



## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

[RTID 0648-XD550]

#### **Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Columbia Gulf East Lateral XPRESS Project**

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

**ACTION:** Notice; issuance of an incidental harassment authorization.

**SUMMARY:** Pursuant to the regulations implementing the Marine Mammal Protection Act (MMPA) as amended, notification is hereby given that NMFS has issued an incidental harassment authorization (IHA) to Columbia Gulf, LLC (Columbia Gulf) to incidentally harass, by Level B harassment only, marine mammals during pile driving activities associated with the East Lateral XPRESS construction project (the Project) in Barataria Bay, Louisiana. There are no changes from the proposed authorization in this final authorization.

**DATES:** This authorization is effective from December 1, 2023, to November 30, 2024.

**ADDRESSES:** 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-other-energy-activities-renewable>*. In case of problems accessing these documents, please call the contact listed below.

**FOR FURTHER INFORMATION CONTACT:** Cara Hotchkin, 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 cited above are included in the relevant sections below.

### **Summary of Request**

On March 3, 2023, NMFS received a request from TC Energy/Columbia Gulf Transmission, LLC for an IHA to take marine mammals incidental to construction activities that include pile driving to install: (1) a point of delivery metering station (POD), and (2) a tie-in facility (TIF) in Baratavia Bay. The Project is intended to provide feed fuel for on-shore Liquefied Natural Gas (LNG) compressor stations. The application was deemed adequate and complete on June 5, 2023. Columbia Gulf’s request is for take

of bottlenose dolphin (*Tursiops truncatus*, Barataria Bay Estuarine System stock, BBES) by Level B harassment only. Neither Columbia Gulf nor NMFS expects serious injury or mortality to result from this activity and, therefore, an IHA is appropriate.

### Description of Specified Activity

#### Overview

Columbia Gulf proposes to construct two new compressor stations, a new meter station, approximately 8 miles (13 kilometers) of new 30-inch diameter natural gas pipeline lateral, two new mainline valves, a TIF, launcher and receiver facilities, and other auxiliary appurtenant facilities all located in St. Mary, Lafourche, Jefferson, and Plaquemines parishes, Louisiana. A summary of all construction activities necessary to complete all elements of the Project are shown in table 1.

**Table 1 — All Elements of the Project**

Bolded Elements Include In-Water Activities That May Result In The Take Of Marine Mammals

Facility	Parish	Pipeline Milepost Location	Description
<b>Pipeline Facilities</b>			
30-inch Pipeline Lateral	Jefferson	0.00 – 2.47	Install approximately 13.1 kilometers (8.14) miles of new 30-inch- diameter pipeline lateral.
	Plaquemines	2.47 – 8.14	
<b>Aboveground Facilities</b>			
Centerville Compressor Station	St. Mary	66.50 <sup>a</sup> , 66.70 <sup>b</sup> , 67.00 <sup>c</sup>	Construct a new gas-fired compressor station with a 23,470 hp compressor unit, which will interconnect with Columbia Gulf’s existing EL-100, EL-200, and EL-300 pipelines.
Golden Meadow Compressor Station	Lafourche	149.50 <sup>c</sup>	Construct a new gas-fired compressor station with a 23,470 hp compressor unit, which will interconnect with Columbia Gulf’s existing EL-300 pipeline.
Point of Delivery Meter Station	Plaquemines	8.14	Construct one POD meter station at the terminus of the new 30-inch pipeline lateral on an existing platform shared with Venture Global Gator Express, LLC. A 30-inch pig receiver will also be installed at the POD Meter Station.

Facility	Parish	Pipeline Milepost Location	Description
Tie-in Facility	Jefferson	0.00	Install a new TIF situated on a new platform at the intersection of the new 30-inch pipeline and Columbia Gulf's existing EL-300 pipeline. A 30-inch pig launcher will also be installed at the TIF.
Valves and Other Ancillary Facilities	Jefferson	0.00, 1.71 <sup>c</sup>	Install one new 30-inch mainline valve assembly on the new 30-inch pipeline lateral and one new 24- inch mainline valve assembly Columbia Gulf's existing EL-300 pipeline. Both mainline valve assemblies will be situated on the new TIF platform.
<sup>a</sup> Milepost is associated with Columbia Gulf's existing EL-100 pipeline. <sup>b</sup> Milepost is associated with Columbia Gulf's existing EL-200 pipeline. <sup>c</sup> Milepost is associated with Columbia Gulf's existing EL-300 pipeline.			

Construction of the Project will temporarily impact 2.79 acres, permanently alter 0.02 acres and include in-water activity that may result in take of marine mammals in Barataria Bay. Specifically, in order to provide fuel supply services to onshore LNG compressor stations, Columbia Gulf proposes pile driving to construct a new POD Meter Station on an existing platform and a new TIF at the terminus of a new 30-inch lateral pipeline. Project activities include installation, by impact hammer, of 20 18-inch concrete piles and 104 36-inch spun cast piles. The new POD Meter Station will include the installation of three 16-inch meter runs and related facilities. The new POD Meter Station will be constructed at the site of an existing platform, and construction will require the installation of four new 18-inch square concrete piles to protect a 30-inch- diameter riser. Pipelines will be installed by jetting and dredging with displaced sediment precipitating back to the substrate or being side-cast adjacent to the trench, respectively.

