

Attn:

Jolie Harrison, Chief,

Permits and Conservation Division,

Office of Protected Resources,

National Marine Fisheries Service

We are writing in opposition to this permit. We live at the mouth of Ward Cove, and we want to see the seals and their pups not suffer damage due to construction of the above mentioned cruise ship dock. The cove has also been visited on many occasions by orca and humpback whales.

Maura & Joe Odell

Norris, J. Michael <mnorris@usgs.gov>

Fri, Mar 20, 3:5

to ITP.Meadows@noaa.gov

The USGS has no comment to offer at this time.

J. Michael Norris

James Michael Norris (Mike)

Water Mission Area

Office of Quality Assurance

Manager of Environmental Document Review Program

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Jolie Harrison, Chief
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
VIA EMAIL: ITP.Meadows@noaa.gov

April 2, 2020

Re: Ward Cove Cruise Ship Dock Project Proposed IHA [RTID 0648–XR099]

Dear Ms. Harrison,

Defenders of Wildlife is national nonprofit organization dedicated to the protection of all native animals and plants in their natural communities. Founded in 1947 and representing over 1.8 million members and supporters including over 6000 in Alaska, Defenders prioritizes protecting and restoring imperiled species and their habitats in North America to conserve our nation's rich biological heritage. We have a field office in Anchorage, Alaska and actively advocate for the conservation of imperiled marine mammals in Alaska. We appreciate this opportunity to comment on NMFS's proposed Incidental Harassment Authorization (IHA) for marine mammals related to the above-referenced project.

First, we request an extension of this comment period due to the difficulty that we, and members of the public generally, are encountering in trying to conduct business on typical timeframes in light of the COVID-19 pandemic. We understand that this proposed IHA was published on March 3, a bit before the impact of the virus was broadly understood in the United States, and before social distancing measures took substantial effect and businesses and government agencies reduced or eliminated regular business hours and services.

In the intervening time, the nation and the world has put into place many measures intended to reduce the spread of the virus that make it challenging to proceed with business as usual, including responding to typical 30-day agency comment deadlines. On March 20, the National Governors Association and many other state and local governmental organizations across the country requested

that the federal government toll pending comment periods on proposed actions.¹ We request the same in this case.

Additionally, it is unclear whether there is sufficient time for the applicant to complete the work as envisioned for 2020. The President declared a national emergency on March 13 and recently extended national social distancing guidelines through the end of April. The state of Alaska issued a “shelter in place” order on Friday, March 27 that runs through mid-April. And “due to the exponential spread of the COVID-19 virus in Ketchikan,” the Ketchikan Gateway Borough issued a shelter in place order on March 21 that urged non-essential businesses to close for at least 14 days.

These extraordinary measures have completely altered the lives of virtually all Americans. The degree of the ensuing societal upheaval is difficult to catalogue but one measure of it can be seen in the \$2 trillion stimulus package that Congress saw fit to enact this week. Travel of all kinds is restricted, and the wisdom and viability of cruise ship travel in particular is very uncertain for the 2020 tourist season. This outlook seems relevant for a cruise ship dock construction project. Particularly if the project timeline needs to be substantially adjusted in any event, NMFS should not process this application at this time.

If NMFS does process this application, however, then we call your attention to a discrepancy in the record regarding the construction timeline as explained below. We also request electronic copies of project-related reports that should already have been submitted to NMFS.

The proposed IHA states that “Under an existing permit issued by the Army Corps of Engineers and an Endangered Species Act (ESA) Section 7 Letter of Concurrence issued by NMFS, impact pile driving will cease by June 30 to protect endangered salmon and vibratory pile driving and rock anchoring will cease by July 31 to protect other ESA listed species.”² But that Letter of Concurrence (LOC) requires that “All in-water work will be completed by May of each calendar year” to protect humpback whales and other marine mammals.³ It also notes that juvenile salmon may not be large enough to move away from the construction activity; because juvenile salmon outmigrate in spring, NMFS recommends that “construction conclude in early spring to avoid impacts to this vulnerable life stage of salmon.”⁴

While humpback whales, including individuals from the endangered Mexico DPS, “are more commonly seen in the vicinity of the project area in the summer and fall, they have also been documented in the action area in other months and may occur in the area when the pile driving is occurring.”⁵ Thus, provision requiring work to be completed by the end of May was critical to NMFS’s concurrence that the project would not “take” humpback whales because humpbacks are

¹ See Letter to the President from National Governors Association et al., available at <https://www.nga.org/letters-nga/state-and-local-government-organizations-seek-pause-on-public-comments-on-rulemaking-processes/>.

