and habitat preferences, and behavior and life history of the potentially affected species. NMFS fully considered all of this information, and we refer the reader to these descriptions, instead of reprinting the information. Additional information regarding population trends and threats may be found in NMFS' Stock Assessment Reports (SARs; *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments*) and more general information about these species (*e.g.,* physical and behavioral descriptions) may be found on NMFS' website (*https://www.fisheries.noaa.gov/find-species*).

Table 2 lists all species or stocks for which take is expected and proposed to be authorized for this activity and summarizes information related to the population or stock, including regulatory status under the MMPA and Endangered Species Act (ESA) and potential biological removal (PBR), where known. PBR is defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population (as described in NMFS' SARs). While no serious injury or mortality is anticipated or proposed to be authorized here, PBR and annual serious injury and mortality (M/SI) from anthropogenic sources are included here as gross indicators of the status of the species or stocks and other threats.

Marine mammal abundance estimates presented in this document represent the total number of individuals that make up a given stock or the total number estimated within a particular study or survey area. NMFS' stock abundance estimates for most species represent the total estimate of individuals within the geographic area, if known, that comprises that stock. For some species, this geographic area may extend beyond U.S. waters. All managed stocks in this region are assessed in NMFS' U.S. Atlantic SARs. All values presented in table 2 are the most recent available at the time of publication and are available online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments.*

TABLE 2—SPECIES LIKELY AFFECTED BY THE SPECIFIED ACTIVITIES [1]

Common name	Scientific name	Stock	ESA/ MMPA status; strategic (Y/N) [2]	Stock abundance (CV, N_{min}, most recent abundance survey) [3]	PBR	Annual M/SI [4]
Order Artiodactyla—Cetacea—Mysticeti (baleen whales)						
Family Balaenopteridae (rorquals):						
Minke Whale	*Balaenoptera acutorostrata*	Canadian Eastern Coastal	-, -, N	21,968 (0.31, 17,002, 2021)	170	9.4
Odontoceti (toothed whales, dolphins, and porpoises)						
Family Delphinidae:						
Atlantic White-Sided Dolphin.	*Lagenorhynchus acutus*	Western N Atlantic	-, -, N	93,233 (0.71, 54,443, 2021)	544	28
Common Dolphin	*Delphinus delphis*	Western N Atlantic	-, -, N	93,100 (0.56, 59,897, 2021)	1,452	414
Family Phocoenidae (porpoises):						
Harbor Porpoise	*Phocoena phocoena*	Gulf of Maine/Bay of Fundy	-, -, N	85,765 (0.53, 56,420, 2021)	649	145
Order Carnivora—Pinnipedia						
Family Phocidae (earless seals):						
Gray Seal	*Halichoerus grypus*	Western N Atlantic	-, -, N	27,911 (0.20, 23,624, 2021)	1,512	4,570
Harbor Seal	*Phoca vitulina*	Western N Atlantic	-, -, N	61,336 (0.08, 57,637, 2018)	1,729	339

[1] Information on the classification of marine mammal species can be found on the web page for The Society for Marine Mammalogy's Committee on Taxonomy (*https://marinemammalscience.org/science-and-publications/list-marine-mammal-species-subspecies/*).

[2] Endangered Species Act (ESA) status: Endangered (E), Threatened (T)/MMPA status: Depleted (D). A dash (-) indicates that the species is not listed under the ESA or designated as depleted under the MMPA. Under the MMPA, a strategic stock is one for which the level of direct human-caused mortality exceeds PBR or which is determined to be declining and likely to be listed under the ESA within the foreseeable future. Any species or stock listed under the ESA is automatically designated under the MMPA as depleted and as a strategic stock.

[3] NMFS marine mammal stock assessment reports online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports-region.* CV is coefficient of variation; N_{min} is the minimum estimate of stock abundance.

[4] These values, found in NMFS's SARs, represent annual levels of human-caused mortality plus serious injury from all sources combined (*e.g.,* commercial fisheries, ship strike). Annual M/SI (mortality/serious injury) often cannot be determined precisely and is in some cases presented as a minimum value or range. A CV associated with estimated mortality due to commercial fisheries is presented in some cases.

As indicated above, all six species (with six managed stocks) in table 2 temporally and spatially co-occur with the activity to the degree that take is reasonably likely to occur. All species that could potentially occur in the proposed project area are included in table 3 of the IHA application. While fin whales, humpback whales, North Atlantic right whales, sei whales, sperm whales, Atlantic spotted dolphins, Risso's dolphins, common bottlenose dolphins, harp seals, and hooded seals have been documented in the area, the temporal and/or spatial occurrence of these species is such that take is not expected to occur. Those species occur in the Gulf of Maine (GOM), but are mainly migratory and/or present offshore and therefore should not be present in the project area. Given that the project location is situated in Johnson Bay, which is characterized by less than 15 meters (m) of water depth and is separated from the GOM by the Lubec and Quoddy Narrows, species which prefer deeper water (*e.g.,* sperm whale, Risso's dolphin, and hooded seal) are unlikely to occur in the Project Area. Additionally, none of the 10 species mentioned above were observed during the Eastport Breakwater Project (*https://www.fisheries.noaa.gov/action/incidental-take-authorization-maine-dot-eastport-breakwater-project*), and they are not discussed further beyond the explanation provided here.

Minke Whale

Minke whales in the area are from the Canadian Eastern Coastal stock. Minke whales migrate seasonally and can be found both inshore and offshore (NOAA Fisheries 2022). They are a cosmopolitan species and can be found anywhere from polar, temperate, to tropical waters. Minke whales are most commonly seen in Maine from June through September when they are feeding and breeding (New England Eco Adventures 2023). During the Eastport Breakwater Project from 2015–2017, 28 minke whales were observed during the 2015–2016 construction season NOAA Fisheries 2017).

Atlantic White-Sided Dolphin

Atlantic white-sided dolphins in the area would be from the North Atlantic stock. Atlantic white-sided dolphins have documented seasonal movements, including shifting inshore and northwards in the summer, then shifting offshore and southwards in the winter (NOAA Fisheries 2022). Atlantic white-sided dolphins are most commonly in the GOM in late spring, summer, and fall (MARCO n.d.; NROC 2023), and are typically found from Georges Bank north to the GOM from June through September (BOEM 2013). During the Eastport Breakwater Project from 2015 to 2017 there were no Atlantic white-sided dolphins observed (NOAA 2017).

The Western North Atlantic stock of Atlantic white-sided dolphins ranges from Greenland to North Carolina. A current trend analysis has not been conducted for this stock (Waring *et al.* 2016). Any Atlantic white-sided dolphins encountered during the proposed project would likely be part of the GOM population and are most common in continental shelf waters from Hudson Canyon (approximately 39° N) to Georges Bank, and in the GOM and lower Bay of Fundy (Waring *et al.* 2016). During January to May, low numbers of white-sided dolphins are found from Georges Bank to Jeffrey's Ledge (off New Hampshire), with even lower numbers south of Georges Bank (Waring *et al.* 2016). From June through September, large numbers of white-sided dolphins are found from Georges Bank to the lower Bay of Fundy. From October to December, white-sided dolphins occur at intermediate densities from southern Georges Bank to southern GOM (Payne and Heinemann 1990 as cited in Waring *et al.* 2016). Atlantic white-sided dolphins are found in temperate and sub-polar waters,

primarily in continental shelf waters to the 100-m contour and exhibit seasonal movements between inshore northern waters and southern offshore waters (Waring *et al.* 2016).

Common Dolphin

Common dolphins in the area would be from the western North Atlantic stock. Common dolphins have a seasonal migration pattern, usually spending January to May from Cape Hatteras to Georges Bank (Hain *et al.* 1981; CETAP 1982; Payne *et al.* 1984). From mid-summer to autumn the species moves from Georges Bank, the GOM, and the Scotian Shelf. The species will be most prevalent in the project area from late summer to fall when they are most common in the GOM (NOAA Fisheries 2022). No common dolphins were observed during the Eastport Breakwater Project from 2015 to 2017 (NOAA 2017).

Harbor Porpoise

Harbor porpoises in the area would be from the GOM/Bay of Fundy Stock. July through September harbor porpoises can be found in the northern GOM, southern Bay of Fundy, and the southern tip of Nova Scotian waters less than 150 m deep (Gaskin 1977; Kraus *et al.* 1983; Palka 1995). They are more widely dispersed from Maine to New Jersey during fall and spring. During the winter, they can be found as far south as North Carolina (NOAA Fisheries 2022). Harbor porpoises were the most commonly observed cetacean during the Eastport Breakwater project, observing 76 in the 2015–2016 project season (NOAA 2017).

In the Western North Atlantic, the harbor porpoise stock is found in U.S. and Canadian Atlantic waters. Any harbor porpoises encountered during the proposed project would be part of the Gulf of Maine-Bay of Fundy stock. A current trend analysis has not been conducted for this stock (Waring *et al.* 2016). During the winter months (January to March), medium densities are found in waters off of New Brunswick, Canada to NY. During the spring (April to June) and fall (October to December), harbor porpoises are widely dispersed from ME to NJ, with lower densities farther north and south (Waring *et al.* 2016). In the summer (July to September), harbor porpoises are concentrated in the northern Gulf of Maine and southern Bay of Fundy region, generally in waters less than 150 m deep (Gaskin 1977; Kraus *et al.* 1983; Palka 1995a, 1995b as cited in Waring *et al.* 2016), with a few sightings in the upper Bay of Fundy and on Georges Bank (Palka 2000 as cited in Waring *et al.* 2016). Harbor porpoises reside in northern temperate and subarctic coastal and offshore waters. They are commonly found in bays, estuaries, harbors, and fjords less than 200 m (650 feet) deep.

Gray Seal

Gray seals in the area would be from the Western North Atlantic stock which ranges from New Jersey to Labrador (Davies 1957; Mansfield 1966; Katona *et al.* 1993; Lesage and Hammill 2001). Pupping occurs in January and February and mainly occurs on rocky ledges in Maine (Kenny 2020). Over the past 30 years, gray seal pupping has increased in Maine and Massachusetts (MA) (Wood *et al.* 2019), with 515 pups observed between 2 sites in Maine 2008 (Kenny 2020), and 2 more additional pupping sights identified in 2010 (Waring *et al.* 2010). After the breeding season in January and February, gray seals have a pelagic feeding period February through April, and then a molting period in which they are hauled-out May through June (Kenny 2020). Harbor seals and gray seals are frequently observed together (NOAA Fisheries 2022) which is why in the Eastport monitoring project harbor and gray seal observations were combined. During the 2015–2016 construction period, 916 harbor seals and gray seals were observed in the area (Maine DOT 2017). According to NMFS Northeast Fisheries Science Center (NEFSC), there are two nearby haulouts, Quoddy Narrow Rocks and Spectacle Island Ledge 2 (NEFSC 2025), but overall gray seals are not as commonly seen in the project area as harbor seals.

Harbor Seal

Harbor seals in the project area would be from the Western North Atlantic stock (Katona *et al.* 1993). This stock can be found from Canada to the northern United States, but they mainly reside and reproduce in Maine where they can be found year-round (Hayes *et al.* 2023). The number of harbor seals will likely increase in the project area before and during pupping season which usually occurs May through June (Temte *et al.* 1991, NOAA Fisheries 2021, Marine Mammals of Maine 2024). As previously mentioned, harbor seals and gray seals are generally observed together, so their observations were combined in the Eastport Breakwater Project. During the 2015–2016 construction period, 916 harbor seals and gray seals were observed, and during the 2016–2017 project season, 44 harbor seals were observed (NOAA 2017).

