

**North Atlantic Right Whale Recovery Plan
Northeast US Implementation Team
February 12-14, 2024**

Webinar

Summary

KEY OUTCOMES MEMORANDUM

I. Overview

The North Atlantic Right Whale Recovery Plan Northeast U.S. Implementation Team (NEIT) conducted a three-day webinar on February 12-14, 2024. The agenda can be found in Appendix A, and the NEIT deliberations focused on the following primary objectives:

- Share updates on North Atlantic right whale status and recovery
- Share and review updates from the NARWC
- Review NEIT activities status and discuss follow-ups
- Review NEIT Priorities list and identify any next steps

This Key Outcomes Memorandum summarizes the primary results of the NEIT deliberations from the discussions noted above. In general, the synthesis integrates the main themes discussed at the meeting and are presented in five main sections: Overview, Participants, Meeting Materials, Key Outcomes, and Next Steps. The Key Outcomes section is further segmented into the following sections:

- Welcome and Meeting Kick Off. This section provides a brief overview of the meeting purpose and agenda review.
- NEIT Business. This section includes the NEIT process and meeting planning.
- Focused NEIT discussions. This section includes focused discussions, including any resulting in consensus actions and/or recommendations.
- Consensus Actions. This section summarizes any consensus actions to be taken by the Team.
- Consensus Recommendations. This section summarizes any consensus recommendations of the Team.
- Other. This section summarizes other topics discussed during the meeting as applicable.

II. Participants

The NEIT meeting was attended by all 14 Team Members: Erin Summers (Team Lead), Katie Moore, Bob Glenn, Mark Baumgartner, William McLellan, Desray Reeb, Roxanne Gillett, Cindy Driscoll, Joel Bell, Meghan Rickard, Danielle Cholewiak, Dave Wiley, Elise Lacaille, and Cori Rose.

Diane Borggaard (NEIT Liaison), Corie Grewal (NEIT support), Colleen Coogan, and Kara Shervanick (Southeast Implementation Team (SEIT) Liaison) represented NOAA Fisheries (NMFS). Other NMFS staff attended specific sessions to give presentations to the Team and/or answer questions on agency programs.

The Key Outcomes Memorandum was distributed to the entire Team for feedback.

III. Meeting Materials

The following materials were provided to NEIT members via email prior to or at the meeting:

- Draft meeting agenda
- July 2023 Meeting Summary
- NEIT Activities Status Table
- NEIT Priorities (2019-2023) Tracker
- NEIT Large Whale Priority Overlap table
- NEIT PVA Next Steps Input document
- Offshore Wind Considerations for the NEIT document
- Final NEIT Vessel Strike and Monitoring Recommendations 2021 Letter

IV. Key Outcomes

Below is a summary of the main topics and items discussed during the three-day webinar. This summary is not intended to be a meeting transcript and is not necessarily in chronological order of discussions. Rather, it provides an overview of the main topics covered, the primary points and options raised in the discussions, and areas of full or emerging consensus.

A. Welcome and Introductions

The meeting began with a welcome and brief introduction from the Team Lead, E. Summers, and the NEIT liaison, D. Borggaard. E. Summers reviewed the Team purpose and draft agenda.

B. NEIT Business

D. Borggaard relayed general updates from NMFS, including GARFO, beginning with an update on the draft North Atlantic Right Whale Emergency Response Plan, which is still under development but likely to have a larger update for the Team at the summer meeting. The provided updates included information to keep the NEIT informed of activities that the Team expressed interest in. This included updates on efforts underway such as ongoing Atlantic Large Whale Take Reduction Plan (ALWTRP) efforts, [regional climate research](#) which includes North Atlantic right whales, and SERO updates from K. Shervanick. D.

Borggaard noted that many NMFS staff contributed to the updates and NMFS would continue to keep the NEIT informed of these efforts and any future outcomes. Michael Henry (Assistant Director) and James Cassin (Deputy Special Agent in Charge) from the Office of Law Enforcement (OLE) Northeast Enforcement Division and Mendy Garron (OLE Liaison for GARFO Protected Resources Division) joined the meeting to provide updates on North Atlantic right whale enforcement efforts, including vessel speed operations and closed mortality investigations in the region. D. Wiley noted that the Stellwagen Bank National Marine Sanctuary was experimenting with sending real-time messages about North Atlantic right whales to mariners using AIS, and M. Henry was very interested about connecting with him to discuss the operation further. Eric Patterson (Cetacean and Pinniped Conservation Lead, Office of Protected Resources) joined the meeting to provide the Team with a budget update, including a review of Fiscal Year 2023 funding and an early look at potential Fiscal Year 2024 funding.