² 85 Fed.Reg. at 12524.

³ NMFS Letter of Concurrence, January 9, 2020 at p.9.

⁴ The LOC references no endangered salmon and no July 31 date for other listed species.

⁵ LOC at 12.

generally less likely to be present in the project area before the end of May.⁶ No take of any humpback whale is authorized at all for this project. The proposed IHA for harbor seals, Dall's porpoise and harbor porpoise should clarify this point, remain consistent with the LOC requirement that in-water work to be completed by the end of May.⁷

The ability to ensure that the project "takes" no humpback whales and other marine mammals (besides harbor seals and harbor porpoises) depends on the use of at least four Protected Species Observers (PSOs) positioned such that the entire exclusion zone is visible to them. The PSOs must be in direct communication with on-site project lead, have shutdown authority, and are responsible solely to "watch for and report on events related to marine mammals."⁸ PSOs are required to file monthly reports by the fifth day of the month following the reporting period.⁹ We hereby request a copy of the February 2020 PSO report (presumably submitted to NMFS by March 5, 2020) and the March 2020 PSO report (to be submitted by April 5, 2020).

The LOC states that "Solstice,¹⁰ in coordination with NMFS, will perform an SSV study to determine the actual area that would be ensonified to at least 120 dBrms re 1µPa (or above background noise levels, if those are higher.)"¹¹ Since work on the project has commenced, we request a copy of that study determining the ensonified area. We also request a copy of the acoustic monitoring plan required to be submitted and approved by NMFS prior to any pile-driving.¹²

In sum, we urge NMFS to pause in processing this IHA application. If the agency chooses to issue the IHA, it must clarify and reinforce the project timeline already established in the LOC and make clear to the Corps and the applicant that the contradictory information in the Corps permit must be interpreted consistent with the LOC to prohibit in-water work beyond May 2020. We also request copies of the PSO reports, SSV study identifying the ensonified area, and the acoustic monitoring plan as stated above.

Sincerely,

/s/

Patrick Lavin
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⁶ LOC at 13

⁷ Unfortunately, the Corps of Engineers permit further confuses this point. It states in one place that the permittee must follow the LOC (requiring in-water work to be completed by the end of May) but elsewhere that pile-driving must be completed by the end of June and in-water work by the end of July). Compare Corps Permit No. POA-2019-00313 at p. 3, 4.

⁸ LOC at 8-9.

⁹ LOC at 9.

¹⁰ Solstice Alaska Consulting is the non-federal Corps' representative for the humpback whale Endangered Species Act consultation. LOC at 1.

¹¹ LOC at 7.

¹² LOC at 11.



MARINE MAMMAL COMMISSION

23 March 2020

Ms. Jolie Harrison, Chief
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3225

Dear Ms. Harrison:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the application submitted by Power Systems & Supplies of Alaska (PSSA) seeking authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act (the MMPA) to take small numbers of marine mammals by harassment. The taking would be incidental to dock construction in Ketchikan, Alaska. The Commission also has reviewed the National Marine Fisheries Service's (NMFS) 3 March 2020 notice (85 Fed. Reg. 12523) announcing receipt of the application and proposing to issue the authorization, subject to certain conditions.

PSSA plans to remove and install piles during construction of cruise ship docks in Ward Cove. Operators would (1) install and remove up to 48 30-in temporary steel pipe piles using a vibratory hammer and (2) install up to 54 30- to 48-in permanent steel pipe piles using vibratory, impact, and/or down-the-hole (DTH) hammers. PSSA's activities could occur on up to 105 days, weather permitting. It would limit pile-driving and -removal activities to daylight hours¹.