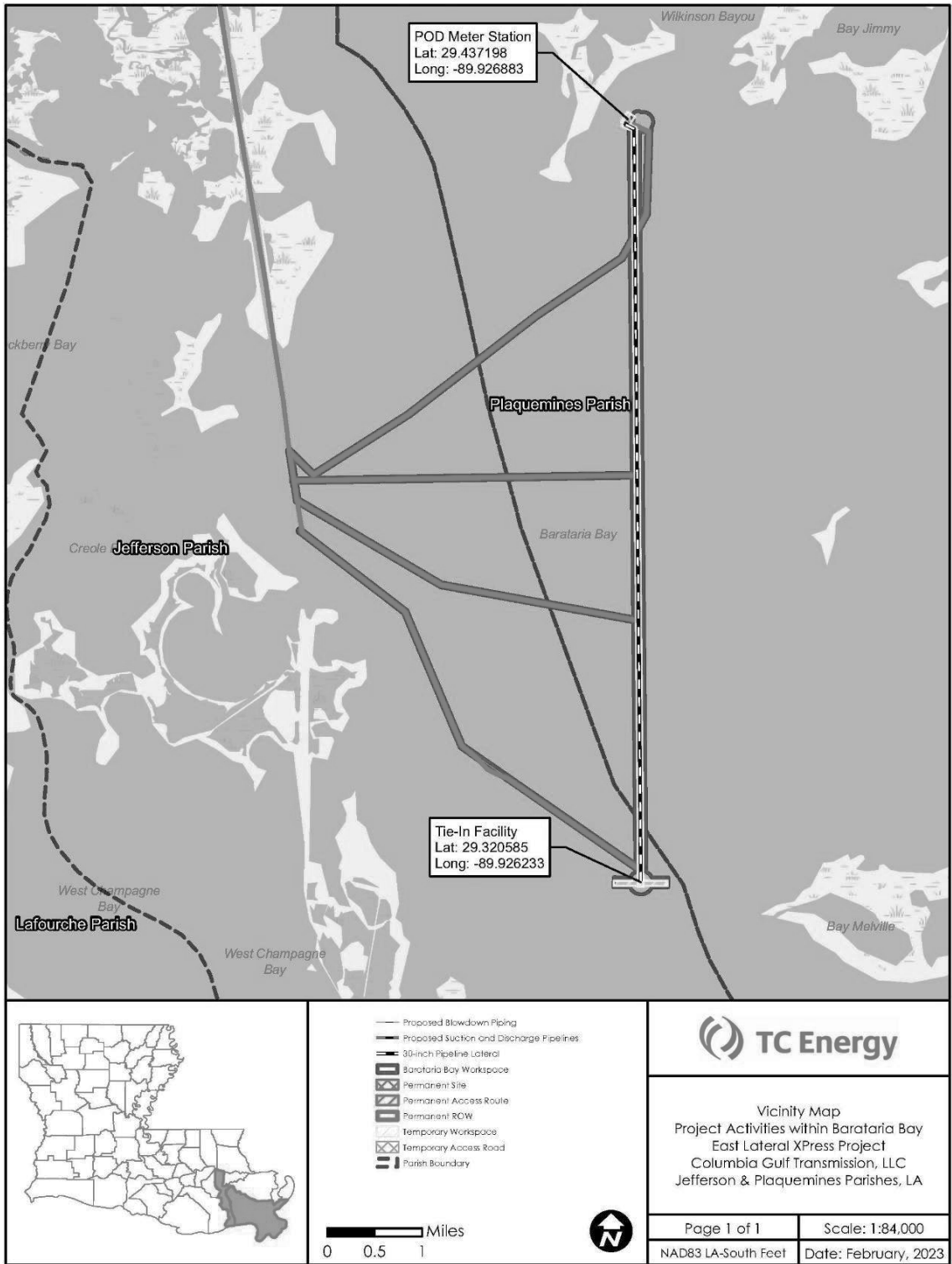
The new TIF will be situated on a new 180 foot (ft; 55 meter (m)) long by 80 ft (24.3 m) wide platform supported by 104 36-inch-diameter spun cast and 4 18-inch-diameter concrete piles. Two 24-inch-diameter and one 30-inch-diameter risers will be protected by 12 8-inch diameter concrete piles. The TIF will include a boat landing

measuring 10 ft (3 m) long by 10 ft (3 m) wide that will be used for maintenance and servicing of the platform.

#### *Dates and Duration*

Construction was planned to begin in January 2024 in order to meet a planned in-service date of April 2025. Pile driving within Barataria Bay will occur within a 3 month period within the 1-year effective dates of the IHA, from December 1, 2023, through November 30, 2024. Pile driving activity will be intermittent, conducted in accordance with project phasing requirements, and as such will not be continuous throughout the 3-month period. Pile driving activities will take place from 7 a.m. to 7 p.m. (adjusted as appropriate to conduct work during daylight hours), and may occur on any day of the week (five piles per day). In-water work is planned to occur on between 25 and 42 days. The pile specifications and method of installation are presented in table 2, below.

A detailed description of the Project is provided in the **Federal Register** notice for the proposed IHA (88 FR 61530, September 7, 2023). Since that time, no changes have been made to the pile driving activities described in the notice. Therefore, a detailed description is not provided here. Please refer to that **Federal Register** notice for the description of the specific activity.



