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RE: Taking Marine Mammals Incidental to Narwhal, LLC Oil and Gas Exploration Activities in West Harrison Bay, Alaska

The Center for Biological Diversity submits the following comments to the National Marine Fisheries Service (NMFS) on a proposed incidental harassment authorization (IHA) that would allow Narwhal, LLC to take marine mammals incidental to oil and gas exploration activities in West Harrison Bay, Alaska. The project threatens the survival of threatened and endangered ice seals, bowhead whales, and other Arctic wildlife. NMFS's authorization must ensure the least practicable adverse impact on marine mammals and therefore should consider additional mitigation and alternatives.

The Proposed IHA Fails to Comply with the MMPA

The IHA fails to comply with the substantive requirements of the Marine Mammal Protection Act (MMPA) by underestimating take, including an arbitrary negligible impact determination, and by failing to ensure the least practicable adverse impact on the species or stocks to be taken.

Narwhal is proposing to conduct shallow hazard geophysical surveys and exploratory drilling operations, including the construction and operation of ice trials, roads, and pads, in West Harrison Bay, Alaska. According to the project description, shallow water hazard surveys "would use airguns and sparkers as acoustic sources and would introduce underwater sound that may result in take by Level B harassment of marine mammals." Narwhal proposes to conduct shallow hazard surveys using the seismic airgun at six sites for over 12-hour periods per day over the course of approximately 12 days between August and September during the open water (i.e., ice-free season). Additionally, "construction and operation of the sea ice trails around the Colville River Delta may result in take by Level B harassment of ringed seals due to the introduction of underwater sound." Construction of the ice road and trail "would occur over approximately 167 days and would occur as needed throughout a 24-hour period." Narwhal also

plans to conduct exploratory drilling operations upon completion of the sea ice roads and pads, which would occur over approximately 82 days and would be conducted 24 hours per day. Narwhal requests to take four species of marine mammals, including the bowhead whale, bearded seal, ringed seal, and spotted seal, by Level B harassment.[1]

The Project Underestimates Take, Resulting in a Flawed Negligible Impact Determination.

The MMPA prohibits unauthorized "take" — a broad term that encompasses any form of hunting or killing, as well as harassment or annoyance.[2] The law requires that healthy populations of marine mammals "be protected and encouraged to develop to the greatest extent feasible commensurate with sound policies of resource management."[3] NMFS may nevertheless authorize taking, but only if it demonstrates that the total take will have a "negligible impact" on the species or stock.[4]

First, the proposed activities, namely the use of seismic air guns, sparkers, ice road and trail construction, and the exploratory drilling will result in acoustic stressors in marine mammals which could result in auditory threshold shifts and behavioral disturbance. Takes via Level B harassment (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) will have adverse consequences to all four species affected.

Ice seals, including ringed, bearded, and spotted seals, rely heavily on sound for vital behaviors such as navigation, communication, foraging, and avoiding predation.[5] Spotted and ringed seals are especially sensitive to noise and have been observed hauling out in response to boat and aircraft noise.[6] Similarly, Bowhead whales depend on acoustic cues for essential life functions, including communication and mating, and are disturbed by loud noises, including the use of airguns and sparkers. Research has demonstrated that bowhead whales are especially sensitive to

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[1] 90 Fed. Reg. 21182 (May 16, 2025). Level B Harassment: bowhead whale (37); ringed seal (2,509); spotted seal (504); bearded seal (320).
[2] 16 U.S.C. §§ 1371(a), 1372(a), 1362(13).
[3] 16 U.S.C. § 1361(6); *see also Kokechik Fishermen's Ass'n v. Sec'y of Comm.*, 839 F.2d 795, 802 (D.C. Cir. 1988).
[4] 16 U.S.C. § 1371(a)(5)(A)(i).
[5] Sills, J.M., Southall, B. and Reichmuth, C., Amphibious hearing in spotted seals (Phoca largha): underwater audiograms, aerial audiograms and critical ratio measurements, 217 Journal of Experimental Biology 726-34 (2015).
[6] Bradford, A.L., et al. Spotted sea haul-out patterns in a coastal lagoon on Sakhalin Island, Russia, Mammal study 30:145 (2005); Born, E.W. et al., Escape response of hauled out ringed seals (*Phoca hispida*) to aircraft
disturbance, 21 Polar Biology 171 (1999).