NMFS preliminarily has determined that, at most, the proposed activities could cause Level A and/or B harassment of small numbers of three marine mammal species. NMFS anticipates that any impact on the affected species and stocks would be negligible. NMFS also does not anticipate any take of marine mammals by death or serious injury and believes that the potential for disturbance will be at the least practicable level because of the proposed mitigation measures. The proposed mitigation, monitoring, and reporting measures include—

- implementing various soft-start, delay, and shut-down procedures;
- ceasing activities if any marine mammal comes within 10 m of any heavy equipment (including barges) and reducing vessel speed to the minimum level required to maintain steerage and safe working conditions;
- using four qualified protected species observers to monitor the Level A and B harassment zones for 30 minutes before, during, and for 30 minutes after the proposed activities;

¹ Impact pile driving must cease by 30 June to protect endangered salmon and vibratory pile driving and DTH drilling must cease by 31 July to protect other species listed under the Endangered Species Act.

- using delay and shut-down procedures, if a species for which authorization has not been granted or if a species for which authorization has been granted but the authorized takes are met, approaches or is observed within the Level A and/or B harassment zone;
- reporting injured and dead marine mammals to the Office of Protected Resources and the Alaska Regional Stranding Coordinator; and
- submitting a draft and final report.

In addition, PSSA contacted the Alaska Harbor Seal Commission, the Alaska Sea Otter and Steller Sea Lion Commission, and the Ketchikan Indian Community (KIC). The Alaska Harbor Seal Commission is not currently operational, and the Alaska Sea Otter and Steller Sea Lion Commission provided no comments. PSSA met with KIC, and KIC provided comments for the U.S. Army Corps of Engineers' permit but did not express concern regarding subsistence hunting. Based on the proposed activities and mitigation measures, NMFS has preliminarily determined that the proposed taking would not have an unmitigable adverse impact on the availability of marine mammals for subsistence use by Alaska Natives.

Source levels in general

The Commission informally noted multiple issues regarding the source levels described or used by NMFS. Specifically for source levels involving impact installation of piles—

- The *Federal Register* notice incorrectly noted that the source levels measured by Denes et al. (2016) from Ketchikan were used as proxy source levels for vibratory and impact installation of 30-in piles (85 Fed. Reg. 12533). Denes et al. (2016) was used as a proxy for vibratory installation of 30-in piles, while measurements made by Austin et al. (2016) from Anchorage were used for impact installation of 30-in piles (see Table 4 in the *Federal Register* notice).
- The *Federal Register* notice omitted that source levels from impact installation of 48-in piles were used as proxies for both 30- and 36-in piles.
- PSSA and NMFS incorrectly assumed that the source levels for impact installation of 48-in piles² were referenced to 10 m rather than 11 m (see median source levels for IP5 in Tables 7 and 9³ in Austin et al. 2016)⁴. Those errors resulted in the underestimation of the various Level A harassment zones⁵ noted in Table 7 of the *Federal Register* notice⁶ and related text (85 Fed. Reg. 12535).
- PSSA and NMFS used 212 rather than 212.5 dB re 1 μ Pa as the source level based on peak sound pressure level (SPL_{peak}) for impact installation of 48-in piles² (Table 7 in Austin et al. 2016)⁴.

² As well as 30- and 36-in piles.

³ These tables also were incorrectly noted as Tables 9 and 16 in Table 4 of the *Federal Register* notice.

⁴ The same issues were noted in the Commission's [10 February 2020 letter](#) regarding the proposed incidental harassment authorization for Halibut Point Marine Services (HPMS).

⁵ The Level A harassment zones should be (1) 359.9 rather than 327.2 m for low-frequency (LF) cetaceans, 12.8 rather than 11.6 m for mid-frequency (MF) cetaceans, 428.7 rather than 389.7 m for high-frequency (HF) cetaceans, 192.6 rather than 175.1 m for phocids, and 14.0 rather than 12.7 for otariids for impact installation of 30-in piles and (2) 663.0 rather than 602.7 m for LF cetaceans, 23.6 rather than 21.4 m for MF cetaceans, 789.7 rather than 717.9 m for HF cetaceans, 354.8 rather than 322.5 m for phocids, and 25.8 rather than 23.5 for otariids for impact installation of 36- and 48-in piles.

⁶ And Table 2 of the draft authorization.

- The *Federal Register* notice omitted the root-mean-square SPL (SPL_{rms}) source level of 198.6 dB re 1 μ Pa at 10 m for impact installation of 48-in piles².

For vibratory installation, the *Federal Register* notice omitted that the source levels of 36- and 48-in piles originated from Austin et al. (2016) and that the source levels for 48-in piles were again used as a proxy for 36-in piles (85 Fed. Reg. 12533).