**Figure 1 — Map of Project Area and Features**

**Table 2 — Pile Driving Activities**

Location	Number of Piles	Pile Diameter/type	Proxy Pile for Calculations	Impact Strikes per Pile	Piles per day	Strikes Per Day	Days of Installation
Tie-in Facility	104	36" Spun Cast Concrete Piles	36" Concrete (round, hollow)	4,800	5	24,000	24
Tie-in Facility	16	18" Concrete (round)					
Point of Delivery Platform	4	18" Concrete (square)					1
Total	120						25

### Comments and Responses

Notice of NMFS's proposal to issue an IHA to Columbia Gulf was published in the Federal Register on September 7, 2023 (88 FR 61530). That notice described, in detail, Columbia's activity, the marine mammal species that may be affected by the activity, and the anticipated effects on marine mammals. In that notice, we requested public input on the request for authorization described therein, our analyses, the proposed authorization, and any other aspect of the notice of proposed IHA, and requested that interested persons submit relevant information, suggestions, and comments.

During the 30-day public comment period, NMFS received one comment letters from the Sierra Club. The Sierra Club expressed submitted a public comment expressing its concerns, providing recommendations, and attaching a March 2022 letter sent to NMFS' Southeast Regional Field Office on projects located further north in Barataria Bay. The Sierra Club also submitted a short cover letter transmitting more than 700 signatures from individuals expressing general concern over the Columbia project's effect on the BBES stock of bottlenose dolphins and Barataria Bay as a whole. There were no other public comments submitted. A summary of the comments received from

the Sierra Club and NMFS' response are provided below. The comments are available online at: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-other-energy-activities-renewable>. Please see the comment submissions at the link provided in order to access the complete set of comments and the accompanying rationale.

*Comment:* In summary, the Sierra Club comments suggest that NMFS did not adequately consider the ongoing impacts to the Barataria Bay stock of bottlenose dolphins from the 2010 Deepwater Horizon (DWH) oil spill. Specifically, they asserted that, given the poor health of some of the individuals, some of the impacts we evaluated and predicted would be in the form of Level B harassment may actually manifest in the form of Level A harassment, and that a greater number of takes by Level B harassment may occur than are authorized or analyzed. They also suggest that NMFS should further consider the impact from this project in connection with impacts to the species from the numerous additional oil and gas infrastructure projects proposed in this area, and assess whether these projects will contribute to further impacts to this dolphin population.

*Response:* This short duration, low impact construction project includes 25 to 42 non-consecutive days of in-water work spread out across a 3-month period. We expect lower-level acoustic exposures from a dolphin swimming through the comparatively small ensonified zone on a day or two. The Level B harassment zone is about 430 m and the Level A harassment zone is just under 50 m, and there is a mandatory 50-m monitored shutdown zone that is expected to avoid Level A harassment. As a result, we are authorizing 42 takes by Level B harassment of Barataria Bay bottlenose dolphins. NMFS' Federal Register notice of proposed IHA did consider the impact the DWH spill has had on the BBES stock. Even so, the agency made a preliminary negligible impact determination due to the nature of the specified activity as a whole and the estimated takes. While it may be true that the effects of exposure to the elevated sound levels of the

pile driving might affect a dolphin in a more compromised condition (such as those that have been exposed to the DWH spill) in a slightly more severe way, the comments offer no information supporting the idea that Level A harassment (*i.e.*, injury) could result, nor that there might be more Level B harassment than estimated.

Given the small footprint of the activity, the small number of takes, and the very low likelihood that any individual dolphin will be taken on more than a few likely non-consecutive days, even given the potential more weakened state of any specific individual dolphin, there is no evidence that the activity will result in the Level A harassment of any individual, that the take by Level B harassment will be more numerous than authorized, or that the result of one animal incurring Level B harassment on 1 to a few days within 1 year from this activity will result in the scale of energetic impacts that could affect fitness, reproduction, or survival of any individual dolphins.

Regarding the suggestion that NMFS consider the impacts of this project in conjunction with the impacts of numerous other oil and gas infrastructure projects in the area, section 101(a)(5)(D) of the MMPA specifies NMFS consider the impacts of the “specified activity” in making a negligible impact determination. The impacts of other activities are considered in the baseline of the analysis, as described in the notice for the proposed IHA. Specific to the two projects referenced in the Sierra Club letter, Venture Global’s “Gator Express” and “Plaquemines,” construction on the latter project is not anticipated in the near future, and the Gator Express in-water work in Barataria Bay consists primarily of installation of small (12-in) piles, the impacts of which are expected to be minor avoidance of a comparatively small impact area and not reasonably anticipated to change the baseline for Barataria Bay bottlenose dolphins. Further, while other projects that are not the subject of this IHA may have impacts on the Barataria Bay bottlenose dolphin population, the limited impacts authorized by this IHA will not significantly, incrementally increase the scale or severity of impacts, either alone or in

combination, as determined in the analyses supporting NMFS' National Environmental Policy Act determination that a Categorical Exclusion is appropriate for this IHA.

### **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 BBES bottlenose dolphins. NMFS fully considered all of this information, including relevant citations which may be included here, and we refer the reader to these materials instead of reprinting the information. Additional information regarding population estimates and potential threats for BBES bottlenose dolphins, can be found in NMFS' Stock Assessment Reports (SARs) at: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments> and more information about this species in general (*e.g.*, physical and behavioral descriptions) may be found on NMFS' website (<https://www.fisheries.noaa.gov/find-species>).

Take of BBES bottlenose dolphins may occur incidental to the specified activities described in the request for authorization. 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 is provided in table 3. 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 authorized here, PBR and annual serious injury and mortality from anthropogenic sources are included here as gross indicators of the status of the species or stocks and other threats.