noise pollution and exhibit strong avoidance behaviors at received seismic airgun levels of 120 dB re 1 μPa to 130 dB re 1 μPa and below.[7] They have also been shown to increase call rates upon detecting airgun pulses at 94 dB, reduce them at 127 dB, and entirely stop calling at 160 dB. Notably, one recent study found that Bowhead whales significantly dropped their calling rates when exposed to sounds of at least 116 dB re 1 μPa.[8] These findings underscore the acute sensitivity of Arctic marine mammals to industrial noise and demonstrate the even relatively low sound levels can significantly alter their behavior. By failing to account for these biologically significant disturbances that can occur at relatively low sound levels, NMFS' analysis likely underestimates the number of takes and does not fully capture the impact of acoustic disturbances on these vulnerable species.

Second, the take estimates from modeling likely underestimate or incorrectly estimate take, and therefore, the negligible impact determination is flawed. For example, NMFS is requiring Narwhal to initiate ice trail construction no later than March 1 to "deter pregnant seals from establishing birth lairs in disturbed areas."[9] However, this measure should not be considered to mitigate harassment but instead should be counted as additional take. Ringed seals build their subnivean lairs in the Colville River Delta, and the proposed activities are planned to occur during the season that female seals will establish and maintain these lairs for pupping. Disturbing this process can lead to lair abandonment, increased pup mortality, and exposure to predators and environmental stressors. The assumption that a ringed seal may be able to relocate to a new location fails to consider the energetic costs as well as the predation risk that these seals face if forced to alter their behaviors. These shortcomings call into question the reliability of the take estimates and the conclusion that the proposed activities will have no more than a negligible impact on species.

Third, NMFS bases its take estimates on assumption of uniform densities within the project area. Density estimates for bearded and spotted seals are derived from Beaufort Sea vessel-based surveys that are not specific to Harrison Bay. Similarly, the estimated density of ringed seals was based on spring aerial surveys covering a broad area that was not specifically limited to Harrison Bay. NMFS fails to discuss seal distribution patterns or localized concentration zones near the project area, therefore underestimating or incorrectly estimating take.

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[7] Miller, G.W., Elliot, R.E., Koski, W.R., Moulton, V.D., and Richardson W.J., Whales, in Richardson, W.J. (ed.), Marine Mammal and Acoustical Monitoring of Western Geophysical's Open-Water Seismic Program in the Alaskan Beaufort Sea, 1998 (1999); Richardson, W.J., Miller, G.W., and Greene Jr., C.R., Displacement of migrating bowhead whales by sounds from seismic surveys in shallow waters of the Beaufort Sea, 106 Journal of the Acoustical Society of America 2281 (1999).

[8] Blackwell, S.B., et al., Effects of airgun sounds on bowhead whale calling rates in the Alaskan Beaufort Sea, 29 Marine Mammal Science E342-65 (2013).

[9] 90 Fed. Reg. 21182 (May 16, 2025).

Fourth, NMFS claims no take via Level A harassment (potential to injure) will occur because of shutdown protocols required before marine mammals enter the Level A zone. This assumes perfect detection, ideal weather, and immediate implementation of shutdown protocols, while failing to account for observer fatigue and poor visibility caused by fog, ice, or glare. It also fails to account for animal behaviors "such as diving and undemonstrative presence at the sea surface" which can also reduce detection probability.[10] Additionally, no monitoring is required at night. The presumption of perfect mitigation effectiveness introduces significant uncertainty to take estimates and potentially underrepresents more serious impacts.