Although NMFS indicated that it would rectify these issues in the *Federal Register* notice and final authorization, these types of issues have been ongoing. In addition, NMFS has again used two different sets of source levels that originate from the same data. For PSSA⁷, NMFS proposed to use median proxy source levels from a single pile, IP5, based on Austin et al. (2016). For the recent Port of Alaska authorization, NMFS proposed to use the average of the median source levels of piles IP1 and IP5 based on Austin et al. (2016; see Table 6 on 84 Fed. Reg. 72173). It is unclear how NMFS can deem two different sets of source levels⁸ as best available, particularly when they originate from the same underlying data. To improve consistency and appropriateness of proxy source levels, the Commission again recommends that NMFS (1) have its experts in underwater acoustics and bioacoustics review and finalize its recommended proxy source levels for both impact and vibratory installation of the various pile types and sizes and (2) make available to action proponents the database of proxy source levels. If the proxy source levels for impact pile driving are finalized prior to those for vibratory pile driving and removal, they should be made available to action proponents and the public when completed and should not be retained until the vibratory source levels are finalized.

DTH drilling

Similar to issues delineated in the Commission's [10 February 2020 letter](#) and [9 January 2020 letter](#), NMFS's characterization of DTH drilling for PSSA's authorization is inconsistent with other recent authorizations. NMFS characterized DTH drilling as a *non-impulsive*, continuous source rather than an *impulsive*⁹, continuous source¹⁰ as referenced in other recent authorizations (City of Astoria, 84 Fed. Reg. 68133). In addition to the mischaracterization of the source, NMFS used an underestimated and inappropriate source level from Denes et al. (2016)¹¹ compared to other recent

⁷ As well as HPMS.

⁸ PSSA's revised source levels are 212.5 dB re 1 μ Pa_{peak} at 11 m, 198.6 dB re 1 μ Pa_{rms} at 10 m, and 186.7 dB re 1 μ Pa²-sec_{single-strike (s-s)} at 11 m; while POA's source levels were 215 dB re 1 μ Pa at 10 m_{peak}, 200 dB re 1 μ Pa_{rms} at 10 m, and 187 dB re 1 μ Pa²-sec_{s-s} at 10 m.

⁹ Chesapeake Tunnel Joint Venture (CTJV) assumed that impulsive, thus intermittent, characteristics predominated at its site when the DTH hammer was used and in-situ measurements were obtained by Denes et al. (2019; 84 Fed. Reg. 64854-64855). Denes et al. (2019) determined that approximately 7 pulses occurred during a 1-sec waveform.

¹⁰ In-situ measurements obtained by the Federal Aviation Administration (FAA) at Bioka Island (Guan pers. comm.) and White Pass and Yukon Route (Reyff and Heyvaert 2019) also have confirmed *impulsive*, continuous aspects of DTH drilling, as depicted in the spectrograms and time-series waveform data. The Commission understands that NMFS's acoustic expert has consulted with acousticians who have conducted measurements of DTH drilling and indicated that DTH drilling has impulsive characteristics and that source levels do increase with increasing pile size, similar to impact pile driving.

¹¹ NMFS assumed a source level of 166.2 dB re 1 μ Pa_{rms} at 10 m from Kodiak.

authorizations¹² (City of Astoria, 84 Fed. Reg. 68139¹³ and CTJV and Hampton Roads Connector Partners, 84 Fed. Reg. 64863 and 85 Fed. Reg. 16194, respectively¹⁴). To estimate the Level A harassment zones and determine whether and how many Level A harassment takes should be authorized, the sound source must be characterized correctly to ensure the appropriate Level A harassment threshold¹⁵ is used and the source level must be sufficiently accurate.