On the east coast, harbor seals range from the Canadian Arctic to southern New England, New York, and occasionally the Carolinas. Seals are year-round inhabitants of the coastal waters of Maine and eastern Canada (Katona *et al.* 1993 as cited in Waring *et al.* 2016). Harbor seals can be observed year-round in Cobscook Bay. According to NEFSC, between 2010 and 2018 there was an average of 550 adults harbor seals observed and around 100 pups observed each year in Cobscook Bay (Sigourney *et al.* 2021).

Marine Mammal Hearing

Hearing is the most important sensory modality for marine mammals underwater, and exposure to anthropogenic sound can have deleterious effects. To appropriately assess the potential effects of exposure to sound, it is necessary to understand the frequency ranges marine mammals are able to hear. Not all marine mammal species have equal hearing capabilities (*e.g.,* Richardson *et al.* 1995; Wartzok and Ketten, 1999; Au and Hastings, 2008). To reflect this, Southall *et al.* (2007, 2019) recommended that marine mammals be divided into hearing groups based on directly measured (behavioral or auditory evoked potential techniques) or estimated hearing ranges (behavioral response data, anatomical modeling, *etc.*). Subsequently, NMFS (2024) updated generalized hearing ranges for these marine mammal hearing groups. Generalized hearing ranges were chosen based on the ~65 decibel (dB) threshold from composite audiograms, previous analyses in NMFS (2018), and/or data from Southall *et al.* (2007) and Southall *et al.* (2019). Marine mammal hearing groups and their associated hearing ranges are provided in table 3.

TABLE 3—MARINE MAMMAL HEARING GROUPS

[NMFS 2024]

Hearing group	Generalized hearing range *
Underwater	
Low-frequency (LF) cetaceans (baleen whales)	7 Hz to 36 kHz.
High-frequency (HF) cetaceans (dolphins, toothed whales, beaked whales, bottlenose whales)	150 Hz to 160 kHz.
Very High-frequency (VHF) cetaceans (true porpoises, *Kogia,* river dolphins, Cephalorhynchid, *Lagenorhynchus cruciger* & *L. australis*).	200 Hz to 165 kHz.
Phocid pinnipeds (PW) (underwater) (true seals)	40 Hz to 90 kHz.
Otariid pinnipeds (OW) (underwater) (sea lions and fur seals)	60 Hz to 68 kHz.
In-Air	
Phocid pinnipeds (PA) (true seals)	42 Hz to 52 kHz.
Otariid pinnipeds (OA) (sea lions and fur seals)	90 Hz to 40 kHz.

* Represents the generalized hearing range for the entire group as a composite (*i.e.,* all species within the group), where individual species' hearing ranges may not be as broad. Generalized hearing range chosen based on ~65 dB threshold from composite audiogram, previous analysis in NMFS 2018, and/or data from Southall *et al.* 2007; Southall *et al.* 2019. Additionally, animals are able to detect very loud sounds above and below that ''generalized'' hearing range.

For more detail concerning these groups and associated frequency ranges, please see NMFS (2024) for a review of available information.

Potential Effects of Specified Activities on Marine Mammals and Their Habitat

This section provides a discussion of the ways in which components of the specified activity may impact marine mammals and their habitat. The Estimated Take of Marine Mammals section later in this document includes a quantitative analysis of the number of individuals that are expected to be taken by this activity. The Negligible Impact Analysis and Determination section considers the content of this section, the Estimated Take of Marine Mammals section, and the Proposed Mitigation section, to draw conclusions regarding the likely impacts of these activities on the reproductive success or survivorship of individuals and whether those impacts are reasonably expected to, or reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.

Description of Sound Sources

The marine soundscape is comprised of both ambient and anthropogenic sounds. Ambient sound is defined as the all-encompassing sound in a given place and is usually a composite of sound from many sources both near and far (ANSI 1995). The sound level of an area is defined by the total acoustical energy being generated by known and unknown sources. These sources may include physical (*e.g.,* waves, wind, precipitation, earthquakes, ice, atmospheric sound), biological (*e.g.,* sounds produced by marine mammals, fish, and invertebrates), and anthropogenic sound (*e.g.,* vessels, dredging, aircraft, construction).

The sum of the various natural and anthropogenic sound sources at any given location and time which comprise ''ambient'' or ''background'' sound depends not only on the source levels (as determined by current weather conditions and levels of biological and shipping activity) but also on the ability of sound to propagate through the environment. In turn, sound propagation is dependent on the spatially and temporally varying properties of the water column and sea floor, and is frequency-dependent. As a result of the dependence on a large number of varying factors, ambient sound levels can be expected to vary widely over both coarse and fine spatial and temporal scales. Sound levels at a given frequency and location can vary by 10–20 dB from day to day (Richardson *et al.,* 1995). The result is that, depending on the source type and its intensity, sound from the specified activities may be a negligible addition to the local environment or could form a distinctive signal that may affect marine mammals.

In-water construction activities associated with the project would include impact pile driving, vibratory pile driving, vibratory pile removal, and DTH drilling. The sounds produced by these activities fall into one of two general sound types: impulsive and non-impulsive. Impulsive sounds (*e.g.,* explosions, gunshots, sonic booms, impact pile driving) are typically transient, brief (less than 1 second), broadband, and consist of high peak sound pressure with rapid rise time and rapid decay (ANSI, 1986; NIOSH, 1998; ANSI, 2005; NMFS, 2024). Non-impulsive sounds (*e.g.,* aircraft, machinery operations such as drilling or dredging, vibratory pile driving, and active sonar systems) can be broadband, narrowband or tonal, brief or prolonged (continuous or intermittent), and typically do not have the high peak sound pressure with rapid rise/decay time that impulsive sounds do (ANSI, 1995; NIOSH, 1998; NMFS, 2024). The distinction between these two sound types is important because they have differing potential to cause physical effects, particularly with regard to hearing (*e.g.,* Southall *et al.* 2007).

Three types of hammers would be used on this project: impact, vibratory, and DTH. Impact hammers operate by repeatedly dropping and/or pushing a heavy piston onto a pile to drive the pile into the substrate. Sound generated by impact hammers is characterized by rapid rise times and high peak levels, a potentially injurious combination (Hastings and Popper, 2005). Vibratory hammers install piles by vibrating them and allowing the weight of the hammer to push them into the sediment. Vibratory hammers produce significantly less sound than impact hammers. Peak Sound Pressure Levels (SPLs) may be 180 dB or greater, but are generally 10 to 20 dB lower than SPLs generated during impact pile driving of the same-sized pile (Oestman *et al.,* 2009). Rise time is slower, reducing the probability and severity of injury, and sound energy is distributed over a greater amount of time (Nedwell and Edwards, 2002; Carlson *et al.,* 2005). A DTH hammer is essentially a drill bit that drills through the bedrock using a rotating function like a normal drill, in concert with a hammering mechanism operated by a pneumatic (or sometimes

hydraulic) component integrated into to the DTH hammer to increase speed of progress through the substrate (*i.e.,* it is similar to a ''hammer drill'' hand tool). The sounds produced by the DTH method contain both a continuous, non-impulsive component from the drilling action and an impulsive component from the hammering effect. Therefore, we treat DTH systems as both impulsive and continuous, non-impulsive sound source types simultaneously.

Potential or likely impacts on marine mammals from ME DOT's proposed construction include both non-acoustic and acoustic stressors. Non-acoustic stressors include the physical presence of equipment, vessels, and personnel. However, impacts from ME DOT's proposed construction is expected to primarily be acoustic in nature. Expected stressors from ME DOT's proposed activities are expected to be a result of heavy equipment operation for impact driving, DTH drilling, and vibratory driving and removal.

Acoustic Impact

The introduction of anthropogenic noise into the aquatic environment from pile driving and removal and DTH equipment is the primary means by which marine mammals may be harassed from ME DOT's specified activities. In general, animals exposed to natural or anthropogenic sound may experience behavioral, physiological, and/or physical effects, ranging in magnitude from none to severe (Southall *et al.,* 2007). Generally, exposure to pile driving and removal and DTH noise has the potential to result in behavioral reactions (*e.g.,* avoidance, temporary cessation of foraging and vocalizing, changes in dive behavior) and, in limited cases, auditory threshold shifts (TS). Exposure to anthropogenic noise can also lead to non-observable physiological responses such as an increase in stress hormones. Additional noise in a marine mammal's habitat can mask acoustic cues used by marine mammals to carry out daily functions such as communication and predator and prey detection. The effects of pile driving and removal and DTH noise on marine mammals are dependent on several factors, including but not limited to sound type (*e.g.,* impulsive vs. non-impulsive), the species, age and sex class (*e.g.,* adult male vs. mother with calf), duration of exposure, the distance between the pile and the animal, received levels, behavior at time of exposure, and previous history with exposure (Wartzok *et al.,* 2003; Southall *et al.,* 2007). Here we discuss physical auditory effects (TSs) followed by behavioral effects and potential impacts on habitat.

NMFS defines a noise-induced TS as a change, usually an increase, in the threshold of audibility at a specified frequency or portion of an individual's hearing range above a previously established reference level (NMFS, 2024). The amount of TS is customarily expressed in dB. A TS can be permanent or temporary. As described in NMFS (2024), there are numerous factors to consider when examining the consequence of TS, including, but not limited to, the signal temporal pattern (*e.g.,* impulsive or non-impulsive), likelihood an individual would be exposed for a long enough duration or to a high enough level to induce a TS, the magnitude of the TS, time to recovery (seconds to minutes or hours to days), the frequency range of the exposure (*i.e.,* spectral content), the hearing and vocalization frequency range of the exposed species relative to the signal's frequency spectrum (*i.e.,* how animal uses sound within the frequency band of the signal; *e.g.,* Kastelein *et al.,* 2014), and the overlap between the animal and the source (*e.g.,* spatial, temporal, and spectral).

Permanent Threshold Shift (PTS)—NMFS defines PTS as a permanent, irreversible increase in the threshold of audibility at a specified frequency or portion of an individual's hearing range above a previously established reference level (NMFS, 2024). Available data from humans and other terrestrial mammals indicate that a 40 dB TS approximates PTS onset (Ward *et al.,* 1958; Ward *et al.,* 1959; Ward, 1960; Kryter *et al.,* 1966; Miller, 1974; Henderson *et al.,* 2008). PTS levels for marine mammals are estimates, because there are limited empirical data measuring PTS in marine mammals (*e.g.,* Kastak *et al.,* 2008), largely due to the fact that, for various ethical reasons, experiments involving anthropogenic noise exposure at levels inducing PTS are not typically pursued or authorized (NMFS, 2024).

Temporary Threshold Shift (TTS)—NMFS defines TTS as a temporary, reversible increase in the threshold of audibility at a specified frequency or portion of an individual's hearing range above a previously established reference level (NMFS, 2024). Based on data from cetacean TTS measurements (Southall *et al.,* 2007), a TTS of 6 dB is considered the minimum TS clearly larger than any day-to-day or session-to-session variation in a subject's normal hearing ability (Schlundt *et al.,* 2000; Finneran *et al.,* 2000; Finneran *et al.,* 2002). As described in Finneran (2016), marine mammal studies have shown the amount of TTS increases with cumulative sound exposure level (SEL_{cum}) in an accelerating fashion: At low exposures with lower $SEL_{cum,}$ the amount of TTS is typically small and the growth curves have shallow slopes. At exposures with higher $SEL_{cum,}$ the growth curves become steeper and approach linear relationships with the noise SEL.