Fifth, NMFS's take estimate fails to account for the cumulative stresses on the species from climate change. For example, losses in sea ice will contract the ranges and have population level impacts to ice seals in the coming years. While all ice seals are threatened by rapid climate change, ringed seals are the most ice-dependent of all ice seals and depend on sea ice and snow cover for essential life functions.[11] Unlike other seals, the ringed seal is able to inhabit and reproduce in landfast ice during the winter and spring breeding season due to its ability to make and maintain breathing holes in thick ice and to excavate subnivean lairs in snowdrifts over breathing holes, which it uses for resting, giving birth, and nursing pups.[12] Without sufficient sea ice and snow cover, ringed seals freeze to death or are eaten by predators.[13] Studies have documented a nearly 100 percent mortality rate when snow cover was insufficient to build snow caves.[14] Changing habitat conditions, including unprecedent reductions in sea ice extent, thickness and duration of seasonal cover have been linked to decreases in ringed seal body condition, pregnancy rate, and pup survival, as well as increases in stress hormones.[15] NMFS must account for how the impacts from climate change will make ice seals more vulnerable to impacts from other stressors, including the auditory and physical impact of the ice road and trail construction in this project.

Sixth, NMFS concludes that no take of marine mammals is anticipated to result due to exploratory drilling during winter in West Harrison Bay. This conclusion is based on the results of a study conducted in West Harrison Bay, however the study cited only accounts for underwater sounds produced from drilling alone, while excluding other noises from the adjacent island. Failing to account for the cumulative auditory impacts from construction, support activity, snow machines, aircrafts, trucks, and other industrial noise results in an underestimation

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[10] Verfuss, U.K., et al. Comparing methods suitable for monitoring marine mammals in low visibility conditions during seismic surveys, 126 Marine Pollution Bulletin 1 (2018).
[11] 77 Fed. Reg. 76,706 (Dec. 28, 2012); Kelly, B.P. et al., Status review of the ringed seal (*Phoca hispida*). NOAA Technical Memorandum NMFS-AFSC-212 (2010).
[12] 77 Fed. Reg. at 76,709.
[13] *Id.*
[14] *Id.*
[15] Hauser D.W. et al., Ringed Seal (Pusa Hispida) breading habitat on the landfast ice in northwest Alaska during spring 1983 and 1984 (2021).

of the take of ringed seals via harassment. Ringed seals are present in the drilling area during the winter months and establish birthing lairs in the landfast ice and the cumulative impact of noise disturbance from the drilling operations and construction of the ice trail and road should be considered by NMFS in order to properly estimate take.

Seventh, NMFS concludes that aircraft and helicopter flights will result in no take of marine mammals yet fails to provide adequate support for this determination. This conclusion is arbitrary, particularly considering a study cited by NMFS which found that "helicopter presence resulted in flushing of most of the hauled out seals during observations."[16] The term harassment is defined by the Marine Mammal Protection Act to include any act that "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."[17] Information provided by NOAA explains that seals haul out "to rest, give birth, and molt" and that "[t]hey come out of the water to get dry [and] wetting them is actually a form of harassment."[18] Therefore, concluding that helicopter presence will result in no take is inaccurate, as studies have shown that such activity causes flushing out of most hauled out seals, indicating a strong potential for harassment.

Eighth, NMFS has failed to consider the potential impacts of the project on the Spectacled Eider, a threatened bird species. The Spectacled Eiders habitat range is within the planned project area and the Beaufort Sea is "an important migration and staging area."[19] Specifically, the Spectacled Eiders breeding range includes the Kogru River, which NMFS proposes to use as a staging area to offload materials from barges along shore to the existing airstrip.[20] Therefore, NMFS had likely underestimated take by failing to consider the potential impacts of the proposed project on the Spectacled Eider.

The Proposed Mitigation Fails to Ensure the Least Practicable Adverse Impact.