The Commission reiterates that NMFS must take a precautionary approach when estimating the harassment zones and associated numbers of takes during DTH drilling. As described in the three most recent in-situ monitoring data and reports noted herein, and alluded to by Denes et al. (2016) and Dazey et al. (2012)¹⁶, DTH drilling has impulsive characteristics. Those characteristics are especially prevalent when used in areas where bedrock is present—which was the case for all three monitoring datasets and was noted to be the case for PSSA’s project site. PSSA’s application indicated that the 36- and 48-in piles would be seated into bedrock with an impact hammer and the shaft would be drilled using a top head drive (THD)¹⁷/DTH hammer combination. PSSA specifically stated that it would use a Holte 100,000 ft-lbs top drive with a DTH hammer and bit to drill the shaft. The THD/DTH hammer is comparable to the Delmag D46 impact hammer, which would emit a maximum energy of 107,280 ft-lbs (see section 3.2.1 of PSSA’s application). Both THD¹⁸ and DTH drilling¹⁹ emit impulsive sounds²⁰ (e.g., Song et al. 2018). As noted by Song et al. (2018), simply put, the *percussive* drilling mechanism utilizes the *percussive* energy resulting from the *repeated impact* of the drifter (THD rigs) *or* the DTH hammer (DTH rigs) and the feed and rotation forces that are transmitted to the drill bit through the drill rod²¹.

¹² And as referenced in other monitoring reports. Reyff and Heyvaert (2019) indicated that the source levels were 199 dB 1 $\mu\text{Pa}_{\text{peak}}$, 184 dB re 1 $\mu\text{Pa}_{\text{rms}}$, and 179 dB re 1 $\mu\text{Pa}^2\text{-sec}_{\text{s-s}}$ at 10 m; while Denes et al. (2019) indicated that the source levels were 190 dB 1 $\mu\text{Pa}_{\text{peak}}$, 180 dB re 1 $\mu\text{Pa}_{\text{rms}}$, and 164 dB re 1 $\mu\text{Pa}^2\text{-sec}_{\text{s-s}}$ at 10 m

¹³ In which the source level for impact installation of 24-in piles and the related Level A harassment zones were used as proxies for the Level A harassment zones for DTH drilling. NMFS used source levels of 200 dB 1 $\mu\text{Pa}_{\text{peak}}$, 187 dB 1 $\mu\text{Pa}_{\text{rms}}$, and 171 dB re 1 $\mu\text{Pa}^2\text{-sec}_{\text{s-s}}$ at 10 m.

¹⁴ In which the in-situ measured source levels from Denes et al. (2019) of 190 dB 1 $\mu\text{Pa}_{\text{peak}}$, 180 dB 1 $\mu\text{Pa}_{\text{rms}}$, and 164 dB re 1 $\mu\text{Pa}^2\text{-sec}_{\text{s-s}}$ at 10 m were used for DTH drilling.

¹⁵ A point to note, Level A harassment thresholds are based on whether the source is considered *impulsive* or *non-impulsive*. The Level B harassment thresholds are based on whether the source is considered *intermittent* or *continuous*. Level A harassment thresholds for impulsive sources are 13 to 18 dB greater than non-impulsive sources based on the relevant functional hearing group (see Table 5 of the *Federal Register* notice).

¹⁶ The Commission only knows of one other reference that includes source levels for DTH drilling. Dazey et al. (2012) indicated that the pneumatic percussive drilling aspects of DTH drilling occurred closer to shore where fewer underwater obstacles were encountered. Thus, the substrate likely was sandier and the source levels were lower and more comparable to auger drilling that occurred farther offshore where more underwater obstacles (likely rock) were encountered.

¹⁷ PSSA indicated that this was a ‘top drive’ hammer in its application, while Holte specified it to be a ‘top head drive’ (<https://drilling.com/drilling-items/rotary-top-head-drives/>). Song et al. (2018) termed it a ‘drifter’ used during ‘top-hammer drilling’. Although the terms differ between the references, the equipment, installation method, and mechanism by which it operates are the same and considered as such herein.

¹⁸ In which the percussive force of the top drive hammer is produced by the piston of the pump in the hydraulic drilling rig and transmitted to the drill bit via the shank adapter and drill pipe itself.

¹⁹ In which the drive hammer is directly behind the drill bit and is fed by compressed air in the drill pipe.
<https://www.robogroup.com/products/dth-drilling/>

²⁰ <https://medium.com/@qdbonmach/the-difference-between-3-rock-drilling-methods-rotary-drilling-dth-drilling-and-top-hammer-efe5789a08e2>.

²¹ See Figure 1 in Song et al. (2018).