Depending on the degree (elevation of threshold in dB), duration (*i.e.,* recovery time), and frequency range of TTS, and the context in which it is experienced, TTS can have effects on marine mammals ranging from discountable to serious (similar to those discussed in *Masking,* below). For example, a marine mammal may be able to readily compensate for a brief, relatively small amount of TTS in a non-critical frequency range that takes place during a time when the animal is traveling through the open ocean, where ambient noise is lower and there are not as many competing sounds present. Alternatively, a larger amount and longer duration of TTS sustained during time when communication is critical for successful mother/calf interactions could have more serious impacts. We note that reduced hearing sensitivity as a simple function of aging has been observed in marine mammals, as well as humans and other taxa (Southall *et al.,* 2007), so we can infer that strategies exist for coping with this condition to some degree, though likely not without cost.

Currently, TTS data only exist for four species of cetaceans (bottlenose dolphin (*Tursiops truncatus*), beluga whale (*Delphinapterus leucas*), harbor porpoise, and Yangtze finless porpoise (*Neophocoena asiaeorientalis*) and five species of pinnipeds exposed to a limited number of sound sources (*i.e.,* mostly tones and octave-band noise) in laboratory settings (Finneran, 2015). TTS was not observed in trained spotted (*Phoca largha*) and ringed (*Pusa hispida*) seals exposed to impulsive noise at levels matching previous predictions of TTS onset (Reichmuth *et al.,* 2016). In general, harbor seals and harbor porpoises have a lower TTS onset than other measured pinniped or cetacean species (Finneran, 2015). Additionally, the existing marine mammal TTS data come from a limited number of individuals within these species. No data are available on noise-induced hearing loss for mysticetes. For summaries of data on TTS in marine mammals or for further discussion of TTS onset thresholds, please see Southall *et al.* (2007), Finneran and Jenkins (2012), Finneran (2015), and table 4 in NMFS Updated Acoustic Guidance (2024).

Activities for this project include impact and vibratory pile driving, vibratory pile removal, and DTH drilling. There would likely be pauses in activities producing the sound during each day. Given these pauses and the fact that many marine mammals are likely moving through the project areas and not remaining for extended periods of time, the potential for TS declines.

Behavioral Effects—Behavioral disturbance may include a variety of effects, including subtle changes in behavior (*e.g.,* minor or brief avoidance of an area or changes in vocalizations), more conspicuous changes in similar behavioral activities, and more sustained and/or potentially severe reactions, such as displacement from or abandonment of high-quality habitat. Behavioral responses to sound are highly variable and context-specific, and any reactions depend on numerous intrinsic and extrinsic factors (*e.g.,* species, state of maturity, experience, current activity, reproductive state, auditory sensitivity, time of day), as well as the interplay between factors (*e.g.,* Richardson *et al.,* 1995; Wartzok *et al.,* 2003; Southall *et al.,* 2007; Weilgart, 2007; Archer *et al.,* 2010). Behavioral reactions can vary not only among individuals but also within an individual, depending on previous experience with a sound source, context, and numerous other factors (Ellison *et al.,* 2012), and can vary depending on characteristics associated with the sound source (*e.g.,* whether it is moving or stationary, number of sources, distance from the source). Please see appendices B–C of Southall *et al.* (2007) for a review of studies involving marine mammal behavioral responses to sound.

Habituation can occur when an animal's response to a stimulus wanes with repeated exposure, usually in the absence of unpleasant associated events (Wartzok *et al.,* 2003). It is important to note that habituation is appropriately considered as a ''progressive reduction in response to stimuli that are perceived as neither aversive nor beneficial,'' rather than as, more generally, moderation in response to human disturbance (Bejder *et al.,* 2009). Animals are most likely to habituate to sounds that are predictable and unvarying. The opposite process is sensitization, when an unpleasant experience leads to subsequent responses, often in the form of avoidance, at a lower level of exposure.

Available studies show wide variation in response to underwater sound; therefore, it is difficult to predict specifically how any given sound in a particular instance might affect marine mammals perceiving the signal. If a marine mammal does react briefly to an underwater sound by changing its behavior or moving a small distance, the impacts of the change are unlikely to be significant to the individual, let alone the stock or population. However, if a sound source displaces marine mammals from an important feeding or breeding area for a prolonged period, impacts on individuals and populations could be significant (*e.g.,* Lusseau and Bejder, 2007; Weilgart, 2007; NRC, 2005). However, there are broad categories of potential response, which we describe in greater detail here, that include alteration of dive behavior, alteration of foraging behavior, effects to breathing, interference with or alteration of vocalization, avoidance, and flight.

Changes in dive behavior can vary widely, and may consist of increased or decreased dive times and surface intervals as well as changes in the rates of ascent and descent during a dive (*e.g.,* Frankel and Clark, 2000; Costa *et al.,* 2003; Ng and Leung, 2003; Nowacek *et al.,* 2004; Goldbogen *et al.,* 2013). Variations in dive behavior may reflect interruptions in biologically significant activities (*e.g.,* foraging) or they may be of little biological significance. The impact of an alteration to dive behavior resulting from an acoustic exposure depends on what the animal is doing at the time of the exposure and the type and magnitude of the response.

Disruption of feeding behavior can be difficult to correlate with anthropogenic sound exposure, so it is usually inferred by observed displacement from known foraging areas, the appearance of secondary indicators (*e.g.,* bubble nets or sediment plumes), or changes in dive behavior. As for other types of behavioral response, the frequency, duration, and temporal pattern of signal presentation, as well as differences in species sensitivity, are likely contributing factors to differences in response in any given circumstance (*e.g.,* Croll *et al.,* 2001; Nowacek *et al.,* 2004; Madsen *et al.,* 2006; Yazvenko *et al.,* 2007; Melcón *et al.,* 2012). In addition, behavioral state of the animal plays a role in the type and severity of a behavioral response, such as disruption to foraging (*e.g.,* Wensveen *et al.,* 2017). An evaluation of whether foraging disruptions would be likely to incur fitness consequences considers temporal and spatial scale of the activity in the context of the available foraging habitat and, in more severe cases may necessitate consideration of information on or estimates of the energetic requirements of the affected individuals and the relationship between prey availability, foraging effort and success, and the life history stage of the animal.

Masking—Sound can disrupt behavior through masking, or interfering with, an animal's ability to detect, recognize, or discriminate between acoustic signals of interest (*e.g.,* those used for intraspecific communication and social interactions, prey detection, predator avoidance, navigation; Richardson *et al.* 1995). Masking occurs when the receipt of a sound is interfered with by another coincident sound at similar frequencies and at similar or higher intensity, and may occur whether the sound is natural (*e.g.,* snapping shrimp, wind, waves, precipitation) or anthropogenic (*e.g.,* pile driving, shipping, sonar, seismic exploration) in origin. The ability of a noise source to mask biologically important sounds depends on the characteristics of both the noise source and the signal of interest (*e.g.,* signal-to-noise ratio, temporal variability, direction), in relation to each other and to an animal's hearing abilities (*e.g.,* sensitivity, frequency range, critical ratios, frequency discrimination, directional discrimination, age or TTS hearing loss), and existing ambient noise and propagation conditions. Masking of natural sounds can result when human activities produce high levels of background sound at frequencies important to marine mammals. Conversely, if the background level of underwater sound is high (*e.g.,* on a day with strong wind and high waves), an anthropogenic sound source would not be detectable as far away as would be possible under quieter conditions and would itself be masked.

Airborne Acoustic Effects—Pinnipeds that occur near the project site could be exposed to airborne sounds associated with pile driving and removal that have the potential to cause behavioral harassment, depending on their distance from pile driving activities. Cetaceans are not expected to be exposed to airborne sounds that would result in harassment as defined under the MMPA.

Airborne noise would primarily be an issue for pinnipeds that are swimming near the project site within the range of noise levels exceeding the acoustic thresholds. We recognize that pinnipeds in the water could be exposed to airborne sound that may result in behavioral harassment when looking with their heads above water. Most likely, airborne sound would cause behavioral responses similar to those discussed above in relation to underwater sound. For instance, anthropogenic sound could cause pinnipeds to exhibit changes in their

normal behavior, such as reduction in vocalizations, or cause them to temporarily abandon the area and move further from the source. However, these animals would previously have been ''taken'' because of exposure to underwater sound above the behavioral harassment thresholds, which are in all cases larger than those associated with airborne sound. Thus, the behavioral harassment of these animals is already accounted for in these estimates of potential take. Therefore, we do not believe that authorization of incidental take resulting from airborne sound for pinnipeds is warranted, and airborne sound is not discussed further here.

Anticipated Effects on Marine Mammal Habitat

The proposed activities at the project site would not result in permanent impacts to habitats used directly by marine mammals, such as haul-out sites, but may have potential short-term impacts to food sources such as forage fish. There are no rookeries or major haul-out sites nearby, foraging hotspots, or other ocean bottom structures of significant biological importance to marine mammals that may be present in the marine waters in the vicinity of the project area. Therefore, the main impact issue associated with the proposed activity would be temporarily elevated sound levels and the associated direct effects on marine mammals, as discussed previously in this document. The most likely impact to marine mammal habitat occurs from pile driving effects on likely marine mammal prey (*i.e.,* fish) near the pier and minor impacts to the immediate substrate during installation of piles and removal of the old structure during the breakwater replacement project.

In-Water Construction Effect on Potential Foraging Habitat

Benthic communities at the Project site would be disturbed by construction of the Project due to seabed-disturbing activities such as impact pile driving, vibratory driving, DTH drilling, and vessel anchoring and spudding. However, the footprint of direct benthic disturbances (about 0.0142 km^2) is relatively small when compared to the rest of Johnson Bay (about 11.53 km^2) and the larger area of available, suitable, marine mammal habitat. Benthic disturbance is not expected to result in a significant permanent loss or alteration of habitat for marine mammals or their prey. The greatest potential impact on marine mammal habitat resulting from construction of the project would be the temporary loss of habitat, short-term displacement, and decrease in availability of prey due to elevated noise levels and localized increased turbidity associated with pile installation activities.

In-water pile driving and drilling activities associated with the project will result in short-term increases in underwater noise levels. Underwater sounds could have physiological and behavioral impacts on fish, which are a primary dietary component of the marine mammals discussed in this application. Additionally, pile installation and vessel anchoring/spudding could cause temporary increases in turbidity and loss of bottom habitat, which could impact fish, in addition to the potential for direct injury or mortality to bottom-dwelling species within the limits of disturbance. Given that the construction schedule for the project is limited to 234 days of activity, permanent deterrence of fish from the area for foraging would not occur. In addition, noise impacts would be localized to the immediate vicinity of the breakwater and associated project components. Similar habitat is found throughout the surrounding bays; it is anticipated that displaced fish species would find suitable habitat nearby during active construction. Based on the short duration of pile driving and drilling activities, the abundance of available fish habitat adjacent to the project site, and implementation of mitigation and minimization measures, impacts on fish and thereby cetacean foraging from in-water construction would be short term and minor.

Effects on Potential Prey

Construction activities would produce both impulsive (*i.e.,* impact pile driving and DTH) and continuous (*i.e.,* vibratory pile driving and DTH) sounds. Fish react to sounds which are especially strong and/or intermittent low-frequency sounds. Short duration, sharp sounds can cause overt or subtle changes in fish behavior and local distribution. Hastings and Popper (2005, 2009) identified several studies that suggest fish may relocate to avoid certain areas of sound energy. Additional studies have documented effects of pile driving (or other types of continuous sounds) on fish, although several are based on studies in support of large, multiyear bridge construction projects (*e.g.,* Scholik and Yan 2001, 2002; Popper and Hastings 2009). Sound pulses at received levels of 160 dB re 1 µPa may cause subtle changes in fish behavior. SPLs of 180 dB may cause noticeable changes in behavior (Pearson *et al.* 1992; Skalski *et al.* 1992). SPLs of sufficient strength may cause injury to fish and fish mortality. The most likely impact to fish from pile driving at the project area would be temporary behavioral avoidance of the area. The duration of fish avoidance of this area after these activities stop is unknown, but a rapid return to normal recruitment, distribution and behavior is anticipated. In general, impacts to marine mammal prey species are expected to be minor and temporary due to the short timeframe for the pier replacement project.