First, NMFS's negligible impact determination for all species relies, in large part, on the mitigation measures required under the IHA. However, these mitigation measures rely nearly exclusively on the ability of marine mammal observers to observe marine mammals. But NMFS fails to acknowledge the limitations of visual monitoring. NMFS itself has acknowledged that

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[16] 90 Fed. Reg. 21182 (May 16, 2025) (citing Bradford A.L, Weller D.W. Spotted seal haul-out patterns in a coastal lagoon on Sakhalin Island, Russia (2005).
[17] 16 USC § 1362(18)(A)(ii).
[18] NOAA Fisheries, Fun Facts About Surprising Seals.
[19] U.S. Fish and Wildlife Service, Spectacled Eider (Somateria fischeri) 5-Year Review: Summary and Evaluation (2010); Alaska Department of Fish and Game, Spectacled Eider Range Map.
[20] Bureau of Land Management, Arctic Coastal Plain Spectacled Eider Densities and Locations (2004).

lookouts are not as effective in mitigating acoustic impacts as time-area restrictions.[21] Yet NMFS arbitrarily simply assumes the mitigation measures will be effective. This is especially important, as NMFS has concluded that "ramp-up may occur at times of poor visibility, including nighttime."[22] Courts have held that NMFS may not choose the lesser mitigation option of using marine mammal observers to protect marine mammals from auditory disturbances from seismic airguns and sparkers, "especially knowing that many potential disruptions to marine mammal behavior will be difficult to detect or avoid through lookouts."[23] The same is true here.

Second, the actual effectiveness of using ramp-up procedures as a form of mitigation is unknown. Ramp-up is a proposed method of mitigation which requires gradually increasing sound levels at the start of an activity, thereby giving animals time to vacate the area. However, this approach has several limitations that diminish its effectiveness as a mitigation measure. First, it assumes that animals will detect and respond to the increasing noise in time to avoid harm, but some species, particularly deep-diving cetaceans or seals under ice, may not perceive the sound early enough or may be disoriented rather than repelled by it. Second, there is little information about how animals respond to ramp-up and whether they actually move away from the source. For example, a study of humpback whale groups found that "there was no evidence that the stepped approach of 'ramp-up' resulted in a greater, or more consistent, response compared to the 'constant source' implying that the ramping up of the source did not elicit a stronger avoidance reaction compared to source emitted at a constant level."[24] These limitations underscore the need for more robust pre-activity monitoring and supplementary mitigation strategies which are of greater known effectiveness.

Third, NMFS incorrectly assumes complete mitigation from aircraft noise by maintaining an elevation of 457 meters. But when it is impossible to maintain that height due to environmental conditions, it may not be possible to maintain that degree of separation from all marine mammals. First, the environmental conditions that make flying at 457 meters impossible will likely also make spotting and avoiding marine mammals difficult, and second, because even if visibility allows for spotting marine mammals, aircraft safety may not permit sufficient distance to mitigate harassment. Additionally, planned use of aircrafts is between December and May, coinciding with the winter months when visibility and flying conditions are the worst. Ice seals are sensitive to out of water noise, including hauling out in response to aircraft noise,[25] and NMFS should consider unavoidable harassment from aircraft noise.

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[21] *NRDC v. Pritzker*, 828 F.3d 1125, 1133 (9th Cir. 2016).
[22] 90 Fed. Reg. 21182 (May 16, 2025).
[23] *Conserv. Council for Hawaii*, 97 F. Supp. 3d at 1230.
[24] Dunlop, R.A., et al. Response of humpback whales (Megaptera novaeangliae) to ramp-up of a small experimental air gun array, 103 Marine Pollution Bulletin 72 (2016).
[25] Bradford, A.L., et al. Spotted seal haul-out patterns in a coastal lagoon on Sakhalin Island, Russia, 30 Mammal Study 145 (2005); Born, E.W. et al., Escape response of hauled out ringed seals (*Phoca hispida*) to aircraft disturbance, 21 Polar Biology 171 (1999).

Fourth, there are several additional practicable mitigation measures that NMFS has not considered or proposed. NMFS has made no mention of the use of passive acoustic monitoring (PAMs) as a mitigation strategy to improve detection of marine mammals, particularly when visual detection probability is limited or not possible. PAMs detect an animal's vocalizations using hydrophones (underwater microphones), providing greater certainty than a visual observer of marine mammal presence.[26] In the context of offshore wind development, NOAA has stated that the use of PAM is a valuable tool and "can be used to make real time-decisions like delaying construction or warning vessels to reduce their speed to protect nearby endangered whales and other animals."[27] The same is true for offshore oil and gas exploration activities.