It is unclear why NMFS continues to ignore the fact that DTH drilling has impulsive characteristics²² and that recent in-situ measurements have indicated that PSSA's presumed source level has the potential to be underestimated by 14 to nearly 18 dB. Both shortcomings would lead to a significant underestimation of the Level A harassment zones for DTH drilling, potentially resulting in additional Level A harassment takes. The following factors highlight the insufficiency of the source levels NMFS has proposed to use. First, the size of the shaft to be drilled by PSSA differs from that measured by Denes et al. (2016). Denes et al. (2016) measured drilling associated with 24-in piles, while PSSA plans to drill shafts in 36- and 48-in piles. As noted herein and as is observed with other impulsive sources (i.e., impact hammers), larger piles driven and larger shafts drilled would result in higher source levels. During DTH drilling, the hammer impacts the entire surface area of bedrock through which it is drilling. Second, a Multi-Power 50 top drive hammer²³ with a maximum energy of 55,000 ft-lbs was used to drill the shafts within the 24-in piles (section 1 in Warner and Austin 2016²⁴). That hammer emits approximately half the energy of the Holte 100,000 ft-lbs top head drive that PSSA plans to use. Third, Denes et al. (2016) did not analyze the DTH drilling data appropriately for an impulsive source. Section 5.3.4 in Denes et al. (2016) noted that the source levels for DTH drilling were based on 1-sec averages, the same as for vibratory pile driving (sections 5.3.2 and 5.3.3)²⁵. For impact pile driving, source levels were based on a single strike. The resulting source levels would be lower than expected for DTH drilling when inappropriate signal processing is conducted. That is, Denes et al. (2016)²⁶ averaged the sound across the entire second, thereby artificially reducing the energy emitted by a single pulse based on integrating across the lower sound levels between the pulses²⁷.

Although these issues should dissuade NMFS from using source levels from Denes et al. (2016)²⁶ to represent the *impulsive* characteristics of DTH drilling, a perceived paucity of data from other DTH drilling monitoring efforts should not deter NMFS from using those data. NMFS has previously based proxy source levels on fewer datasets or on methods and pile types that are not the same as those proposed for use by the action proponent. Consistent with other recent authorizations and recent in-situ monitoring reports, the Commission recommends that NMFS (1) re-estimate the Level A harassment zones for DTH drilling based on source levels provided either by Reyff and Heyvaert (2019) *or* Denes et al. (2019), NMFS's Level A harassment thresholds for impulsive sources, and the relevant expected operating parameters²⁸ and (2) increase the numbers of Level A harassment takes accordingly. If NMFS does not revise the Level A harassment zones based

²² As noted in each of the five available datasets and/or described with regard to its pneumatic percussive attributes in the associated reports and references, as well as in the plethora of references in the mining and drilling literature.

²³ <https://www.multipowerproducts.com/english/products/large-diameter-drilling-top-drives-and-accessories/>.

²⁴ Table 1 of Denes et al. (2016) omitted the type of top drive hammer that was used. Warner and Austin (2016) provide all of the relevant data and information for source level measurements at Kodiak; whereas, Denes et al. (2016) is the comprehensive report for measurements taken at Ketchikan, Kodiak, Kake, and Auke Bay.

²⁵ More detailed data are provided in section 3.4 for DTH drilling and sections 3.2 and 3.3 for vibratory driving in Warner and Austin (2016).

²⁶ Based on Warner and Austin (2016).

²⁷ The number of pulses per second ranged from 7 pulses for CTJV (Denes et al. 2019) to 13 or 14 pulses for FAA (Guan pers. comm.).

²⁸ Level A harassment zones for impulsive sources are based on the number of pulses expected to be emitted in a given day. The number of pulses should be based on the operational parameters (i.e., pulses per minute and minutes of drilling per shaft to yield pulses per shaft) and the number of shafts to be drilled in a given day, not based on unsubstantiated assumptions (e.g., a 50-percent reduction in pulses expected to be emitted; 84 Fed. Reg. 64863 or the assumption that an animal would remain in the cove for only one hour).

on a more appropriate proxy source level and the Level A harassment thresholds for impulsive sources, the Commission recommends that NMFS justify why it does not consider a THD/DTH hammer to be an *impulsive*, continuous sound source.