**Table 3 — Marine Mammal Species Likely Impacted by the Specified Activities**<sup>1</sup>

Common name	Scientific name	Stock	ESA/MM PA status; Strategic (Y/N) <sup>2</sup>	Stock abundance (CV, N <sub>min</sub> , most recent abundance survey) <sup>3</sup>	PBR	Annual M/SI <sup>4</sup>
<i>Family Delphinidae</i>						
Bottlenose dolphin	<i>Tursiops truncatus</i>	Barataria Bay Estuarine Stock	-/-; Y	2,071 (0.06, 1,971, 2019)	18	160

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/>; Committee on Taxonomy (2022)).

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<sub>min</sub> 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, vessel strike). Annual M/SI 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.

### *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.*). Note that no direct measurements of hearing ability

have been successfully completed for mysticetes (*i.e.*, low-frequency cetaceans). Subsequently, NMFS (2018) described generalized hearing ranges for these marine mammal hearing groups. Generalized hearing ranges were chosen based on the approximately 65 decibel (dB) threshold from the normalized composite audiograms, with the exception for lower limits for low-frequency cetaceans where the lower bound was deemed to be biologically implausible and the lower bound from Southall *et al.* (2007) retained. Marine mammal hearing groups and their associated hearing ranges are provided in table 4.

**Table 4 — Marine Mammal Hearing Groups [NMFS, 2018]**

Hearing group	Generalized hearing range *
Low-frequency (LF) cetaceans (baleen whales)	7 Hz to 35 kHz.
Mid-frequency (MF) cetaceans (dolphins, toothed whales, beaked whales, bottlenose whales)	150 Hz to 160 kHz.
High-frequency (HF) cetaceans (true porpoises, Kogia, river dolphins, Cephalorhynchid, Lagenorhynchus cruciger & L. australis)	275 Hz to 160 kHz.
Phocid pinnipeds (PW) (underwater) (true seals)	50 Hz to 86 kHz.
Otariid pinnipeds (OW) (underwater) (sea lions and fur seals)	60 Hz to 39 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 are typically not as broad. Generalized hearing range chosen based on ~65 dB threshold from normalized composite audiogram, with the exception for lower limits for LF cetaceans (Southall *et al.*, 2007) and PW pinniped (approximation).

The pinniped functional hearing group was modified from Southall *et al.* (2007) on the basis of data indicating that phocid species have consistently demonstrated an extended frequency range of hearing compared to otariids, especially in the higher frequency range (Hemilä *et al.*, 2006, Kastelein *et al.*, 2009, Reichmuth *et al.*, 2013).

For more detail concerning these groups and associated frequency ranges, please see NMFS (2018) for a review of available information.

### **Potential Effects of Specified Activities on Marine Mammals and Their Habitat**

The effects of underwater noise from pile driving for Columbia Gulf's activities have the potential to result in behavioral harassment of marine mammals in the vicinity of the Project area. The notice of proposed IHA (88 FR 61530, September 7, 2023) included a discussion on the effects of anthropogenic noise on marine mammals and the potential effects of underwater noise from Columbia Gulf's construction activities on marine mammals and their habitat. That information and analysis is referenced in this final IHA determination and is not repeated here; please refer to the notice of proposed IHA (88 FR 61530, September 7, 2023).

### **Estimated Take of Marine Mammals**

This section provides an estimate of the number of incidental takes authorized through this IHA, which informed both NMFS' consideration of "small numbers" and the negligible impact determinations.

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 are by Level B harassment only, in the form of disruption of behavioral patterns for individual marine mammals resulting from exposure to sound emanated from pile driving activity. Based on the nature of the activity and the anticipated effectiveness of the mitigation measures including the utilization of Protected

Species Observers to monitor for marine mammals and implementation of pre-clearance and soft start protocols discussed in detail below in the Mitigation section, Level A harassment is neither anticipated nor authorized. Specifically, in-water construction activities will be completed in less than 3 months (a total of 25 to 42 days) and are not expected to result in serious injury or mortality to marine mammals within Barataria Bay. Based on calculated threshold distances for mid-frequency cetaceans, an individual dolphin would need to remain within 43 meters of the piles being driven through the entire day of pile driving activity in order for injury from cumulative exposure to occur. Given the mobility of bottlenose dolphins and the expected avoidance behavior of the species when encountering noise disturbance (*i.e.*, pile driving), such a scenario is extremely unlikely to occur.

The method for calculating take by Level B Harassment was described in the Federal Register notice announcing the proposed IHA and remains unchanged. Accordingly, the amount of authorized take is also the same as that presented in the proposed IHA.

For acoustic impacts, generally speaking, we estimate take by considering: (1) acoustic thresholds above which NMFS believes the best available science indicates marine mammals will be behaviorally harassed or incur some degree of permanent hearing impairment for example, permanent threshold shift (or PTS); (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 authorized take estimates.

## *Acoustic Thresholds*

NMFS recommends the use of acoustic thresholds 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 PTS of some degree (equated to Level A harassment).

*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 microPascal (re 1  $\mu$ Pa)) for continuous (*e.g.*, vibratory pile driving, drilling) and above RMS SPL 160 dB re 1  $\mu$ Pa for non-explosive impulsive (*e.g.*, seismic airguns) or intermittent (*e.g.*, scientific sonar) sources. Generally speaking, Level B harassment estimates based on these behavioral harassment thresholds are expected to include any likely takes by Temporary Threshold Shift (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 that would not otherwise occur. Columbia Gulf's Request for Authorization includes actions known to generate impulsive sound (impact pile driving) that may cause incidental harassment, and therefore the RMS SPL threshold of 160 re 1  $\mu$ Pa is applicable.