NMFS has also not proposed requiring the use of bubble curtains for noise attenuation. NMFS should require the use of bubble curtains during the shallow hazard surveys to further reduce the noise impacts to ice seals and bowhead whales from the use of the seismic airgun and the sparker. This is especially true because Narwhal plans to conduct the surveys during the open water season when ice seals and bowhead whales are more likely to be in the project area.

NMFS also failed to consider an alternative that would require the use of drones, in addition to protected species observers, to detect the presence of marine mammals. Drones can detect marine mammals when humans observers cannot, particularly in poor visibility conditions, during low-light hours, or when marine mammals are only briefly visible at the surface.[28] Furthermore, NOAA has publicly acknowledged the benefits of drone technology by partnering with a company that is developing imaging technology for drones, which they note "could significantly reduce cost, risk, and disturbance in marine mammal surveys."[29] This collaboration highlights that NOAA is aware of the advantages of incorporating drones into marine mammal monitoring efforts. NMFS's failure to consider these other measures is especially arbitrary considering NMFS has, in a previous IHA, recognized that the primary mitigation measure it relies on—the use of observers—can be ineffective.[30]

Fifth, NMFS has proposed an inadequate zone monitoring duration prior to the initiation of ramp up activities. Under the current proposal, if a marine mammal is observed during the 15-minute

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[26] Verfuss, U.K., et al. Comparing methods suitable for monitoring marine mammals in low visibility conditions during seismic surveys, 126 Marine Pollution Bulletin 1 (2018).
[27] NOAA Fisheries, New Passive Acoustic Monitoring Framework to Help Safeguard Marine Resources During Offshore Wind Development (2021).
[28] *See, e.g.*, Whale and Dolphin Conservation, Can You See the Endangered North Atlantic Right Whale?, https://www.youtube.com/watch?v=opGuDQ2NeOw (Video credit: Dr. Michael Moore and Dr. Carolyn Miller, WHOI, NOAA Permit No. 21371).
[29] NOAA Fisheries, New Drone Technology Could Revolutionize Marine Mammal Monitoring (Feb. 13, 2019).
[30] *See Conservation Council for Hawaii*, 97 F. Supp. 3d at 1230.

pre-start clearance period, ramp-up may not begin until the animal has been seen exiting the zones or until 15 minutes has passed without any further sightings. However, this short monitoring window is insufficient, particularly for species, such as the Bowhead whale, with prolonged dive time or drift diving tendencies (time spent during a dive not moving, suspended in the water column while drifting).[31] Numerous other IHAs for similar projects have required at a minimum 30-minute clearance period for all mysticetes, which includes Bowhead whales.[32] These extended windows increase the likelihood of detecting slow-moving or deep-diving individuals that may remain underwater and undetected for extended periods. By adopting a shorter pre-start monitoring requirement in this case, NMFS departs from established precautionary standards and undercuts its duty to ensure the least practicable adverse impact.

NMFS Cannot Issue Additional IHAs Without a Comprehensive Analysis and Cannot Issue "Renewed" IHAs under the MMPA

NMFS's proposed process does not comport with the plain language of the MMPA. Section 101(a)(D)(i) plainly states that IHAs are valid for periods of not more than one year.[33] Yet here, the agency proposes a one-time, one-year renewal without conducting a comprehensive analysis of the impacts of the take across the additional year.

NMFS is considering its negligible impact determination in isolation based on the take to occur under each individual IHA, rather than the entirety of the take NMFS is proposing to authorize. This is contrary to the conservative, precautionary nature of the MMPA. NMFS should analyze and mitigate the total take it is proposing to authorize across both years; the best way to do so would be via the incidental take regulation process in section 101(a)(5)(A).