If NMFS believes that sufficient data are not available to characterize DTH drilling appropriately at this time, then the Commission recommends that NMFS require all applicants that propose to use a DTH hammer to install piles, including PSSA, to conduct in-situ measurements, ensure that signal processing is conducted appropriately²⁹, and adjust the Level A and B harassment zones accordingly. In recent years and particularly in Alaska, numerous action proponents have been using this method. Thus, it is imperative that this sound source be characterized appropriately and the associated source levels be provided accordingly. Furthermore, action proponents have not described DTH drilling with consistent terminology³⁰ or provided the relevant operational information³¹ and characteristics³² in their applications. The Commission recommends that NMFS (1) require action proponents to provide the necessary operational information³¹ and characteristics³² for DTH drilling in each relevant application irrespective of what terminology is used, (2) encourage action proponents to use consistent terminology regarding DTH drilling in all relevant applications, and (3) use consistent terminology in all future *Federal Register* notices and draft and final authorizations that involve DTH drilling.

Unauthorized taking

The Commission had recommended for many years that action proponents, in addition to reporting injured and dead marine mammals, be required to cease activities if the activities caused the injury or death until NMFS determines what modifications or additional mitigation measures need to be implemented to avoid additional injuries or deaths. Approximately eight years ago and presumably in response to the Commission's repeated recommendations, NMFS began requiring action proponents to report injured and dead marine mammals using its phased approach and to cease activities, if appropriate (details of which can found at 85 Fed. Reg. 72181³³). NMFS attempted to simplify that measure for recent authorizations, including PSSA's proposed authorization. However, in simplifying the measure, NMFS would require the action proponent to report the injured or dead marine mammal only—it would not explicitly require the action proponent to cease activities if the activities caused an injury or death³⁴. NMFS has indicated informally that, because the authorization includes the general condition that serious injury and death is prohibited in a general condition(s) in the draft authorization, it is unnecessary to include additional prescription to state a

²⁹ It may be appropriate to average the sound levels across 1 sec to estimate the source level used to determine the range to Level B harassment, as those thresholds are based on whether the source is continuous or intermittent. Given that DTH drilling is an impulsive, *continuous* sound source, source levels based on 1-sec averages may be appropriate for *Level B harassment*. However, sound levels associated with the *impulsive* aspects of DTH drilling should be extracted and analyzed separately as single strikes, similar to impact pile driving, to determine the range to *Level A harassment*.

³⁰ DTH drilling, DTH hammering, rock socket drilling, anchor drilling, tension anchor drilling, pile drilling, etc. are all used to describe the same activity.

³¹ Hammer and drill bit model, hammer energy, bit size, shaft size, etc.

³² The number of shafts to be drilled per day and pulses per minute and minutes of drilling per shaft to yield pulses per shaft.

³³ See section 6(e) in <https://www.fisheries.noaa.gov/webdam/download/100337105>.

³⁴ NMFS did include this measure in the proposed mitigation section of the *Federal Register* notice (85 Fed. Reg. 12536) but indicated that inclusion of the measure was as an error when the Commission asked why the same measure was not included in the draft authorization.

condition already required. The Commission supports simplifying the measure but disagrees with NMFS's legal interpretation of its general conditions.

Condition 3(d) of the draft authorization stated that the taking by injury (Level A harassment), serious injury, or death of any of the species listed in condition 3(b) of this incidental harassment authorization is prohibited. Similarly condition 3(e) stated that the taking by Level A and B harassment, serious injury, or death of a marine mammal species not identified in condition 3(b) is prohibited. Neither condition in PSSA's draft authorization included the further stipulation that any unauthorized taking may result in the modification, suspension, or revocation of the authorization—as was included in HPMS's draft authorization³⁵. Although NMFS may consider the requirement to cease activities to be implied in PSSA's authorization, a plain reading of the conditions include no legally-binding requirement for the action proponent to cease its activities³⁶. Depending on when an injured or dead marine mammal is discovered, immediate reporting to NMFS may not be possible, particularly for activities that occur on the west coast of the United States outside of normal business hours for the east coast or on weekends. The action proponents would not be directed verbally by NMFS to cease the activities until the circumstances can be reviewed and additional mitigation measures be required if necessary. It is unclear why NMFS is including conditions and requirements that are less and less transparent, particularly when previous circumstances have shown that action proponents are more apt to follow clear and concise requirements.