*Level A harassment* — NMFS' Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0) (Technical Guidance, 2018) identifies dual criteria to assess auditory injury (Level A harassment) to five different marine mammal groups (based on hearing sensitivity) as a result of exposure to noise from two different types of sources (impulsive or non-impulsive). The specified activity planned by Columbia Gulf includes the use of an impulsive source type and is planned to occur in an area where BBES bottlenose dolphins, a mid-frequency cetacean, are found.

These thresholds are provided in the table below. The references, analysis, and methodology used in the development of the thresholds are described in NMFS' 2018 Technical Guidance, available at: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance>.

**Table 5 — Thresholds Identifying the Onset of Permanent Threshold Shift**

Hearing Group	PTS Onset Thresholds* (Received Level)	
	Impulsive	Non-impulsive
Low-Frequency (LF) Cetaceans	<i>Cell 1</i> $L_{p,0-pk,flat}$ : 219 dB $L_{E,p,LF,24h}$ : 183 dB	<i>Cell 2</i> $L_{E,p,LF,24h}$ : 199 dB
Mid-Frequency (MF) Cetaceans	<i>Cell 3</i> $L_{p,0-pk,flat}$ : 230 dB $L_{E,p,MF,24h}$ : 185 dB	<i>Cell 4</i> $L_{E,p,MF,24h}$ : 198 dB
High-Frequency (HF) Cetaceans	<i>Cell 5</i> $L_{p,0-pk,flat}$ : 202 dB $L_{E,p,HF,24h}$ : 155 dB	<i>Cell 6</i> $L_{E,p,HF,24h}$ : 173 dB
Phocid Pinnipeds (PW) (Underwater)	<i>Cell 7</i> $L_{p,0-pk,flat}$ : 218 dB $L_{E,p,PW,24h}$ : 185 dB	<i>Cell 8</i> $L_{E,p,PW,24h}$ : 201 dB

	PTS Onset Thresholds* (Received Level)	
Otariid Pinnipeds (OW) (Underwater)	<i>Cell 9</i> $L_{p,0-pk,flat}$ : 232 dB $L_{E,p,OW,24h}$ : 203 dB	<i>Cell 10</i> $L_{E,p,OW,24h}$ : 219 dB
<p>* Dual metric thresholds for impulsive sounds: Use whichever results in the largest isopleth for calculating PTS onset. If a non-impulsive sound has the potential of exceeding the peak sound pressure level thresholds associated with impulsive sounds, these thresholds are recommended for consideration.</p> <p>Note: Peak sound pressure level (<math>L_{p,0-pk}</math>) has a reference value of 1 <math>\mu</math>Pa, and weighted cumulative sound exposure level (<math>L_{E,p}</math>) has a reference value of 1 <math>\mu</math>Pa<sup>2</sup>s. In this Table, thresholds are abbreviated to be more reflective of International Organization for Standardization standards (ISO 2017). The subscript “flat” is being included to indicate peak sound pressure are flat weighted or unweighted within the generalized hearing range of marine mammals (<i>i.e.</i>, 7 Hz to 160 kHz). The subscript associated with cumulative sound exposure level thresholds indicates the designated marine mammal auditory weighting function (LF, MF, and HF cetaceans, and PW and OW pinnipeds) and that the recommended accumulation period is 24 hours. The weighted cumulative sound exposure level thresholds could be exceeded in a multitude of ways (<i>i.e.</i>, varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these thresholds will be exceeded.</p>		

### *Ensonified Area*

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

To calculate the ensonified area, Columbia Gulf used the NMFS User Spreadsheet and accompanying 2018 guidance. Columbia Gulf located data for impact installation of a 36 inch concrete pile (MacGillivray *et al.*, 2007), measured at 50 meters, to serve as a suitable proxy source level for the 104 36-inch spun-cast piles selected for the project (see table 6). The applicant then elected to apply the source levels for the 36-in proxy pile to all piles being driven, including the 20 18-inch piles, likely resulting in an overestimate of resulting noise from these smaller piles.

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:

$TL = B * \text{Log}_{10} (R1/R2)$ , where:

TL = Transmission loss in dB,

B = Transmission loss coefficient,

R1 = the distance of the modeled SPL from the driving pile, and

R2 = the distance from the driven pile of the initial measurement.

Absent site-specific acoustic monitoring with differing measured transmission loss, a practical spreading value of 15 is used as the transmission loss coefficient. Site-specific transmission loss data for the project area in Barataria Bay is not available; therefore, the default coefficient of 15 is used to determine the distances to the Level A harassment and Level B harassment thresholds. 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 and accompanying 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 the optional tool, we anticipate that the resulting isopleth estimates are typically overestimates of some degree, which may result in an overestimate of potential 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 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 PTS. Inputs used in the optional User Spreadsheet tool, and the resulting estimated isopleths, are reported in tables 6 and 7, below. The applicant applied a 15LogR propagation loss rate in the User Spreadsheet, and included a 5 dB attenuation factor for use of a bubble curtain which is consistent with NMFS recommendations.

**Table 6 — Proxy Pile Characteristics (User Spreadsheet Input)**

Pile Type	SLs			Measured Distance	Source
	dB Peak	dB rms	dB SEL		
36” concrete pile, Impact pile driven (5 dB attenuated)	186	174	160	50 m	MacGillivray <i>et al.</i> , 2007

To calculate the harassment zones, Columbia Gulf identified a representative location in the center of the TIF and second representative location in the center of the POD Meter Station and used these locations to calculate the harassment zones for each site. Given the close proximity of individual piles to one another, NMFS concurred with this approach. Columbia Gulf then accessed the User Spreadsheet to calculate the distance from each of the two representative pile driving locations to the furthest extent of Level A and Level B thresholds for mid-frequency cetaceans. In order to ensure conservative results, the source level data for 36 inch piles was used as a proxy for all pile driving activities, including installation of smaller diameter piles.