Estimated Take of Marine Mammals

This section provides an estimate of the number of incidental takes proposed for authorization through the IHA, which will inform NMFS' consideration of ''small numbers,'' the negligible impact determinations, and impacts on subsistence uses. Harassment is the only type of take expected to result from these activities. Except with respect to certain activities not pertinent here, section 3(18) of the MMPA defines ''harassment'' as any act of pursuit, torment, or annoyance, which (i) has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment).

Authorized takes would primarily be by Level B harassment, as certain construction activities (*i.e.,* pile driving and DTH drilling) have the potential to result in disruption of behavioral patterns for individual marine mammals. There is also some potential for auditory injury (Level A harassment) to result, primarily for very high frequency cetacean species and phocids because predicted auditory injury zones are larger than for low-frequency and high-frequency cetacean species. Auditory injury is unlikely to occur for low frequency and high frequency cetacean species. The proposed mitigation and monitoring measures are expected to minimize the severity of the taking to the extent practicable.

As described previously, no serious injury or mortality is anticipated or proposed to be authorized for this activity. Below we describe how the proposed take numbers are estimated.

For acoustic impacts, generally speaking, we estimate take by considering: (1) acoustic criteria above which NMFS believes the best available science indicates marine mammals will likely be behaviorally harassed or incur some degree of auditory injury; (2) the area or volume of water that will be ensonified above these levels in a day;

(3) the density or occurrence of marine mammals within these ensonified areas; and, (4) the number of days of activities. We note that while these factors can contribute to a basic calculation to provide an initial prediction of potential takes, additional information that can qualitatively inform take estimates is also sometimes available (*e.g.,* previous monitoring results or average group size). Below, we describe the factors considered here in more detail and present the proposed take estimates.

Acoustic Criteria

NMFS recommends the use of acoustic criteria that identify the received level of underwater sound above which exposed marine mammals would be reasonably expected to be behaviorally harassed (equated to Level B harassment) or to incur auditory injury (AUD INJ) of some degree (equated to Level A harassment). We note that the criteria for AUD INJ, as well as the names of two hearing groups, have been recently updated (NMFS 2024) as discussed below in the Level A harassment section.

Level B Harassment—Though significantly driven by received level, the onset of behavioral disturbance from anthropogenic noise exposure is also informed to varying degrees by other factors related to the source or exposure context (*e.g.,* frequency, predictability, duty cycle, duration of the exposure, signal-to-noise ratio, distance to the source), the environment (*e.g.,* bathymetry, other noises in the area, predators in the area), and the receiving animals (hearing, motivation, experience, demography, life stage, depth) and can be difficult to predict (*e.g.,* Southall *et al.,* 2007, 2021, Ellison *et al.,* 2012). Based on what the available science indicates and the practical need to use a threshold based on a metric that is both predictable and measurable for most activities, NMFS typically uses a generalized acoustic threshold based on received level to estimate the onset of behavioral harassment. NMFS generally predicts that marine mammals are likely to be behaviorally harassed in a manner considered to be Level B harassment when exposed to underwater anthropogenic noise above root-mean-squared pressure received levels (RMS SPL) of 120 dB (referenced to 1 re 1 µPa) for continuous (*e.g.,* vibratory pile driving, drilling) and above RMS SPL 160 dB re 1 µPa for non-explosive impulsive (*e.g.,* seismic airguns) or intermittent (*e.g.,* scientific sonar) sources. Generally speaking, Level B harassment take estimates based on these behavioral harassment thresholds are expected to include any likely takes by TTS as, in most cases, the likelihood of TTS occurs at distances from the source less than those at which behavioral harassment is likely. TTS of a sufficient degree can manifest as behavioral harassment, as reduced hearing sensitivity and the potential reduced opportunities to detect important signals (conspecific communication, predators, prey) may result in changes in behavior patterns that would not otherwise occur.

ME DOT's proposed activity includes the use of continuous (vibratory pile driving and removal and DTH drilling) and impulsive (impact pile driving and DTH drilling), and therefore the RMS SPL thresholds of 120 and 160 dB re 1 µPa are applicable.

Level A Harassment—NMFS' 2024 Updated Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 3.0) (Technical Guidance, 2024) identifies dual criteria to assess auditory injury (Level A harassment) to five different underwater marine mammal groups (based on hearing sensitivity) as a result of exposure to noise from two different types of sources (impulsive or non-impulsive). ME DOT's proposed activity includes the use of impulsive (impact pile driving and DTH drilling) and non-impulsive (vibratory pile driving and removal) sources.

The 2024 Updated Technical Guidance criteria include both updated thresholds and updated weighting functions for each hearing group. The thresholds are provided in the table below. The references, analysis, and methodology used in the development of the criteria are described in NMFS' 2024 Updated Technical Guidance, which may be accessed at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance-other-acoustic-tools.*

TABLE 4—THRESHOLDS IDENTIFYING THE ONSET OF AUDITORY INJURY

Hearing group	AUD INJ onset acoustic thresholds* (received level)	
	Impulsive	Non-impulsive
Low-Frequency (LF) Cetaceans	*Cell 1:* $L_{pk,flat}$: 222 dB; $L_{E,LF,24h,}$: 183 dB	*Cell 2:* $L_{E,LF,24h}$: 197 dB.
High-Frequency (HF) Cetaceans	*Cell 3:* $L_{pk,flat}$: 230 dB; $L_{E,HF,24h}$: 193 dB	*Cell 4:* $L_{E,HF,24h}$: 201 dB.
Very High-Frequency (VHF) Cetaceans	*Cell 5:* $L_{pk,flat}$: 202 dB; $L_{E,VHF,24h}$: 159 dB	*Cell 6:* $L_{E,VHF,24h}$: 181 dB.
Phocid Pinnipeds (PW) (Underwater)	*Cell 7:* $L_{pk,flat}$: 223 dB; $L_{E,PW,24h}$: 183 dB	*Cell 8:* $L_{E,PW,24h}$: 195 dB.
Otariid Pinnipeds (OW) (Underwater)	*Cell 9:* $L_{pk,flat}$: 230 dB; $L_{E,OW,24h}$: 185 dB	*Cell 10:* $L_{E,OW,24h}$: 199 dB.

* Dual metric criteria for impulsive sounds: Use whichever criteria results in the larger isopleth for calculating AUD INJ onset. If a non-impulsive sound has the potential of exceeding the peak sound pressure level criteria associated with impulsive sounds, the PK SPL criteria are recommended for consideration for non-impulsive sources.

Note: Peak sound pressure level ($L_{p,0\text{-}pk}$) has a reference value of 1 µPa, and weighted cumulative sound exposure level ($L_{E,p}$) has a reference value of 1 μPa^2s. In this table, criteria are abbreviated to be more reflective of International Organization for Standardization (ISO) standards (ISO 2017; ISO 2020). The subscript "flat" is being included to indicate peak sound pressure are flat weighted or unweighted within the generalized hearing range of marine mammals underwater (*i.e.,* 7 Hz to 165 kHz). The subscript associated with cumulative sound exposure level criteria indicates the designated marine mammal auditory weighting function (LF, HF, and VHF cetaceans, and PW and OW pinnipeds) and that the recommended accumulation period is 24 hours. The weighted cumulative sound exposure level criteria could be exceeded in a multitude of ways (*i.e.,* varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these criteria will be exceeded.

Ensonified Area

Here, we describe operational and environmental parameters of the activity that are used in estimating the area ensonified above the acoustic thresholds, including source levels and transmission loss coefficient.

The sound field in the project area is the existing background noise plus additional construction noise from the proposed project. Marine mammals are expected to be affected via sound generated by the primary components of the project (*i.e.,* pile driving and removal and DTH drilling). The

maximum (underwater) area ensonified above the thresholds for behavioral harassment referenced above is approximately 29 km² for the total area, and 11 km² in U.S. waters.

The project includes vibratory pile installation and removal, impact pile driving, and DTH drilling. Source levels for these activities are based on reviews of measurements of the same or similar types and dimensions of piles available in the literature and proxies from similar, previous projects. Source levels for each pile size and activity are presented in table 5. Source levels for vibratory installation and removal of piles of the same diameter are assumed to be the same.

TABLE 5—PROXY SOUND SOURCE LEVELS FOR PILE INSTALLATION ACTIVITY

Project component	Pile type	Installation method	Proxy	Reference	Distance to measurement (m)	Source levels (re 1μPa)		
						Peak	SEL	RMS
PSP	36" Diameter Steel Pipe Piles.	DTH Drilling	25″ to 42″ piles	NMFS 2022b, Denes *et al.* 2019, Reyff and Heyvaert 2019, Reyff 2020.	10	194	164	174
Floating Docks	24–30″ Diameter Steel Pipe Piles.[2]							
Falsework Platform	14″ Diameter Steel H Piles.	Vibratory Pile Driving.	14″ steel H pile	Caltrans 2015, NMFS 2022a.	10			150
		Impact Pile Driving			10	200	183	170

[1] As a conservative measure, the same proxy measurements were used for both the PSP and the floating docks due to their pile design and installation method similarities.
[2] For the purpose of this IHA, it is assumed that a 30-inch pile would be used to install the floating docks.
[3] DTH drilling is considered an impulsive sound source for Level A harassment calculations, and a non-impulsive source for Level B harassment calculations.

NMFS recommends treating DTH systems as both impulsive and continuous, non-impulsive sound source types simultaneously. Thus, impulsive thresholds are used to evaluate Level A harassment, and continuous thresholds are used to evaluate Level B harassment. With regards to DTH mono-hammers, NMFS recommends proxy levels for Level A harassment based on available data regarding DTH systems of similar sized piles and holes (Denes *et al.,* 2019, Reyff and Heyvaert 2019, Reyff 2020) (table 1 and table 6 includes number of piles and duration; table 5 includes sound pressure and sound exposure levels for each pile type).

ME DOT proposed to use bubble curtains for all PSP and floating dock construction which will use DTH drilling. We assume here that use of the bubble curtain would result in a reduction of 5 dB from the assumed SPL (rms) and SPL (peak) source levels for these pile sizes, and reduce the applied source levels accordingly.

Transmission loss (TL) is the decrease in acoustic intensity as an acoustic pressure wave propagates out from a source. *TL* parameters vary with frequency, temperature, sea conditions, current, source and receiver depth, water depth, water chemistry, and bottom composition and topography. The general formula for underwater *TL* is:

$$TL = B \times \mathrm{Log}_{10}(R_1/R_2),$$

where:

TL = transmission loss in dB
B = transmission loss coefficient
R_1 = the distance of the modeled SPL from the driven pile, and
R_2 = the distance from the driven pile of the initial measurement

This formula neglects loss due to scattering and absorption, which is assumed to be zero here. The degree to which underwater sound propagates away from a sound source is dependent on a variety of factors, most notably the water bathymetry and presence or absence of reflective or absorptive conditions including in-water structures and sediments. Spherical spreading occurs in a perfectly unobstructed (free-field) environment not limited by depth or water surface, resulting in a 6–dB reduction in sound level for each doubling of distance from the source (20*log [range]). Cylindrical spreading occurs in an environment in which sound propagation is bounded by the water surface and sea bottom, resulting in a reduction of 3 dB in sound level for each doubling of distance from the source (10*log [range]). A practical spreading value of 15 is often used under conditions, such as the project site, where water increases with depth as the receiver moves away from the shoreline, resulting in an expected propagation environment that would lie between spherical and cylindrical spreading loss conditions. Practical spreading loss is assumed here.

