

March 25, 2022

Richard W. Spinrad, Administrator
National Oceanic and Atmospheric Administration
1401 Constitution Avenue NW, Room 5128
Washington, DC 20230
rick.spinrad@noaa.gov

Re: Stellwagen Bank National Marine Sanctuary Draft Management Plan and Draft Environmental Assessment

Dear Administrator Spinrad,

The undersigned organizations and individuals are writing because of our concerns about the Stellwagen Bank National Marine Sanctuary (Sanctuary) Draft Management Plan and its related Draft Environmental Assessment. Given that management of this area involves more than one line agency within NOAA, and potentially other federal agencies as well, we seek clarification of how and when NOAA will take meaningful action to address our concerns.

The Sanctuary is indisputably one of the most biologically diverse and productive areas in the Gulf of Maine. It supports more than 575 species including seabirds, sea turtles, 22 species of marine mammals, and numerous fish species. Because ultimately the sanctuary management plan will serve as the overarching framework for sanctuary management for the next five to ten years, it is vital that it effectively develops and implements a strategy to protect sanctuary resources.

Unfortunately, the current Draft Management Plan (Draft Plan)¹ does not result in protection of those resources because it fails to address the overwhelming scientific evidence of worsening conditions and threats to important sanctuary resources documented in NOAA's 2020 Condition Report² and 2021 State of the Science Report.³ Notably, the Draft Plan proposes *no* management actions and *no* additions or modifications of the current sanctuary regulations to address those declines. The National Marine Sanctuaries Act and the best available scientific information

¹ Stellwagen Bank National Marine Sanctuary Draft Management Plan and Environmental Assessment (“Draft Plan”), available at: <https://nmsstellwagen.blob.core.windows.net/stellwagen-prod/media/docs/2021-draft-management-plan-and-environmental-assessment.pdf>. The current Management Plan was adopted in 2010 and is available at: <https://stellwagen.noaa.gov/management/fmp/fmp2010.html>

² Office of National Marine Sanctuaries. 2020. 2020 Stellwagen Bank National Marine Sanctuary Condition Report: Findings of Status and Trends for 2007-2018. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries, Silver Spring, MD. 263 pp. The “2020 Condition Report” is available at: <https://sanctuaries.noaa.gov/science/condition/sbnms/>.

³ Silva, T. L. (2021). State of the science report: An addendum to the Stellwagen Bank National Marine Sanctuary 2020 Condition Report. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries, 20 pp. This “State of the Science” addendum is available at: <https://nmssanctuaries.blob.core.windows.net/sanctuaries-prod/media/docs/20210520-addendum-report.pdf>.

demand a more effective course of action to protect and recover sanctuary resources given their depleted and degraded condition. By statute and tradition, NOAA is tasked with using sound science to make management decisions, and we recommend that NOAA continue to apply this commitment to future management of the Sanctuary.

We understand NOAA will need to consult within and outside the agency on these issues and want to understand its process for doing so and how it plans to address the challenges through changes to the management plan and regulatory actions. Your leadership will be essential in this matter since the management actions that are needed affect more than one line office within NOAA and may also involve other federal agencies. It is worth noting that the Sanctuary regulations have not been updated for almost 30 years.⁴ The time has come to do so.

In addition, as head of one of the principal agencies charged with implementing the America the Beautiful initiative and 30x30, you have an obligation to ensure that the National Marine Sanctuaries Program, which was specifically cited in the America the Beautiful Report,⁵ effectively restores degraded ecosystems and advances conservation in America. We look forward to working with you on this.

Threats to Sanctuary Resources and Needed Actions

The 2020 Condition Report documents widespread depletion of the Sanctuary's living marine resources, benthic and acoustic habitat degradation, degradation of maritime heritage resources, and a compromised ability of the Sanctuary to provide food for people. Some of New England's most iconic species including North Atlantic right whales, humpback whales and Atlantic cod are in poor or fair/poor condition, and in some cases their condition is worsening. There has been "measurable degradation of habitat quality" over the past decade due primarily to the impacts of commercial fishing gear.⁶ The Report rates the level of human activities "that may adversely influence living resources" as Fair/Poor stating that "fixed and mobile commercial fishing methods, shipping and recreational activities such as fishing and whale watching are of particular concern, as they can cause negative impacts on living resources."⁷ Increasing levels of ocean noise that "interrupt behavior and communication for many species" is also contributing to the degradation of habitat quality.⁸

We summarize the findings below, along with our recommended actions. Each of these recommendations was contained in comments that the undersigned groups and individuals submitted during the public review process on the Draft Plan and Draft Environmental Assessment.

⁴ Draft Plan, p. 12.

⁵ Conserving and Restoring America the Beautiful (2021) Available at: <https://www.doi.gov/sites/doi.gov/files/report-conserving-and-restoring-america-the-beautiful-2021.pdf>.