**Table 7 — Harassment Zone Isopleths Attributable to Pile Driving**

Activity	Distance from Representative Sound Source	
	PTS: Level A Harassment Zone (Mid - Frequency Cetaceans)	Behavioral Disturbance: Level B Harassment Zone (All Marine Mammals)
Impact pile driving in Barataria Bay <sup>a</sup>	43.2 m	428.9 m

<sup>a</sup> User Spreadsheet output based on installation by impact hammer of (proxy) 36-inch-diameter concrete piles, and use of bubble curtains (estimated 5 dB reduction, per consultations with NMFS) (MacGillivray *et al.*, 2007).

Based on the User Spreadsheet outputs reflected in table 7, the Level B harassment zone would have a radius of approximately 428.9 m (m; 1,407.0 ft) from the source pile, or an approximate area of 0.58 square kilometers (km<sup>2</sup>). The Level A zone would have a calculated radius of approximately 43.2 m (142.0 ft), or an approximate area of 0.006 km<sup>2</sup> (63,347 square feet (ft<sup>2</sup>

#### *Marine Mammal Occurrence*

In order to estimate the distribution and density of BBES dolphins that may occur in the area affected by the specified activity, we turned to prior area-specific surveys and studies conducted in the Bay.

Density estimates for Columbia Gulf's proposal reference the findings of the 2017 McDonald (*et al.*) study and an average of the calculated densities for each habitat region defined within the study area. Density estimates for bottlenose dolphins within Barataria Bay were derived from estimates calculated through vessel-based capture-mark-recapture photo-ID surveys conducted during ten survey sessions from June 2010 to May 2014 (McDonald *et al.*, 2017). Because the surveys were conducted during the DWH oil spill, the resulting density estimate does not account for mortality following the spill.

The study was conducted from June 2010 to May 2014 and utilized vessel-based capture-mark-recapture photo ID surveys. The study area for these surveys included Barataria Bay and Pass, Bayou Rigaud, Caminada Bay and Pass, Barataria Waterway, and Bay des Ilettes. Densities varied in different areas within broader Barataria Bay, and the study area was divided into three (East, West, and Island) habitat regions to capture these observed density variations. Results were parsed and densities were calculated for

each habitat region. Project activities may have some effect on both the East and West habitat regions, with estimated densities of 0.601 individuals per km<sup>2</sup> and 1.24 individuals per km<sup>2</sup>, respectively. Study results indicate density of 11.4 individuals per km<sup>2</sup> for the Island region. Given uncertainties regarding fidelity to and transiting among habitat regions, the average densities for each habitat region in the study area are then averaged together to create an estimated density for the project area. NMFS concurs with this approach. Inclusion of the higher estimated density from the Island habitat region results in a cumulative average higher than the estimated density for the East and West habitat regions alone, and reflects a conservative approach. Based on this calculation and using the best available information for estimating density given the project type and location, the average bottlenose dolphin density for the project is estimated to be 2.83 individuals per km<sup>2</sup>.

*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 authorized).

**Table 8 — Level B Harassment Takes Requested and Percentage of Stock Potentially Affected**

Pile Driving Location	Species	Estimated Density	Level B Harassment Area	Level B Takes Requested (individuals)	Stock Abundance (individuals)	Percentage (%) of Stock Potentially Affected by Level B Take
Tie-In Facility	Bottlenose Dolphin	2.83 individuals per km <sup>2</sup>	0.58 km <sup>2</sup>	40	2,071	1.93
POD Meter Station				2		0.10
Project Totals				42	--	2.03

Level B harassment take estimates for pile driving activities were calculated using the density estimate described above, averaging across the three areas in Barataria Bay. The Level B harassment zone is calculated using source level data for 36-inch concrete

piles (including use of bubble curtains) and assumes an even distribution of animals throughout the affected area. Initial Level B take estimates for TIF and POD Meter Station pile driving activity were calculated using the area of the Level B harassment zone (0.58 km<sup>2</sup>) multiplied by the calculated density (2.83 individuals per km<sup>2</sup>). This results in a daily take estimate of 1.64 individuals for pile driving at the TIF and the POD Meter Station. The daily Level B harassment estimate (1.64 individuals) was then multiplied by the number of days when pile driving will take place (24 days at the TIF and 1 day at the POD Meter Station) to calculate the number of requested takes for pile driving related to the Project. The estimated takes are indicated in table 8.

Level A harassment is not anticipated to occur and authorization was not requested. In-water construction activities will be completed within 1-2 months (a total of 25 to 42 days) and are not expected to result in serious injury or mortality to marine mammals within Barataria Bay. Based on calculated threshold distances in Table 7 for mid-frequency cetaceans, an individual would need to remain within 142.0 ft of the piles being driven throughout the entire day of pile driving activities for cumulative exposure injury to occur. Given the mobility of bottlenose dolphins and the expected behavior of the species to avoid noise disturbance (*i.e.*, pile driving), such a scenario is extremely unlikely to occur.