The intensity of pile driving sounds is greatly influenced by factors such as the type of piles, hammers, and the physical environment in which the activity takes place. In order to calculate the distances to the Level A harassment and the Level B harassment sound thresholds for the methods and piles being used in this project, the applicant and NMFS used acoustic monitoring data from other locations to develop proxy source levels for the various pile types, sizes and methods. The project includes vibratory and impact pile installation of steel H piles and vibratory removal of steel H piles and DTH drilling of 36-inch steel pipe piles and 24 to 30-inch steel pipe piles. NMFS consulted multiple sources to determine valid proxy source levels for the construction planned. This is the best available data for pile source levels, and source levels for each pile size and driving method are presented in table 5.

The ensonified area associated with Level A harassment is more technically challenging to predict due to the need to account for a duration component. Therefore, NMFS developed an optional User Spreadsheet tool to accompany the 2024 Updated Technical Guidance that can be used to relatively simply predict an isopleth distance for use in conjunction with marine mammal density or occurrence to help predict potential takes. We note that because of some of the assumptions included in the methods underlying this optional tool, we anticipate that the resulting isopleth estimates are typically going to be overestimates of some degree, which may result in an overestimate of potential take by Level A harassment. However, this optional tool offers the best way to estimate isopleth distances when more sophisticated modeling methods are not available or practical. For stationary sources such as pile driving, the optional User Spreadsheet tool predicts the distance at which, if a marine mammal remained at that distance for the duration of the activity, it would be expected to incur AUD INJ. Inputs used in the optional User

Spreadsheet tool, and the resulting estimated isopleths, are reported below.

TABLE 6—USER SPREADSHEET INPUTS FOR CALCULATING LEVEL A AND B HARASSMENT ISOPLETHS

Pile size and installation method	Spreadsheet tab used	Weighting factor adjustment (kHz)	Number of strikes per pile	Number of piles per day	Activity duration (minutes)
14″ H Pile Vibratory Installation	A.1 Vibratory pile driving	2.5	N/A	5	30
14″ H Pile Vibratory Removal	A.1 Vibratory pile driving	2.5	N/A	5	30
14″ H Pile Impact Installation	E.1 Impact pile driving	2	150	5	N/A
24″–30″ Steel Pipe Piles DTH Drilling	E.2 DTH Drilling	2	N/A	0.5	780
36″ Steel Pipe Piles DTH Drilling	E.2 DTH Drilling	2	N/A	0.5	780

TABLE 7—CALCULATED LEVEL A AND LEVEL B HARASSMENT ISOPLETHS

Project component	Pile type	Installation method	Sound signal	Broadband noise attenuation [b] (dB)	Level A harassment (m)				Level B harassment (m)
					LF cetaceans	HF cetaceans	VHF cetaceans	PW pinnipeds	All marine mammals
PSP & Floating Docks.[a]	24–30″ Diameter Steel Pipe Piles.	DTH Drilling	Non-Impulsive & Impulsive.	5	1,243.6	158.7	1,924.5 (1,817.0)	1,104.8	18,478.5 (6,335.9)
Falsework Platform	14″ Diameter Steel H Piles.	Vibratory Pile Driving and Removal.	Non-Impulsive	0	3.1	1.2	2.6	4.0	1,000
		Impact Pile Driving	Impulsive	0	821.4	104.8	1,271.0	729.7	46.4

[a] The isopleths for PSP & floating dock piles for Level A harassment (VHF cetaceans) and Level B harassment (all marine mammals) extend into Canadian waters. Isopleths in parentheses represent the truncated radii within US waters only.
[b] A NAS (noise attenuation system) will be deployed during all phases of PSP/floating dock pile installation. No NAS is planned during falsework platform installation and removal.

TABLE 8—THE CALCULATED ZOIS (ZONE OF INFLUENCE) FOR EACH PROJECT COMPONENT AND INSTALLATION AND REMOVAL ACTIVITY

Project component	Pile type	Installation method	Broadband noise attenuation [b] (dB)	Level A ZOI (km^2)				Level B ZOI (km^2)
				LF cetaceans	HF cetaceans	VHF cetaceans	PW pinnipeds	All marine mammals
PSP & Floating Docks.[a]	36″ Diameter Steel Pipe Piles. 24–30″ Diameter Steel Pipe Piles.	DTH Drilling	5	2.633	0.079	4.485 (4.480)	2.167	29.336 (11.330)
Falsework Platform	14″ Diameter Steel H Piles.	Vibratory Pile Driving and Removal.	0	0.00003	0.000005	0.000021	0.00005	1.833
		Impact Pile Driving		1.337	0.035	2.726	1.121	0.007

[a] The ZOIs for PSP & floating dock piles for Level A VHF cetaceans and Level B harassment all marine mammals both extend into Canadian waters. ZOIs in parentheses represent the truncated zones within US waters only.
[b] A NAS will be deployed during all phases of PSP/floating dock pile installation. No NAS is planned during falsework platform installation and removal.

Marine Mammal Occurrence

In this section we provide information about the occurrence of marine mammals, including density and other relevant information which will inform the take calculations. Density estimates, scientific literature, local information, and monitoring data from the previous nearby Eastport Breakwater Project (Maine DOT 2015 & 2017) were used to inform take calculations. Density estimates were calculated using the 2023 density models from the Duke University Marine Geospatial Ecological Laboratory (Roberts *et al.,* 2016, 2023). The density models have 5 x 5 km spatial resolution cells with monthly density values for each cell. At the mouth of the Quoddy Narrows Inlet, ME are three density cells which represent the nearest density data to the project location. The maximum monthly density data from these three cells were used to determine density estimates for all cetacean species with regular or common presence in the area, *i.e.,* Atlantic white-sided dolphin, minke whale, common dolphin, and harbor porpoise (table 9). Local and recent monitoring data are available for harbor and gray seals near the project area. For seals, sighting records from nearby monitoring surveys are preferred because the data represent reliable detections of local species and may provide more detail and context to each sighting than what can be inferred from model results. Two nearby monitoring reports have been reviewed, and each contain sufficient detection data to calculate exposure estimates for this project (ME DOT 2015, 2017) (table 10 and table 11). Both monitoring reports contain PSO (protected species observer) detections during breakwater construction at Eastport, Maine, located in Washington County, in Cobscook Bay and situated approximately 4.83 km (3 mi) from the Lubec Safe Harbor Project Area.

TABLE 9—MAXIMUM ESTIMATED DENSITIES (ANIMALS/km^2) USED FOR EXPOSURE ESTIMATION

Species	Monthly densities (animals/km^2)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Minke whale	0.0001	0.0001	0.0002	0.002	0.005	**0.009**	0.008	0.007	0.004	0.003	0.0001	0.0001
Harbor seal [1]	0.128	0.162	0.120	0.134	0.228	0.855	**1.268**	1.037	0.669	0.473	0.043	0.063
Gray seal [1]	0.058	0.074	0.055	0.061	0.104	0.389	**0.577**	0.472	0.304	0.215	0.019	0.029
Harbor porpoise	0.073	0.102	0.099	0.116	0.101	1.661	2.951	**3.205**	2.531	1.966	1.743	0.050
Atlantic white-sided dolphin	0.021	0.017	0.013	0.017	0.032	0.049	0.038	0.025	0.037	**0.054**	0.033	0.033
Common dolphin	0.005	0.001	0.001	0.001	0.003	0.005	0.008	0.014	0.015	0.017	**0.019**	0.016

Source: Roberts *et al.,* 2016, 2023.
Note: Blue cells with **bold** values indicate the highest monthly density for each species.
[1] Density was adjusted by their relative abundance.

TABLE 10—INDIVIDUALS OBSERVED PER MONTH AT EASTPORT, MAINE BREAKWATER PROJECT 2015–2016 SEASON

Month	Number of seals observed
July 2015	190
August 2015	133
September 2015	139
November 2015	170
December 2015	20
January 2016	42
February 2016	13
March 2016	27
April 2016	22
May 2016	3
June 2016	11
Total	916

TABLE 11—INDIVIDUALS OBSERVED PER MONTH AT EASTPORT, MAINE BREAKWATER PROJECT 2017 SEASON

Month (2017)	Number of seals observed
January	0
February	3
March	14
April	12
May	15
Total	44

Take Estimation

Here we describe how the information provided above is synthesized to produce a quantitative estimate of the take that is reasonably likely to occur and proposed for authorization.

ME DOT estimated the take of marine mammals for the Lubec Safe Harbor Project using two different methods. Take for cetaceans was calculated using the 2023 density models from Duke University Marine Geospatial Ecological Laboratory (Roberts *et al.,* 2016, 2023). Take for seals was calculated based on monitoring data from two construction seasons of the nearby Eastport Breakwater Project in Eastport, Maine which is about 5 km away from Lubec.

As previously noted, NMFS cannot authorize incidental take under the MMPA that may occur within the territorial seas of foreign nations (from 0–12 nmi (nautical miles) (22.2 km) from shore), as the MMPA does not apply in those waters. However, NMFS has still calculated the estimated level of incidental take in the entire activity area (including Canadian territorial waters) as part of the analysis supporting our determination under the MMPA that the activity will have a negligible impact on the affected species. The total estimated take in U.S. and Canadian waters is presented in table 17 (see Negligible Impact Analysis and Determination). Take calculations for cetaceans used the maximum monthly density and equation 1 below. Take calculations for gray and harbor seals used monitoring data recorded from two construction seasons at the Eastport Breakwater Project and equation 2 below.

(1) Estimated Take = maximum monthly density (table 9) × ZOI for the specific pile-related activity (table 8) × total number of days of specific pile-related activity (table 1).

(2) Estimated Take = average daily number of observed individuals per month (table 13) × total number of days of specific pile-related activity per month (table 14).

Minke Whale

A total of 28 minke whales were observed during the Eastport Breakwater Project, and there is a small potential for them to overlap with the Lubec Project area. Use of the information and equation described above results in an estimated total of 56 minke whale takes, by Level B harassment only. However, NMFS proposes to authorize only the take of minke whales estimated to occur in US waters (23).

The largest Level A harassment zone for minke whales extends 1,244 m (table 7). ME DOT is planning to implement shutdown zones for low-frequency cetaceans that exceed the Level A harassment isopleth for all activities. Therefore, when considered in context of the expected low occurrence of minke whales in the area, implementation of the proposed shutdown zones is

expected to eliminate the potential for take by Level A harassment of minke whales. Therefore, no take by Level A harassment is anticipated or proposed for authorization for minke whales.

Atlantic White-Sided Dolphin

No Atlantic white-sided dolphins were observed during the Eastport Breakwater Project, and there is a small potential for them to overlap with the Lubec Project area. Use of the information and equation described above results in an estimated total of 334 Atlantic white-sided dolphin takes by Level B harassment only. However, NMFS proposes to authorize only the take of Atlantic white-sided dolphins estimated to occur in US waters (132). The largest Level A harassment zone for Atlantic white-sided dolphins extends 159 m from the noise source (table 7). ME DOT is planning to implement shutdown zones for high-frequency cetaceans that exceed the Level A harassment isopleth for all activities. Therefore, when considered in context of the expected rare occurrence of Atlantic white-sided dolphins in the area, implementation of the proposed shutdown zones is expected to eliminate the potential for take by Level A harassment of Atlantic white-sided dolphins. Therefore, no take by Level A harassment is anticipated or proposed for authorization for Atlantic white-sided dolphins.