NMFS's proposal to "renew" the IHA via an expedited process is also unlawful. The MMPA is clear on the timing of when the agency must publish a proposed authorization—45 days after receipt of an application—and the duration of the public comment period—30 days after publication.[34] The legislative history of the 1972 Act demonstrates that Congress viewed a robust notice and comment process as central to the agency's implementation of the incidental take authorization process. "As approved by the Committee, the [MMPA] involves a number of basic concepts," one of those concepts being that "the public is invited and encouraged to participate

[31] Blackwell S.B., et al. Drift Dives in a Bowhead Whale (Balaena mysticetus) (2022).
[32] *See* 86 Fed. Reg. 30006 (June 4, 2021); *see also* 89 Fed. Reg. 91340 (Nov. 19, 2024); *see also* 90 Fed. Reg. 19090 (May 5, 2025).
[33] 16 U.S.C. § 1371(a)(5)(D)(i).
[34] *Id.* § 1371(a)(5)(D)(iii).

fully in the agency decision-making process."[35] When NMFS adheres to this process, "the public is assured of the right to be informed of actions taken or proposed."[36]

With respect to NMFS' proposal to allow only a 15-day comment period for an application to extend the IHA by another year, the legislative history of the 1994 Amendments clearly demonstrates Congress intended NMFS to provide a full 30-day comment period in this scenario: "[I]n some instances, a request will be made for an authorization identical to one issued the previous year. In such circumstances, the Committee expects the Secretary to act expeditiously in complying with the notice and comment requirements," specifically established by the statute.[37] Notably, NMFS supplies no legal rationale for why it is authorized to issue an identical IHA for a third year while cutting in half the comment period the statute requires. The agency lacks discretionary authority to interpret the statute otherwise, whether by regulation, by policy, or on a permit-by-permit basis as it purports to do here.[38]

Nor has NMFS supplied any explanation for why it might assert that the statutory language of section 101(a)(5)(D)(iii) is ambiguous, such that the agency might appropriately exercise its congressionally-delegated gap-filling authority to set forth a permissible interpretation of the statute that comports with the statute's objectives.[39] Should the agency wish to establish its new IHA renewal process as a reasonable interpretation of an ambiguous statutory provision, it should do so through notice-and-comment rulemaking or comparable process with the appropriate indicia of formality.

In so doing, NMFS must also explain why applicants whose activities may result in the incidental harassment of marine mammals over more than one year should not be required to apply for authorization to do so through the incidental take regulation procedure established by section 101(a)(5)(A)(i), which provides for authorizing incidental take during periods of "*not more than* five consecutive years each."[40] Where Congress established clear and distinct statutory processes for authorizing incidental take via harassment for one-year periods versus periods extending more than one year and up to five years, NMFS must justify how its proposed

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[35] H.R. Rep. No. 92-707, at 4151 (1972), *reprinted in* 1972 U.S.C.C.A.N. 4144, 4151
[36] Id. at 4146.
[37] H.R. Rep. No. 103-439, at 29 (1994).
[38] *See Citizens Coal Council v. Norton*, 330 F.3d 478, 482 (D.C. Cir. 2003) ("If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.").
[39] *See Northpoint Tech. Ltd. v. FCC*, 412 F.3d 145, 151 (D.C. Cir. 2005) (a "'reasonable' explanation of how an agency's interpretation serves the statute's objectives is the stuff of which a 'permissible' construction is made").
[40] 16 U.S.C. § 1371(a)(5)(A)(i) (emphasis added). *See also id.* at § 1371(a)(5)(A)(i)(I) (negligible impact finding must evaluate total of such taking "during each five-year (*or less*) period concerned") (emphasis added).

unlawful hybrid administrative extension process, with a curtailed comment period, is consistent with both statutorily-established processes.

Providing a clear and legally adequate justification for its reauthorization process is especially important considering the burden the foreshortened comment period places on interested members of the public to review not only the original authorization and supporting documents but also the draft monitoring reports, the renewal request, and the proposed renewed authorization and then to formulate comments, all within 15 calendar days. Especially given that NMFS intends the new reauthorization process to become the rule rather than the exception, it is incumbent on the agency to set forth, via proposed regulation or policy document, its rationale for this new process and to allow public comment.

Conclusion

In summary, NFMS should address the concerns described in this letter and require additional mitigation and monitoring for Narwhal's proposed activities in West Harrison Bay. It must also issue incidental take regulations rather than a series of IHAs that seem designed to evade the comprehensive analysis required by law.

Sincerely,

/s Grace Bockman

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