### **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*

As described below, Columbia Gulf will retain and deploy qualified Protected Species Observers to implement a clearance zone to ensure that BBES bottlenose dolphins are not present within 430 meters of the pile being driven when pile driving activities begin, and also a 50-meter shutdown zone to ensure that dolphins and other marine mammals are not exposed to levels of construction noise associated with Level A harassment. A bubble curtain will be used to lower the overall levels of sound produced by the pile driving, and soft-start measures will allow for even lower sound levels when pile driving starts, allowing time for marine mammals to move away from the source before it gets louder. Columbia Gulf must implement the following mitigation measures:

(a) The Holder must employ Protected Species Observers (PSOs) and establish monitoring locations as described in section 5 of this IHA. The Holder must monitor the Project area to the maximum extent possible based on the required number of PSOs, required monitoring locations, and environmental conditions.

(b) Monitoring must commence 30 minutes prior to initiation of pile driving activity. (*i.e.*, pre-start clearance monitoring) and be continuously maintained until 30 minutes post-completion of pile driving activity.

(c) Pile driving may only begin if visibility is sufficient to allow monitoring of the entire pre-clearance zone (430 m) and the lead PSO determines that it has been clear of marine mammals for 30 consecutive minutes.

(d) If a marine mammal is observed entering or within the shutdown zone (50 m), pile driving activity must be suspended. Pile driving may only commence or resume as described in condition 4(e) of this IHA.

(e) If pile driving is delayed due to the presence of a marine mammal in the pre-start clearance zone or the shutdown zone, the activity may not commence or resume until either the animal has voluntarily exited and been visually confirmed beyond the applicable protective zone, or after 15 minutes have passed without re-detection of the animal.

(f) The Holder must employ soft-start procedures at the start of each day's pile driving activity, and at any time following cessation of impact pile driving that lasts for 30 minutes or longer. Soft-starts require an initial set of three strikes at reduced energy, followed by a 30-second waiting period, then two subsequent reduced-energy strike sets.

(g) The Holder must use a bubble curtain during impact pile driving. The bubble curtain must be operated in a manner most likely to achieve optimal sound dampening performance. At a minimum, the Holder must adhere to the following performance standards:

(i) The bubble curtain must distribute air bubbles around 100 percent of the piling circumference for the full depth of the water column.

(ii) The lowest bubble ring must be in contact with the substrate for the full circumference of the ring, and 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.

(iii) Air flow to the bubblers must be balanced around the circumference of the pile.

(h) Pile driving activity must be halted (as described in condition 4(d) of this IHA) upon observation, at any distance, of either a species for which incidental take is not authorized or a species for which incidental take has been authorized but the authorized number of takes has been met (as shown in table 1 of the IHA).

(i) The Holder, construction supervisors and crews, PSOs, and other personnel must avoid direct physical interaction with marine mammals during construction. If a marine mammal comes within 10 meters of construction activity, operations must cease and vessels must reduce speed to the minimum level required to maintain steerage and safe working conditions, and take other actions as may be necessary to avoid direct physical interaction with the animal.

Based on our evaluation of the applicant's planned measures, NMFS has determined that the planned mitigation measures provide the means of effecting the least practicable impact to BBES bottlenose dolphins and their habitat.

### **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.

### *Monitoring*

The following monitoring will be required during pile installation activities associated with the East Later XPRESS Project:

a) The Holder must establish at least one monitoring location that provides optimal visibility of the pre-clearance and shutdown zone for each location where pile driving will occur. For all pile driving activities, a minimum of one PSO must be assigned to each active pile driving location to log all marine mammal sightings and to monitor the shutdown zone.

b) PSOs must record all observations of marine mammals, regardless of distance from the pile being driven, as well as the additional data indicated in section 6 of this IHA.

c) Monitoring must be conducted by qualified, NMFS-approved PSOs, in accordance with the following conditions:

i) PSOs must be independent of the contractor conducting the specified pile driving activity (for example, employed by a subcontractor) and have no other assigned tasks during monitoring periods.

ii) At least one PSO must have prior experience performing the duties of a PSO during construction activity pursuant to a NMFS-issued incidental take authorization.

iii) Other PSOs may substitute other relevant experience, education (degree in biological science or related field), or training for prior experience performing the duties of a PSO during construction activity pursuant to a NMFS-issued incidental take authorization.

iv) If a team of three or more PSOs is needed in order to meet monitoring requirements, a lead observer or monitoring coordinator must be designated. The lead observer must have prior experience performing the duties of a PSO during construction activity pursuant to a NMFS-issued incidental take authorization.

v) PSOs must be approved by NMFS prior to beginning any activity subject to this IHA.

*Reporting*

Columbia Gulf is required to implement the following reporting measures:

a) Columbia Gulf must submit its draft marine mammal monitoring report for the Project describing all monitoring activities conducted under this IHA within 90 calendar days of the completion of monitoring, or 60 calendar days prior to the requested issuance of any subsequent IHA for construction activity at the same location, whichever comes first. A final report must be prepared and submitted within 30 calendar days following receipt of any NMFS comments on the draft report. If no comments are provided by NMFS within 30 calendar days of receipt of the draft report, the report shall be considered final.

b) All draft and final monitoring reports must be submitted to both *PR.ITP.MonitoringReports@noaa.gov* and *ITP.hotchkin@noaa.gov*.

c) The marine mammal monitoring report must contain the informational elements described in the Request for Authorization, and must include:

(i) Dates and times (begin and end) of all marine mammal monitoring shifts;

(ii) Construction activities occurring during each daily observation period, including:

A. The number and type of piles that were driven and the method (*e.g.*, impact, vibratory, down-the-hole);

B. The number of strikes required to install each pile, or the duration that any vibratory equipment is in use.

(iii) PSO locations during marine mammal monitoring;