Common Dolphin

No common dolphins were observed during the Eastport Breakwater Project, and there is a small potential for them to overlap with the Lubec Project area. Use of the information and equation described above results in an estimated total of 117 common dolphin takes by Level B harassment. However, NMFS proposes to authorize only the take of common dolphins estimated to occur in US waters (46).

The largest Level A harassment zone for common dolphins extends 159 m from the noise source (table 7). ME DOT is planning to implement shutdown zones for high-frequency cetaceans that exceed the Level A harassment isopleth for all activities. Therefore, when considered in context of the expected rare occurrence of common dolphins in the area, implementation of the proposed shutdown zones is expected to eliminate the potential for take by Level A harassment of common dolphins. Therefore, no take by Level A harassment is anticipated or proposed for authorization for common dolphins.

Harbor Porpoise

A total of 76 harbor porpoises were observed during the Eastport Breakwater Project, and they are expected to occur within the Lubec Project area. Use of the information and equation described above results in an estimated total of 17,580 harbor porpoise takes by Level B harassment. However, NMFS proposes to authorize only the take of harbor porpoises estimated to occur in US waters (5,473).

To estimate expected take by Level A harassment for species with larger Level A harassment zones and which are expected to occur more frequently (*i.e.,* harbor porpoise and seals), while accounting for implementation of shutdown zones (table 16), exposures within the estimated Level A harassment zones but outside the shutdown zones (where the Level A harassment zones are larger than the shutdown zones) (table 12) were calculated. Proportions of the total Level A harassment areas that are outside of the shutdown zones are shown in table 12. These percentages are then applied to the total Level A harassment estimates to calculate the expected instances of take by Level A harassment that are proposed for authorization. Where the estimated Level A harassment zones extend into Canadian waters, the associated estimates of take by Level A harassment are adjusted as described above for Level B harassment to ensure that only takes expected to occur within U.S. waters are authorized. Use of the information and equation described above results in an estimated total of 2,285 harbor porpoise takes by Level A harassment. However, NMFS proposes to authorize only the take of harbor porpoises estimated to occur in US waters (2,236).

TABLE 12—PROPORTION OF LEVEL A HARASSMENT ZOIS NOT PLANNED FOR CLEARANCE AND SHUTDOWN PROCEDURES [1]

Project component	Installation method	Proportion of Level A harassment areas outside of shutdown zones	
		VHF cetaceans (percent)	PW pinnipeds (percent)
PSP & Floating Docks	DTH Drilling	72.48 (74.02)	54.74
Falsework Platform	Impact Pile Driving	60.66	31.48

[1] The parenthetical percentage represent the proportion of ZOIs extending into Canadian waters and are not planned for clearance and shutdown procedures. The rest of the percentages are indicative of US-waters only.

Gray Seal

A total of 916 seals were observed during the 2015–2016 Eastport Breakwater Project 2015–2016 season. Seal data were combined as observers had difficulty differentiating in the field between harbor and gray seals. There is potential for gray seals to overlap with the Lubec Project area. Use of the information and equation described above results in an estimated total of 268 gray seal takes. However, NMFS proposes to authorize only the take of gray seals estimated to occur in US waters (132), with 92 (228 including Canadian waters) by Level B harassment and 40 by Level A harassment. Instances of Level A harassment versus Level B harassment was proportioned out by the number of days per activity and proportion of Level A and B harassment zone size. The number of days of DTH reflects 88.9% of activity while vibratory and impact pile driving represent 5.5% each. Once take was proportioned out into each activity it was further proportioned based on the size of the Level A and Level B harassment zone. DTH has about 10.5% of its Level A harassment zone within the Level B harassment zone, while due to shutdown procedures and zone size vibratory driving will only cause potential take by Level B harassment and impact driving will only cause potential take by Level A harassment.

Harbor Seal

A total of 916 seals were observed during the 2015–2016 Eastport Breakwater Project 2015–2016 season, seal data were combined as observers

had difficulty differentiating in the field between harbor and gray seals. However, there were 44 harbor seals observed during the 2017 construction season of the Eastport Project. There is potential for harbor seals to overlap with the Lubec Project area. Use of the information and equation described above results in an estimated total of 548 harbor seal takes. However, NMFS proposes to authorize only the take of gray seals estimated to occur in U.S. waters (301), with 220 (548 including Canadian waters) by Level B harassment and 81 by Level A harassment. Take by Level A versus Level B harassment was proportioned out by the number of days per activity and proportion of Level A and B harassment zone size. The number of days of DTH reflects 88.9% of activity while vibratory and impact pile driving represent 5.5% each. Once take was proportioned out into each activity it was further proportioned based on the size of the Level A and Level B harassment zone. DTH has about 10.5% of its Level A harassment zone within the Level B harassment zone, while due to shutdown procedures and zone size vibratory driving will only cause potential take by Level B harassment and impact driving will only cause potential take by Level A harassment.

TABLE 13—AVERAGE DAILY OBSERVED INDIVIDUAL ANIMALS DETECTED PER MONTH AT EASTPORT, MAINE BREAKWATER PROJECT

Observation month	Species detected at Eastport, Maine	
	Harbor seal	Gray seal
January	0.96	0.88
February	0.84	0.68
March	0.82	0.37
April	0.88	0.34
May	0.85	0.16
June	0.42	0.19
July	6.53	2.97
August	5.08	2.31
September	5.31	2.42
October	5.02	2.28
November	6.87	3.13
December	1.15	0.52

* Source Maine DOT

TABLE 14—MONTHLY CONSTRUCTION SCHEDULE FOR THE SAFE HARBOR PROJECT

Year	Month	Number of piles installed per month			Number of piles removed per month	Days of activity per month
		PSP piles	Floating dock piles	Falsework piles	Falsework piles	
2025	March	6		5	5	14
	April	6		5	5	14
	May	6		5	5	14
	June	6		5	5	14
	July	6		5	5	14
	August	6		5	5	14
	September	6		5	5	14
	October	6		5	5	14
	November	6		5	5	14
	December	6	8	5	5	30
	January	6	8	5	5	30
2026	February	6	8	5	5	30
	March		8	5	5	18
Total Piles		72	32	65	65	234
Total Days		144	64	13	13	234

The total take estimates that are proposed for authorization for each species for the Lubec Harbor Project can be found below in table 15.

TABLE 15—ESTIMATED TAKE BY LEVEL A AND LEVEL B HARASSMENT BY SPECIES [1]

Common name	Stock	Stock abundance	Level A	Level B	Total proposed take—U.S. waters authorized only	Proposed take percentage of stock in U.S. waters
Minke Whale	Canadian Eastern Coast	21,968	0	23 (56)	23 (56)	<1
Atlantic White-Sided Dolphin	Western North Atlantic	31,506	0	132 (334)	132 (334)	<1
Common Dolphin	Western North Atlantic	93,100	0	46 (117)	46 (117)	<1
Harbor Porpoise	Gulf of Maine/Bay of Fundy	85,765	2,236 (2,285)	5,473 (17,580)	7,709 (19,865)	9
Harbor Seal	Western North Atlantic	61,336	81	220 (467)	301 (548)	<1
Gray Seal	Western North Atlantic	394,311	40	92 (228)	132 (268)	<1

[1] The parenthetical number represents the total number of takes including those estimated to occur in Canadian waters.

Proposed Mitigation

In order to issue an IHA under section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to the activity, and other means of effecting the least practicable impact on the species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stock for taking for certain subsistence uses (latter not applicable for this action). NMFS regulations require applicants for incidental take authorizations to include information about the availability and feasibility (economic and technological) of equipment, methods, and manner of conducting the activity or other means of effecting the least practicable adverse impact upon the affected species or stocks, and their habitat (50 CFR 216.104(a)(11)).

In evaluating how mitigation may or may not be appropriate to ensure the least practicable adverse impact on species or stocks and their habitat, as well as subsistence uses where applicable, NMFS considers two primary factors:

(1) The manner in which, and the degree to which, the successful implementation of the measure(s) is expected to reduce impacts to marine mammals, marine mammal species or stocks, and their habitat. This considers the nature of the potential adverse impact being mitigated (likelihood, scope, range). It further considers the likelihood that the measure will be effective if implemented (probability of accomplishing the mitigating result if implemented as planned), the likelihood of effective implementation (probability implemented as planned), and;

(2) The practicability of the measures for applicant implementation, which may consider such things as cost, and impact on operations.

Mitigation for Marine Mammals and Their Habitat

Implementation of Shutdown Zones—For all pile driving/removal activities, ME DOT would implement shutdowns within designated zones. The purpose of a shutdown zone is generally to define an area within which shutdown of activity would occur upon sighting of a marine mammal (or in anticipation of an animal entering the defined area). Implementation of shutdowns would be used to avoid or minimize incidental Level A harassment takes from vibratory, impact pile driving and removal, and DTH drilling (table 16). For all vibratory pile driving/removal activities, a minimum 10-m shutdown zone would be established for marine mammals as outlined in ME DOT's IHA application. Shutdown zones for impact pile driving and DTH drilling are based on the Level A harassment zones and monitoring feasibility and therefore vary by marine mammal hearing group (table 16). The shutdown zones for DTH drilling for low frequency and high frequency cetaceans were rounded up from the estimated Level A harassment zone for each particular activity. The largest Level A harassment zone for low frequency cetaceans from DTH is 1,244 m, and a shutdown zone of 1,245 m is proposed, given the expected ability to detect those species at that distance. The largest Level A harassment zone from DTH for high frequency cetaceans is 159 m, and a shutdown zone of 160 m is proposed, given the expected ability to detect those species at that distance. The same methodology was used for impact pile driving for low frequency and high frequency cetaceans. The largest Level A harassment zone for low frequency cetaceans is 821 m, so a shutdown zone of 825 m is proposed, given the expected ability to detect those species at that distance. The largest Level A harassment zone for high frequency cetaceans for impact pile driving is 105 m, so a shutdown zone of 105 m is proposed, given the expected ability to detect those species at that distance. The Level A harassment zones for DTH drilling and impact pile driving for very high frequency cetaceans and phocids are considered too large to effectively monitor (Table 7). Therefor a shutdown zone of 500m is proposed, as we consider that distance to be the largest reasonable zone a PSO can monitor for more cryptic species like harbor porpoises and seals in this circumstance. The placement of PSOs during all pile driving activities (described in detail in the Monitoring and Reporting section) would ensure the full extent of shutdown zones are visible to PSOs.

TABLE 16—PROPOSED SHUTDOWN AND CLEARANCE ZONES (m) FOR EACH PROJECT COMPONENT

Project component	Pile installation activity	Bubble curtain used	Shutdown & clearance distances			
			LF cetaceans	HF cetaceans	VHF cetaceans	PW pinnipeds
PSP	DTH Drilling	Yes	1,245	160	[1] 500	[1] 500
Floating Docks.						
Falsework Platform	Vibratory Setting & Removal	No	10	10	10	10
	Impact Hammer	No	825	105	[1] 500	[1] 500

Note: Mitigation ranges were selected based on the acoustic isopleth results, plus an added buffer of rounding up to the nearest 5 m for PSO clarity.

[1] It is NMFS' recommendation for this Project that a 500-m maximum shutdown and clearance zone be assumed for VHF cetaceans and pinnipeds for monitoring feasibility.

Monitoring for Level A and Level B harassment—ME DOT has identified monitoring zones correlated with the Level B harassment zones. Monitoring zones provide utility for observing by establishing monitoring protocols for areas adjacent to the shutdown zones. Monitoring zones enable observers to be aware of and communicate the presence of marine mammals in the project area outside the shutdown zone and thus prepare for a potential cessation of activity should the animal enter the shutdown zone. PSOs would monitor the entire visible area to maintain the best sense of where animals are moving relative to the zone boundaries defined in table 16. A minimum of two PSOs will be required to be on duty at all times during pile activity. ME DOT will send a Marine Mammal Monitoring Plan 90 days prior to the project's starting date with specific PSO locations.