⁶ Condition Report, pp. 10-11.

⁷ Condition Report, p.18.

⁸ Draft Plan, p. 8.

1. Noise levels in the Sanctuary are significant, increasing, and degrading acoustic habitat within the sanctuary and management actions should be taken to reduce those noise levels.

There is a large body of scientific literature demonstrating the wide range of negative physiological and behavioral impacts that anthropogenic noise, including noise generated by vessels, has on almost all marine life, including plants,⁹ zooplankton, a range of invertebrate and fish species—several of commercial importance, marine mammals,¹⁰ and even diving birds.¹¹

As noted in the Draft Plan,¹² noise levels within the Sanctuary are significant and increasing. A Story Map recently released by the NOAA SanctSound Program¹³ compares acoustic habitat and vessel noise levels across seven National Marine Sanctuaries and one Marine National Monument. The Story Map illustrates how vessel noise levels in SBNMS are among the loudest observed across all the sanctuaries within the SanctSound program and, crucially, that *SBNMS experiences the highest percentage of hours of vessel noise of any sanctuary (approximately 90 percent of the time at listening site #3)*.¹⁴ Thus, noise in SBNMS is loud and almost constant.

A recent scientific study revealed that baleen whale species have lost *between 50-80 percent* of their communication space (depending on call-type) within the sanctuary due to vessel noise.¹⁵ The substantial loss of communication space in such a biologically important area is of major concern for fin, minke, humpback, and the critically endangered North Atlantic right whale and justifies protective action. The impacts are particularly concerning for humpback whales and critically endangered North Atlantic right whales that already face significant threats from entanglement and vessel strikes. Communication space is also reduced for Atlantic cod and haddock,¹⁶ and low frequency sound from large vessels has been shown to negatively affect reproductive success and survival.¹⁷ These findings are concerning since the Sanctuary is an important winter spawning ground for Gulf of Maine cod.

To address these impacts, recommended measures include:

⁹ Solé, M., et al. (2021). “Seagrass *Posidonia* is impaired by human-generated noise.” *Communications Biology*, vol. 4, 1-11.

¹⁰ See, e.g., Duarte, C.M., et al. (2021). “The soundscape of the Anthropocene ocean.” *Science*, vol. 371, eaba4658.

¹¹ Sørensen, K., et al. (2020). “Gentoo penguins (*Pygoscelis papua*) react to underwater sounds.” *Royal Society open science*, vol. 7, 191988.

¹² Draft Plan, p. 8.

¹³ NOAA SanctSound, “Listen Up! Vessel Traffic in U.A. National Marine Sanctuaries.” Available at: <https://storymaps.arcgis.com/stories/8207c2b5baf04408be8e508b217d364b>

¹⁴ *Id.*, figure describing “Variability in vessel noise influence across sanctuary listening sites.”

¹⁵ Cholewiak, D., et al. (2018). “Communicating amidst the noise: modeling the aggregate influence of ambient and vessel noise on baleen whale communication space in a national marine sanctuary.” *Endangered Species Research*, vol. 36, 59-75.

¹⁶ Stanley, J.A., et al. (2017). “Underwater sound from vessel traffic reduces the effective communication range in Atlantic cod and haddock.” *Scientific Reports*, vol. 7, 1-12.

¹⁷ Nedelec, S.L., et al. (2015). “Impacts of regular and random noise on the behaviour, growth and development of larval Atlantic cod (*Gadus morhua*).” *Proceedings of the Royal Society B: Biological Sciences*, vol. 282, 20151943; Soudijn, F.H., et al. (2020). “Population-level effects of acoustic disturbance in Atlantic cod: a size-structured analysis based on energy budgets.” *Proceedings of the Royal Society B*, vol. 287, 20200490.

- (i) development of sector-specific noise management plans, in partnership with private sector stakeholders; and
- (ii) within 12 months, noise mitigation measures to be implemented by the Sanctuary to improve the Sanctuary's acoustic habitat.

Specifically, our organizations seek clarity on how NOAA plans to move forward in the management plan and subsequent rulemakings to address the significant noise impacts in the Sanctuary. Implementing noise mitigation measures would likely involve NOAA Fisheries in addition to the Office of National Marine Sanctuaries, as well as other entities such as the U.S. Coast Guard or the International Maritime Organization. **Can you please share what line offices have the obligation/authority to address the significant degradation of the soundscape in the Sanctuary, and where there is overlapping jurisdiction, which line office will lead?** NOAA neglected to act on the best available scientific information on sound in the Draft Plan and we want to ensure a process leading to effective mitigation moving forward.

- 2. Large Whales, including Humpbacks, face considerable risk of vessel strike in the Sanctuary and vessel speed restrictions are the best way to avert such damage.