(iv) 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;

(v) Summary of all observations of marine mammals, including:

A. Name and location of PSO who sighted the animal(s), bearing to the sighted animal, means of detection and potentially relevant human activity in the area (including construction activity) at time of sighting;

B. Time of sighting;

C. 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;

D. Distance and location of each observed marine mammal relative to the pile being driven at the time of each sighting;

E. Estimated number of animals (min/max/best estimate);

F. Estimated number of animals by cohort (adults, juveniles, neonates, group composition, *etc.*);

G. Animal's closest point of approach and estimated time spent within the pre-start clearance and/or shutdown zone;

H. Description of any marine mammal behavioral observations (*e.g.*, observed behaviors such as feeding or traveling), including an assessment of behavioral responses that may be attributable to construction activity (*e.g.*, no response or changes in behavioral state such as ceasing feeding, changing direction, flushing, or breaching);

I. Observations of skin and body condition, including atypical skin or body condition (if any) and potentially identifying marks or other novel physical characteristics.

(vi) Number of marine mammals detected within the harassment zones, by species;

(vii) Detailed information about implementation of any mitigation (*e.g.*, shutdowns and delays), a description of specific actions that ensued, and resulting changes in behavior of the animal(s), if any; and

(viii) An assessment of implementation and effectiveness of prescribed mitigation and monitoring measures.

(d) The Holder must submit all PSO datasheets and/or raw sighting data with the draft report.

(e) Reporting injured or dead 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.hotchkin@noaa.gov*) and to the Southeast Region marine mammal stranding network (1-877-433-8299) as soon as is feasible. If the death or injury was clearly caused by the specified activity, the Holder must immediately cease the activity until NMFS OPR reviews the circumstances of the incident determines what, if any, additional measures are appropriate to ensure compliance with the terms of this IHA and notifies the holder of these findings and any additional requirements that must be met prior to re-initiation of the activity.

The report of an injured or dead marine mammal must include the following information:

(i) Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);

(ii) Species identification (if known) or description of the animal(s) involved;

(iii) Condition of the animal(s) (including carcass condition if the animal is dead);

(iv) Observed behaviors of the animal(s), if alive;

(v) If available, photographs or video footage of the animal(s); and

(vi) 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 preamble for NMFS’ implementing regulations published in the **Federal Register** (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).

The BBES stock of bottlenose dolphins is considered a strategic stock because mortality attributable to human activity is thought to exceed PBR. However, potential effects of this project on BBES dolphins are limited to Level B harassment in the form of temporary avoidance of the construction area. As described above, no Level A harassment is expected or authorized. This short duration, low impact construction project includes 25 to 42 non-consecutive days of in-water work spread out across a 3-month period. We expect lower-level acoustic exposures from a dolphin swimming through the comparatively small ensonified zone on a day or two. The Level B

harassment zone is about 430 m and the Level A harassment zone is just under 50 m, and the mandatory 50-m monitored shutdown zone is expected to avoid Level A harassment. Given the nature of the harassment, its temporary nature and planned mitigation, NMFS does not expect the take to affect the reproduction or survival of any individuals.

The BBES stock of bottlenose dolphins is also considered a small and resident population, and the Project site is within an identified Biologically Important Area (BIA) for Small and Resident Populations (Lebreque *et al.*, 2015). The BBES stock is present within the area year-round. However, the project area overlaps only a small portion of available habitat and the BIA, and adjacent areas of open water within the embayment will remain accessible to BBES dolphins throughout the construction process.

In summary and as described above, the following factors primarily support our determination that the impacts resulting from this activity are not expected to adversely affect BBES bottlenose dolphins by reducing annual rates of recruitment or survival:

- No serious injury or mortality is anticipated or authorized; and no impacts to reproductive success or survival of any individual animals are expected.
- The required mitigation measures are expected to avoid any Level A harassment and to reduce the number and severity of takes by Level B harassment.
- Behavioral impacts and displacement that may occur in response to pile driving are expected to be limited in duration to 25 to 42 days concurrent with the pile-driving activity.
- The pile driving activities do not impact any known important habitat areas such as calving grounds or unique feeding areas, and alternate habitat is readily available.

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 planned monitoring and mitigation measures, NMFS finds that the

total marine mammal take from the planned pile driving activity will have a negligible impact on BBES bottlenose dolphins.

### **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 to determine whether an authorization is limited to small numbers of marine mammals. When the predicted number of individuals to be taken is fewer 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.

Based on a conservative estimate of the number of takes that may occur as a result of Columbia's pile driving activities, less than two percent of the BBES population will be subject to take via Level B harassment. This is less than the one-third of the stock abundance and meets the criteria for small numbers described above.

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

### **Unmitigable Adverse Impact Analysis and Determination**

No subsistence uses of BBES bottlenose dolphins are known to occur. Therefore, NMFS has determined that the total taking of affected species or stocks will 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 authorized for this activity. Therefore, NMFS has determined that formal consultation under section 7 of the ESA is not required for this action.

## **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 determined that the issuance of the IHA qualified to be categorically excluded from further NEPA review.

## **Authorization**

NMFS has issued an IHA to Columbia Gulf, LLC for the potential harassment of small numbers of marine mammal species incidental to the East Lateral XPRESS project

in Barataria Bay, Louisiana, that includes the previously explained mitigation, monitoring, and reporting requirements.

Dated: April 4, 2024.

**Kimberly Damon-Randall,**

*Director, Office of Protected Resources,*

*National Marine Fisheries Service.*

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