Bubble Curtain—A bubble curtain would be used for all DTH drilling activities for construction of the PSP and floating dock. Bubble curtains are not proposed for installation or removal of the piles for the falsework platform. Bubble curtains will be used to achieve a broadband noise attenuation which will effectively minimize the extent of the SELcum isopleths and reduce the sizes of the overall ZOIs. It is anticipated that a 5-dB broadband attenuation level will consistently be achieved; therefore, all exposure estimates and the resulting take request account for all stages of structural pile installation activities associated with this project and are based on 5 dB attenuation (not including falsework pile installation and removal). The bubble curtain must distribute air bubbles around 100 percent of the piling circumference for the full depth of the water column. The lowest bubble ring must be in contact with the substrate for the full circumference of the ring, and the weights attached to the bottom ring shall ensure 100 percent substrate contact. No parts of the ring or other objects shall prevent full substrate contact. Air flow to the bubblers must be balanced around the circumference of the pile.

Pre-Activity Monitoring—Prior to the start of daily in-water construction activity, or whenever a break in pile driving/removal of 30 minutes or longer occurs, PSOs would observe the shutdown and monitoring zones for a period of 30 minutes. The shutdown zone would be considered cleared when a marine mammal has not been observed within the zone for that 30-minute period. If a marine mammal is observed within the shutdown zone, a soft-start cannot proceed until the animal has left the zone or has not been observed for 15 minutes. If the monitoring zone has been observed for 30 minutes and marine mammals are not present within the zone, soft-start procedures can commence and work can continue. Pre-start clearance monitoring must be conducted during periods of visibility sufficient for the lead PSO to determine that the shutdown zones, indicated in table 16, are clear of marine mammals. When a marine mammal for which take by Level B harassment is authorized is present in the Level B harassment zone, activities may begin. If work ceases for more than 30 minutes, the pre-activity monitoring of both the monitoring zone and shutdown zone would commence.

Soft Start—The use of a soft start procedure is believed to provide additional protection to marine mammals by warning marine mammals or providing them with a chance to leave the area prior to the hammer operating at full capacity. ME DOT will utilize soft start techniques for impact pile driving. We require an initial set of three strikes from the impact hammer at reduced energy, followed by a 30-second waiting period, then two subsequent three-strike sets. Soft start will be required at the beginning of each day's impact pile driving work and at any time following a cessation of impact pile driving of 30 minutes or longer; the requirement to implement soft start for impact driving is independent of whether vibratory driving has occurred within the prior 30 minutes. Soft start is not required during vibratory pile driving activities.

Based on our evaluation of the applicant's proposed measures, NMFS has preliminarily determined that the proposed mitigation measures provide the means of effecting the least practicable impact on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

Proposed Monitoring and Reporting

In order to issue an IHA for an activity, section 101(a)(5)(D) of the MMPA states that NMFS must set forth requirements pertaining to the monitoring and reporting of such taking. The MMPA implementing regulations at 50 CFR 216.104(a)(13) indicate that requests for authorizations must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present while conducting the activities. Effective reporting is critical both to compliance as well as ensuring that the most value is obtained from the required monitoring.

Monitoring and reporting requirements prescribed by NMFS should contribute to improved understanding of one or more of the following:

- Occurrence of marine mammal species or stocks in the area in which take is anticipated (*e.g.,* presence, abundance, distribution, density);
- Nature, scope, or context of likely marine mammal exposure to potential stressors/impacts (individual or cumulative, acute or chronic), through better understanding of: (1) action or environment (*e.g.,* source characterization, propagation, ambient noise); (2) affected species (*e.g.,* life history, dive patterns); (3) co-occurrence of marine mammal species with the activity; or (4) biological or behavioral context of exposure (*e.g.,* age, calving or feeding areas);
- Individual marine mammal responses (behavioral or physiological) to acoustic stressors (acute, chronic, or cumulative), other stressors, or cumulative impacts from multiple stressors;
- How anticipated responses to stressors impact either: (1) long-term fitness and survival of individual marine mammals; or (2) populations, species, or stocks;
- Effects on marine mammal habitat (*e.g.,* marine mammal prey species, acoustic habitat, or other important physical components of marine mammal habitat); and,
- Mitigation and monitoring effectiveness.

Visual Monitoring—Marine mammal monitoring during pile driving activities would be conducted by PSOs meeting NMFS' standards and in a manner consistent with the following:

- PSOs must be independent of the activity contractor (for example, employed by a subcontractor) and have no other assigned tasks during monitoring periods;
- At least one PSO would have prior experience performing the duties of a PSO during construction activity

pursuant to a NMFS-issued incidental take authorization;

- Other PSOs may substitute education (degree in biological science or related field) or training for experience; and
- Where a team of three or more PSOs is required, a lead observer or monitoring coordinator would be designated. The lead observer would be required to have prior experience working as a marine mammal observer during construction.
- PSOs must be approved by NMFS prior to beginning any activities subject to this IHA.

PSOs should have the following additional qualifications:

- Ability to conduct field observations and collect data according to assigned protocols;
- Experience or training in the field identification of marine mammals, including the identification of behaviors;
- Sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations;
- Writing skills sufficient to prepare a report of observations including but not limited to the number and species of marine mammals observed; dates and times when in-water construction activities were conducted; dates, times, and reason for implementation of mitigation (or why mitigation was not implemented when required); and marine mammal behavior; and
- Ability to communicate orally, by radio or in person, with project personnel to provide real-time information on marine mammals observed in the area as necessary.

Monitoring would be conducted 30 minutes before, during, and 30 minutes after pile driving/removal activities. In addition, observers shall record all incidents of marine mammal occurrence, regardless of distance from activity, and shall document any behavioral reactions in concert with distance from piles being driven or removed. Pile driving/removal activities include the time to install or remove a single pile or series of piles, as long as the time elapsed between uses of the pile driving equipment is no more than 30 minutes.

A minimum of two PSO would be on duty during all in-water construction activities. Locations from which PSOs would be able to monitor from will be determined by ME DOT 90 days prior to the start of construction in their NMFS-approved Marine Mammal Monitoring Plan.

PSOs would scan the waters using binoculars or spotting scopes and would use a handheld range-finder device to verify the distance to each sighting from the project site. PSOs would be placed at the best vantage point(s) practicable to monitor for marine mammals and implement shutdown/delay procedures when applicable by calling for the shutdown to the hammer operator via a radio.

Reporting—A draft marine mammal monitoring report would be submitted to NMFS within 90 days after the completion of pile driving and removal activities. It would include an overall description of work completed, a narrative regarding marine mammal sightings, and associated PSO data sheets. Specifically, the report must include:

- Dates and times (begin and end) of all marine mammal monitoring.
- Construction activities occurring during each daily observation period, including the number and type of piles driven or removed and by what method (*i.e.,* impact driving) and for each pile or total number of strikes for each pile (impact driving).
- PSO locations during marine mammal monitoring.
- Environmental conditions during monitoring periods (at beginning and end of PSO shift and whenever conditions change significantly), including Beaufort sea state and any other relevant weather conditions including cloud cover, fog, sun glare, and overall visibility to the horizon, and estimated observable distance;
- Upon observation of a marine mammal, the following information: Name of PSO who sighted the animal(s) and PSO location and activity at time of sighting; time of sighting; identification of the animal(s) (*e.g.,* genus/species, lowest possible taxonomic level, or unidentified), PSO confidence in identification, and the composition of the group if there is a mix of species; distance and bearing of each marine mammal observed relative to the pile being driven for each sighting (if pile driving was occurring at time of sighting); estimated number of animals (min/max/best estimate); estimated number of animals by cohort (adults, juveniles, neonates, group composition, *etc.*); animal's closest point of approach and estimated time spent within the harassment zone; description of any marine mammal behavioral observations (*e.g.,* observed behaviors such as feeding or traveling), including an assessment of behavioral responses thought to have resulted from the activity (*e.g.,* no response or changes in behavioral state such as ceasing feeding, changing direction, flushing, or breaching);
- Number of marine mammals detected within the harassment zones, by species; and,
- Detailed information about any implementation of any mitigation triggered (*e.g.,* shutdowns and delays), a description of specific actions that ensued, and resulting changes in behavior of the animal(s), if any.

If no comments are received from NMFS within 30 days, the draft final report would constitute the final report. If comments are received, a final report addressing NMFS comments must be submitted within 30 days after receipt of comments.

Reporting Dead or Injured Marine Mammals—In the event that personnel involved in the construction activities discover an injured or dead marine mammal, the Holder must report the incident to the Office of Protected Resources (OPR), NMFS (*PR.ITP.MonitoringReports@noaa.gov* and *itp.owens@noaa.gov*), and to the Greater Atlantic Marine Mammal Stranding Network as soon as feasible. If the death or injury was clearly caused by the specified activity, the Holder must immediately cease the activities until NMFS OPR is able to review the circumstances of the incident and determine what, if any, additional measures are appropriate to ensure compliance with the terms of this IHA. The Holder must not resume their activities until notified by NMFS. The report must include the following information:

- Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);
- Species identification (if known) or description of the animal(s) involved;
- Condition of the animal(s) (including carcass condition if the animal is dead);
- Observed behaviors of the animal(s), if alive;
- If available, photographs or video footage of the animal(s); and
- General circumstances under which the animal was discovered.

Negligible Impact Analysis and Determination

NMFS has defined negligible impact as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival (50 CFR 216.103). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (*i.e.,* population-level effects). An estimate of the number

of takes alone is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be ''taken'' through harassment, NMFS considers other factors, such as the likely nature of any impacts or responses (*e.g.,* intensity, duration), the context of any impacts or responses (*e.g.,* critical reproductive time or location, foraging impacts affecting energetics), as well as effects on habitat, and the likely effectiveness of the mitigation. We also assess the number, intensity, and context of estimated takes by evaluating this information relative to population status. Consistent with the 1989 preamble for NMFS' implementing regulations (54 FR 40338, September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into this analysis via their impacts on the baseline (*e.g.,* as reflected in the regulatory status of the species, population size and growth rate where known, ongoing sources of human-caused mortality, or ambient noise levels).

To avoid repetition, the majority of our analysis applies to all the species listed in table 2, given that many of the anticipated effects of this project on different marine mammal stocks are expected to be relatively similar in nature. Where there are meaningful differences between species or stocks, or groups of species, in anticipated individual responses to activities, impact of expected take on the population due to differences in population status, or impacts on habitat, they are described independently in the analysis below.

Pile driving, removal, and DTH drilling activities associated with the project as outlined previously, have the potential to disturb or displace marine mammals. Specifically, the specified activities may result in take, in the form of Level A harassment and Level B harassment from underwater sounds generated from pile driving, removal, and DTH drilling. Potential takes could occur if individuals of these species are present in zones ensonified above the thresholds for Level A or Level B harassment identified above when these activities are underway.

Take by Level A and Level B harassment would be due to potential behavioral disturbance, TTS, and PTS. No serious injury or mortality is anticipated or proposed for authorization given the nature of the activity and measures designed to minimize the possibility of injury to marine mammals. Take by Level A harassment is only anticipated for harbor porpoises, harbor seals, and gray seals. The potential for harassment is minimized through the construction method (*i.e.,* vibratory methods to the extent practical) and the implementation of the proposed mitigation measures (see Proposed Mitigation section).