Death from collisions has been identified as one of the top human threats to large whale populations globally.¹⁸ As the Draft Plan describes, large whales, and particularly humpback whales, which have recently been going through an unexplained mortality event, face considerable risk of vessel strike within SBNMS.

The science is unequivocal that slowing vessels to 10 knots or less is the most effective way to reduce the incidence and severity of vessel strikes on large whales.¹⁹ A portion of the Sanctuary overlaps with a federal Seasonal Management Area with required vessel slowdowns for vessels greater than 20m (65 feet), designed to protect North Atlantic right whales. In addition, voluntary vessel slowdowns for right whales are occasionally in place.²⁰ However, NOAA recently released a report describing the inadequacy of these measures to protect North Atlantic right whales, the need to regulate smaller vessels, and the need to expand the protections geographically.²¹ In addition, measures designed for right whales only offer limited protection for humpback whales and other large whale species meaning that additional management measures are required.

¹⁸*Id.*

¹⁹ Conn, P. B., and G. K. Silber (2013). "Vessel speed restrictions reduce risk of collision-related mortality for North Atlantic right whales." *Ecosphere*, vol. 4, 1-16; Kelley, D.E., et al., *supra*.

²⁰ NOAA Fisheries, "Reducing vessel strikes to North Atlantic right whales." Available at: <https://www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-vessel-strikes-north-atlantic-right-whales>.

²¹ NOAA Fisheries Office of Protected Resources (June 2020). "North Atlantic right whale (*Eubalaena glacialis*) Vessel Speed Rule Assessment." https://media.fisheries.noaa.gov/2021-01/FINAL_NARW_Vessel_Speed_Rule_Report_Jun_2020.pdf?null.

Current slowdown requirements and surveillance and enforcement of existing slowdown measures in the Sanctuary do not effectively protect humpbacks or right whales from vessel-related injuries. To address the threats of ship strikes on large whales in SBNMS, recommended measures include:

- (i) A requirement that all vessels capable of seriously injuring or killing a large whale operate within or transit through the Sanctuary at speeds of 10 knots or less to reduce the incidence and severity of vessel strikes.

Specifically, our organizations seek clarity on which line office has the obligation/authority to lead on addressing this problem and look forward to hearing from you on how NOAA plans to address this important issue in the management plan and through the regulatory process.

3. There has been measurable degradation of habitat quality, significant resource depletion, and maritime heritage resources degradation in the Sanctuary due to the direct effects of fishing, and new fishing restrictions are necessary to stop the degradation of habitat and restore sanctuary resources.

The Condition Report documents benthic habitat and maritime heritage degradation in the Sanctuary and finds that these impacts are due primarily to the impacts of commercial fishing gear. It states there has been “measurable degradation of the habitat quality over the past ten years, primarily due to the direct impacts of bottom contact gear used in commercial fishing which occurs extensively throughout the SNNMS.”²² It also states that maritime heritage resources were found to be subject to “severe, persistent, and widespread impacts from contact with fishing gear,”²³ which “has affected nearly every maritime heritage resource in the Sanctuary.”²⁴ Despite these findings, the Draft Plan contains no management actions or regulatory changes to protect the benthic habitat or maritime heritage resources.

The Gulf of Maine cod population, which includes cod that utilize the Sanctuary (including nursery habitat and reproduction), is estimated to be at only 5 percent of what scientists consider to be a healthy level of abundance.²⁵ The Condition Report also details the decline of overfished Atlantic cod in the Sanctuary and elsewhere since the last condition report in 2007. The Condition Report finds that the remaining population of Gulf of Maine cod in New England is “centered on, or contracted into” the Sanctuary, where they feed on important prey species such as sand lance and Atlantic herring, among other things. In fact, according to the Condition Report, the Western Gulf of Maine, including the Sanctuary, is “possibly the last area with

²² Condition Report, pp. 10-11.

²³ Condition Report, p. 19.

²⁴ Condition Report, p. 85.

²⁵ NOAA Fisheries, Northeast Fisheries Science Center (October 2021). Gulf of Maine Atlantic Cod 2021 Update Assessment Report. Available at: https://apps-nefsc.fisheries.noaa.gov/saw/sasi/uploads/2021_COD_GOM_ASSESSMENT_v3.pdf.

consistent aggregations of cod in the Gulf of Maine stock.”²⁶ Further, the Report finds that these “hyper-aggregations” of cod make the species “vulnerable to overexploitation.”²⁷ Despite being in poor and worsening condition, Atlantic cod remains the most sought-after fish inside the Sanctuary.²⁸ The Sanctuary is also an important winter spawning ground for Atlantic cod. According to the State of the Science Report, scientists have identified the northwest corner of Stellwagen Bank to be a cod spawning hotspot and have recommended that the area be included in the seasonal cod spawning closures.