For example, in December 2010, a dead harbor seal was discovered entangled in buoy lines used to mark which piles were to be removed during construction activities in Washington. The necropsy showed that the animal likely died of drowning. At that time, action proponents were not required to report injured or dead marine mammals to NMFS or to cease activities. For the following year of activities, the Commission recommended³⁷ that the action proponent immediately report all injured or dead marine mammals to NMFS and the local stranding network and suspend the construction activities if a marine mammal was seriously injured or killed and the injury or death could have been caused by those activities (e.g., a fresh carcass is discovered). NMFS concurred with the Commission and included the requirement (76 Fed. Reg. 67421). In July 2013, a live pregnant harbor seal became stuck in an action proponent's work boat and subsequently died of hyperthermia. NMFS had included the phased reporting requirements in that authorization and the action proponent appeared to have followed them.

The Commission understands that unanticipated events occur. Therefore, it is imperative that incidental harassment authorizations include clear, concise, explicit measures to minimize any ambiguity of what action proponents should do in those circumstances. As such, the Commission recommends that NMFS continue to include in all draft and final incidental harassment authorizations, as it has in the last eight years, the explicit requirements to cease activities if a marine mammal is injured or killed during the proposed activities *until* NMFS reviews the circumstances involving any injury or death that has been attributed to the activities *and* determines what additional measures are necessary to minimize additional injuries or deaths³⁸.

³⁵ <https://www.fisheries.noaa.gov/webdam/download/102717427>.

³⁶ Condition 7 in PSSA's draft authorization does not include a legally-binding requirement either.

³⁷ See the Commission's [11 October 2011 letter](#).

³⁸ This requirement can be retained in section 6(c) similar to all previous authorizations or it could be inserted into general conditions 3(d) and (e).

Proposed one-year authorization renewals

NMFS has indicated that it may issue a one-year incidental harassment authorization renewal for this and other future authorizations if various criteria are met and after an expedited public comment period of 15 days. The Commission and various other entities (e.g., 84 Fed. Reg. 31035 and 52466) have asserted that the renewal process is inconsistent with the statutory requirements under section 101(a)(5)(D) of the MMPA. As such, the Commission recommends that NMFS refrain from issuing renewals for any authorization and instead use its abbreviated *Federal Register* notice process. That process is similarly expeditious and fulfills NMFS's intent to maximize efficiencies.

Over the past few years, NMFS has told the Commission that a renewal would be issued as a one-time opportunity, after which time a new authorization application would be required. NMFS also has included such verbiage in its response to comments regarding renewals. Specifically, NMFS indicated that it had modified the language for future proposed incidental harassment authorizations to clarify that all authorizations, including renewal authorizations, are valid for no more than one year and that the agency will consider *only one renewal* for a project at this time (e.g., 84 Fed. Reg. 36892 from 30 July 2019). However, NMFS has yet to stipulate that the agency will consider *only one renewal* or that a renewal is a *one-time opportunity* in any *Federal Register* notice requesting comments on the possibility of a renewal, on its webpage detailing the renewal process³⁹, or in any draft or final authorization that includes a term and condition for a renewal (including section 8 of PSSA's draft authorizations).

In response to the Commission's 29 November 2019 letter recommending that NMFS stipulate those specifics in the relevant documents and on its webpage, NMFS indicated that, in the 'summary' portion of its notices, it requests comments on a possible *one-year renewal* that could be issued under certain circumstances and if all requirements are met (84 Fed. Reg. 68131). However, neither the notices nor the webpage or final authorizations state that *one-year renewals* are *one-time opportunities*. NMFS also indicated that, for notices involving proposed renewals, it has not included an option of an additional renewal (84 Fed. Reg. 68131). Absent specifics regarding one-year renewals being a one-time opportunity in the *Federal Register* notices, on NMFS's webpage, and more importantly as a term and condition in its draft and final authorizations, NMFS appears to knowingly allow that door to remain open. If NMFS chooses to continue proposing to issue renewals, the Commission recommends that it (1) stipulate that a renewal is a *one-time opportunity* (a) in all *Federal Register* notices requesting comments on the possibility of a renewal, (b) on its webpage detailing the renewal process, and (c) in all draft and final authorizations that include a term and condition for a renewal and, (2) if NMFS refuses to stipulate a renewal being a one-time opportunity, explain why it will not do so in its *Federal Register* notices, on its webpage, and in all draft and final authorizations.

³⁹ <https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-harassment-authorization-renewals>

The Commission hopes you find its letter useful. Please contact me if you have questions regarding the Commission's recommendations.

Sincerely,



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Executive Director

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