Behavioral responses of marine mammals to pile driving, removal, and drilling at the project site, if any, are expected to be mild and temporary. Marine mammals within the Level B harassment zone may not show any visual cues that they are disturbed by activities or could become alert, avoid the area, leave the area, or display other mild responses that are not observable such as changes in vocalization patterns. However, given the project schedule and appropriate mitigation, any harassment would be temporary.

In addition to the expected effects resulting from Level B harassment, we anticipate that harbor porpoises, harbor seals, and gray seals may sustain some limited Level A harassment in the form of PTS. However, any PTS is expected to be of a small degree (*i.e.,* minor degradation of hearing capabilities within regions of hearing that align most completely with the energy produced by pile driving (below 2 kHz)) because animals would need to be exposed to higher levels and/or longer duration than are expected to occur here in order to incur any more than a small degree of PTS. If hearing impairment occurs, it is most likely that the affected animal would lose a few decibels in its hearing sensitivity, which in most cases is not likely to meaningfully affect its ability to forage and communicate with conspecifics, as it would be minor and not in the region of greatest hearing sensitivity.

Additionally, and as noted previously, some subset of the individuals that are behaviorally harassed could also simultaneously incur some small degree of TTS for a short duration of time. Because of the small degree anticipated, though, any PTS or TTS potentially incurred here would not be expected to adversely impact individual fitness, let alone annual rates of recruitment or survival.

The pile driving activities are also not expected to have significant adverse effects on these affected marine mammals' habitats. The activities may cause some fish to leave the area of disturbance, thus temporarily impacting marine mammals' foraging opportunities in a limited portion of the foraging range; but, because of the short duration of the activities and the relatively small area of the habitat that may be affected (with no known particular importance to marine mammals), the impacts to marine mammal habitat are not expected to cause significant or long-term negative consequences.

In combination, we believe that these factors, as well as the available body of evidence from other similar activities, demonstrate that the specified activities will have only minor, short-term effects on individuals that will not have any bearing on those individuals' fitness. Thus the specified activities are not expected to impact rates of recruitment or survival and will therefore have a negligible impact on those species or stocks.

As described above, we propose to authorize only the takes estimated to occur in United States waters (table 15); however, for the purposes of our negligible impact analysis and determination, we consider the total number of takes that are anticipated to occur as a result of the entire project (including the portion of the Level B harassment zone that extends into Canadian waters) (table 17).

In summary and as described above, the following factors primarily support our preliminary determination that the impacts resulting from this activity are not expected to adversely affect any of the species or stocks through effects on annual rates of recruitment or survival:

- No serious injury or mortality is anticipated or authorized;
- The anticipated incidents of Level B harassment consist of, at worst, temporary modifications in behavior;
- The potential impacts of Level A harassment on harbor porpoises, harbor seals, and gray seals are not anticipated to increase individual impacts to a point where any population-level impacts might be expected;
- The absence of any significant habitat within the industrialized project areas, including known areas or features of special significance for foraging or reproduction; and
- The presumed efficacy of the proposed mitigation measures in reducing the effects of the specified activity to the level of least practicable adverse impact.
- Effects on species that serve as prey for marine mammals from the activities are expected to be short-term and, therefore, any associated impacts on marine mammal feeding are not expected to result in significant or long-term consequences for individuals, or to accrue to adverse impacts on their populations from either project;
- The ensonified areas from the project are very small relative to the overall habitat ranges of all species and

stocks, and will not cause more than minor impacts

• There are no ESA-designated critical habitat, Biologically Important Areas, or any other areas of known biological importance near the project site.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the proposed monitoring and mitigation measures, NMFS preliminarily finds that the total marine mammal take from the proposed activity will have a negligible impact on all affected marine mammal species or stocks.

Small Numbers

As noted previously, only take of small numbers of marine mammals may be authorized under sections 101(a)(5)(A) and (D) of the MMPA for specified activities other than military readiness activities. The MMPA does not define small numbers and so, in practice, where estimated numbers are available, NMFS compares the number of individuals taken to the most appropriate estimation of abundance of the relevant species or stock in our determination of whether an authorization is limited to small numbers of marine mammals. When the predicted number of individuals to be taken is less than one-third of the species or stock abundance, the take is considered to be of small numbers. Additionally, other qualitative factors may be considered in the analysis, such as the temporal or spatial scale of the activities.

TABLE 17—TOTAL ESTIMATED TAKE INCLUDING CANADIAN TERRITORIAL WATERS

Common name	Stock	Stock abundance	Level A	Level B	Total take	Proposed take percentage of stock
Minke Whale	Canadian Eastern Coast	21,968	0	56	56	<1
Atlantic-White Sided Dolphin.	Western North Atlantic	31,506	0	334	334	1
Common Dolphin	Western North Atlantic	93,100	0	117	117	<1
Harbor Porpoise	Gulf of Maine/Bay of Fundy	85,765	2,285	17,580	19,865	23.2
Harbor Seal	Western North Atlantic	61,336	81	467	548	<1
Gray Seal	Western North Atlantic	394,311	40	228	268	<1

Table 17 demonstrates the number of animals that NMFS anticipates could be taken by Level A and Level B harassment for the proposed work. Our analysis shows that at most 23.2 percent of each affected stock could be taken by harassment. The numbers of animals proposed to be taken for these stocks would be considered small relative to the relevant stock's abundances, even if each estimated taking occurred to a new individual, which is an unlikely scenario.

Based on the analysis contained herein of the proposed activity (including the proposed mitigation and monitoring measures) and the anticipated take of marine mammals, NMFS preliminarily finds that small numbers of marine mammals would be taken relative to the population size of the affected species or stocks.

Unmitigable Adverse Impact Analysis and Determination

There are no relevant subsistence uses of the affected marine mammal stocks or species implicated by this action. Therefore, NMFS has determined that the total taking of affected species or stocks would not have an unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

Endangered Species Act

Section 7(a)(2) of the ESA of 1973 (16 U.S.C. 1531 *et seq.*) requires that each Federal agency insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat. To ensure ESA compliance for the issuance of IHAs, NMFS consults internally whenever we propose to authorize take for endangered or threatened species.

No incidental take of ESA-listed species is proposed for authorization or expected to result from this activity. Therefore, NMFS has determined that formal consultation under section 7 of the ESA is not required for this action.

Proposed Authorization

As a result of these preliminary determinations, NMFS proposes to issue an IHA to ME DOT for conducting the Lubec Safe Harbor Project in Lubec, Maine from March 25, 2025 through March 24, 2026, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated. A draft of the proposed IHA can be found at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-activities.*

Request for Public Comments

We request comment on our analyses, the proposed authorization, and any other aspect of this notice of proposed IHA for the proposed Lubec Safe Harbor Project. We also request comment on the potential renewal of this proposed IHA as described in the paragraph below. Please include with your comments any supporting data or literature citations to help inform decisions on the request for this IHA or a subsequent renewal IHA.

On a case-by-case basis, NMFS may issue a one-time, 1-year renewal IHA following notice to the public providing an additional 15 days for public comments when (1) up to another year of identical or nearly identical activities as described in the Description of Proposed Activity section of this notice is planned or (2) the activities as described in the Description of Proposed Activity section of this notice would not be completed by the time the IHA expires and a renewal would allow for completion of the activities beyond that described in the *Dates and Duration* section of this notice, provided all of the following conditions are met:

• A request for renewal is received no later than 60 days prior to the needed renewal IHA effective date (recognizing that the renewal IHA expiration date cannot extend beyond 1 year from expiration of the initial IHA).

• The request for renewal must include the following:

(1) An explanation that the activities to be conducted under the requested renewal IHA are identical to the activities analyzed under the initial IHA, are a subset of the activities, or include changes so minor (*e.g.,* reduction in pile size) that the changes do not affect the previous analyses,

mitigation and monitoring requirements, or take estimates (with the exception of reducing the type or amount of take).

(2) A preliminary monitoring report showing the results of the required monitoring to date and an explanation showing that the monitoring results do not indicate impacts of a scale or nature not previously analyzed or authorized.

• Upon review of the request for renewal, the status of the affected species or stocks, and any other pertinent information, NMFS determines that there are no more than minor changes in the activities, the mitigation and monitoring measures will remain the same and appropriate, and the findings in the initial IHA remain valid.

Dated: February 28, 2025.

Kimberly Damon-Randall,

Director, Office of Protected Resources, National Marine Fisheries Service.

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XE543]

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Small Boat Harbor Preconstruction Activities (Geotechnical Surveys) in St. George, Alaska

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; proposed incidental harassment authorization; request for comments on proposed authorization and possible renewal.

SUMMARY: NMFS has received a request from the United States Army Corps of Engineers (USACE) for authorization to take marine mammals incidental to geotechnical drilling in St. George, Alaska. Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to issue an incidental harassment authorization (IHA) to incidentally take marine mammals during the specified activities. NMFS is also requesting comments on a possible one-time, 1-year renewal that could be issued under certain circumstances and if all requirements are met, as described in Request for Public Comments at the end of this notice. NMFS will consider public comments prior to making any final decision on the issuance of the requested MMPA authorization and agency responses will be summarized in the final notice of our decision.

DATES: Comments and information must be received no later than April 4, 2025.

ADDRESSES: Comments should be addressed to Jolie Harrison, Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service and should be submitted via email to *ITP.Fleming@noaa.gov.* Electronic copies of the application and supporting documents, as well as a list of the references cited in this document, may be obtained online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-activities.* In case of problems accessing these documents, please call the contact listed below.

Instructions: NMFS is not responsible for comments sent by any other method, to any other address or individual, or received after the end of the comment period. Comments, including all attachments, must not exceed a 25-megabyte file size. All comments received are a part of the public record and will generally be posted online at *https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act* without change. All personal identifying information (*e.g.,* name, address) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information.

FOR FURTHER INFORMATION CONTACT: Kate Fleming, Office of Protected Resources, NMFS, (301) 427–8401.

SUPPLEMENTARY INFORMATION:

Background

The MMPA prohibits the ''take'' of marine mammals, with certain exceptions. Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (as delegated to NMFS) to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are proposed or, if the taking is limited to harassment, a notice of a proposed IHA is provided to the public for review.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for taking for subsistence uses (where relevant). Further, NMFS must prescribe the permissible methods of taking and other ''means of effecting the least practicable adverse impact'' on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stocks for taking for certain subsistence uses (referred to in shorthand as ''mitigation''); and requirements pertaining to the monitoring and reporting of the takings. The definitions of all applicable MMPA statutory terms used above are included in the relevant sections below and can be found in section 3 of the MMPA (16 U.S.C. 1362) and NMFS regulations at 50 CFR 216.103.

National Environmental Policy Act

To comply with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*) and NOAA Administrative Order (NAO) 216–6A, NMFS must review our proposed action (*i.e.,* the issuance of an IHA) with respect to potential impacts on the human environment.

This action is consistent with categories of activities identified in Categorical Exclusion B4 (IHAs with no anticipated serious injury or mortality) of the Companion Manual for NAO 216–6A, which do not individually or cumulatively have the potential for significant impacts on the quality of the human environment and for which we have not identified any extraordinary circumstances that would preclude this categorical exclusion. Accordingly, NMFS has preliminarily determined that the issuance of the proposed IHA qualifies to be categorically excluded from further NEPA review.

Summary of Request

On October 30, 2024, NMFS received a request from USACE for an IHA to take marine mammals incidental to geotechnical surveys to be conducted as part of preconstruction activities associated with a new small boat harbor in St. George, Alaska. Following NMFS' review of the application, and discussions between NMFS and USACE, the application was deemed adequate and complete on January 29, 2025. The USACE submitted a final revised version on February 19, 2025. The USACE's request is for take of northern fur seal, by Level A and Level B harassment and, of harbor seal, by Level B harassment only. Neither USACE nor NMFS expect serious injury or mortality