The Gulf of Maine (including Stellwagen Bank) is warming faster than 96 percent of the global ocean,²⁹ exacerbating the effects of other stressors on Sanctuary resources. For example, the impacts of climate change on important prey species like sand lance have the potential to drive cascading ecosystem effects and impact abundance, distribution, and the health of top predators.³⁰ As the Condition Report notes, sand lance are a key component of the SBNMS food web³¹ and an important prey species for numerous species including humpback whales, dolphins and porpoises, great shearwaters, and cod. Climate change has also significantly reduced the supply of *Calanus finmarchicus* – a high-fat, rice sized crustacean - primary prey for North Atlantic right whales and Atlantic herring in the Northeast.³²

In light of the above, it is imperative that the Sanctuary and its jurisdictional partners immediately improve its management of fish and fish habitat to build ecological resiliency. Recommended measures include:

- (i) A prohibition on all directed fishing for Atlantic cod within the Sanctuary. Any recreational fishing allowed would require the release of all Atlantic cod and utilize best practices to minimize mortality.
- (ii) Expanded seasonal spawning protections for cod, in both space and time, specifically in the northwestern corner of Stellwagen Bank as well as throughout the Sanctuary.
- (iii) Appropriate area-based protections to the southern portion of the sanctuary because of its importance for sand lance, a critical prey species, and for humpback whales which feed on the sand lance.
- (iv) The protection of unmanaged forage species, including sand lance and *Calanus finmarchicus*, by seeking Council adoption of: (1) a fishery management plan specifically developed to conserve and manage sand lance and other unmanaged species in the region; (2) an amendment to the Northeast Multispecies Fisheries

²⁶ Condition Report, p. 14.

²⁷ Id.

²⁸ Id., p. 148.

²⁹ See <https://www.gmri.org/stories/gulf-of-maine-warming-update-summer-2021/#:~:text=Over%20a%20longer%20reference%20period,96.2%25%20of%20the%20world's%20oceans.>

³⁰ Draft Plan, p. 108.

³¹ State of Science report, p. 3.

³² Nicholas Record, Jeffrey Runge, Daniel Pendleton, William Balch, Kimberley Davies, Andrew Pershing, Catherine Johnson, Karen Stamieszkin, Rubao Ji, Zhixuan Feng, Scott Kraus, Robert Kenney, Christy Hudak, Charles Mayo, Changsheng Chen, Joseph Salisbury, Cameron Thompson. Rapid Climate-Driven Circulation Changes Threaten Conservation of Endangered North Atlantic Right Whales. *Oceanography*, 2019; 32 (2) DOI: 10.5670/oceanog.2019.201.

- Management Plan/other FMPs that adds these species as ecosystem component species and prohibits the development of new fisheries for them.
- (v) Establishment of a fully protected research control area within the Designated Habitat Research Area and implementation of a research plan to assess (1) fishing gear impacts on benthic habitats; (2) habitat recovery; (3) the effects of natural vs. anthropogenic disturbances on fish habitats; and (4) the effects of fishing and habitat type on the productivity of managed resources.
 - (vi) A management plan to effectively protect maritime heritage resources in the Sanctuary from the impacts of fishing gear.

Specifically, given the varying obligations/authorities of the different line offices within NOAA, as well as the New England Fishery Management Council, we would appreciate clarity on leadership and accountability for results in the development and adoption of specific Sanctuary management actions and subsequent rulemaking necessary to address the known degradation of habitat and maritime heritage resources, the depletion of Atlantic cod and other living marine resources, and the public process contemplated.

Conclusion

The Secretary of Commerce is required to revise the sanctuary management plan and regulations as necessary to fulfill the purposes and policies of the Act.³³ A central purpose and policy of the National Marine Sanctuaries Act is “to maintain the natural biological communities in the national marine sanctuaries, and to protect and, where appropriate, restore and enhance natural habitats, populations, and ecological processes.”³⁴ Indeed, where there is a conflict with other purposes, the Act makes clear that the primary objective of the Act is resource protection.³⁵

Despite these requirements and NOAA’s findings that the best scientific information available demonstrates worsening conditions and increasing threats to important Sanctuary resources, **the Draft Plan does not propose any modifications to the current regulatory regime.**³⁶ In light of the Biden-Harris Administration’s goals to preserve more of our nation’s exceptional environmental and cultural resources, it is essential that NOAA halt the declines in this ecologically important at-risk Sanctuary. To do anything else would neglect the generational obligation NOAA has to Americans, who should have the opportunity to appreciate Stellwagen’s beauty and national significance for decades to come.

We kindly request a written response to our specific questions and would welcome the opportunity to meet with you to hear your plan.

Respectfully,

³³ 16 U.S.C. § 1434(e).

³⁴ 16 U.S.C. § 1431(b)(3).

³⁵ 16 U.S.C. § 1431(b)(6).

³⁶ Draft Plan, p. 12.

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