D. Cholewiak provided various updates from the Northeast Fisheries Science Center (NEFSC). NEFSC updates included information on North Atlantic right whale survey efforts and NMFS' development of a five-year health assessment strategy. D. Cholewiak also addressed prior NEIT recommendations that the NEFSC has since advanced, including work done to further the NEIT recommendation from the July 2023 meeting which requested that North Atlantic right whale species experts review any climate and ecosystem documents produced by the NEFSC that include information on North Atlantic right whales to ensure accuracy and consistency.

In addition to the NMFS updates on NARW, W. McLellan provided a detailed update on known NARW mortalities since the most previous NEIT meeting, including an update on the serious injury to the 2024 calf of Juno and an overview of the necropsy conducted on North Atlantic right whale #5120, which was found stranded with an entanglement on Martha's Vineyard on January 28, 2024. He also noted the mortality for North Atlantic right whale #3343 and that after an extensive investigation OLE did not find a vessel associated with this incident. W. McLellan noted that the North Atlantic right whale was struck by a vessel inside of Chesapeake Bay but outside of the Chesapeake Bay Seasonal Management Area (SMA) based on an NARW UME expert assessment. He hypothesized that vessels may be speeding up as they exit the SMA to enter the Bay, which may cause the risk of strikes to increase just inside the mouth of the Bay. Anecdotally, he noted that a lot of humpback whales are found struck in that area and that it may be interesting to look into this issue further. He asked that data be considered to determine if vessels speed up exiting SMAs and entering large bays (i.e., Chesapeake and Delaware Bays).

A number of team members provided updates throughout the meeting depending on the agenda item and some follow-ups were discussed. For example, M. Rickard and B. Glenn

will coordinate with the state of Rhode Island on aerial and acoustic monitoring in the area to the south of the Islands south of Cape Cod and west of the Long Island Sound).

Additional NEIT business consisted of planning the summer NEIT meeting as well as upcoming webinars and events. The summer NEIT meeting will be planned as an in-person meeting. E. Summers will be in touch with the Team to determine meeting dates. The Team discussed meeting location options and possible agenda topics, including a presentation from M. Baumgartner regarding offshore wind monitoring strategies, another discussion on monitoring, and continued tracking/discussion of NEIT priorities based on the status of the Vessel Speed Rule and Tagging Workshop Summary Report.

C. Focused Discussions

NEIT Priorities

D. Borggaard provided the Team with a refresher on where they were in terms of progress on priority development. The Team underwent a priority development process in 2018 and developed a list of priorities for the five year period between 2019 and 2023. This included a set of nine “top” priorities¹, as well as several other priorities that the Team deemed important and continued to track progress on over the five year period (See Appendix B for the list of top nine NEIT priorities and Appendix C in the [March 2019 Meeting Summary](#) for the full list of Team priorities including sources such as North Atlantic Right Whale Recovery Plan). At the [July 2022 Meeting](#), the Team revisited these priorities and provided progress updates on each individual priority. During that discussion, the Team noted that several priorities in the top nine had been addressed with recommendations to GARFO, such as the recommendations addressing regional vessel strike risk reduction and monitoring efforts provided in 2021. The Team decided to elevate several priorities from the full list of priorities, including understanding emerging industries such as offshore wind and aquaculture development and North Atlantic right whale health assessment at that time.

During this meeting, the NEIT went through all top nine priorities to consider their status and discuss whether more NEIT discussion/effort was needed. Members of the Team noted that several of the top nine priorities that they had provided recommendations on regarding vessel strike risk reduction were still unaddressed by NMFS pending the release of a Final Rule to follow the [Proposed Rule to address vessel strike risk in 2022](#). D. Borggaard noted that when the Final Rule is released, Dr. Caroline Good (Office of Protected Resources) has agreed to provide the Team with an overview of the rule and answer any questions the Team may have. K. Moore proposed that the Team renew the 2019-2023 priorities for two additional years, through 2025, to provide time for the regulatory process

¹ These nine priority action items were developed by merging the top six identified for NEIT coordination with the top six for recovery at large in the Northeast US., and combines those that received top priority for both categories.

and other efforts to catch up with the Team's recommendations and determine if next steps on any of the top priorities are needed. E. Summers noted that some of the other priorities on the list were still underway and would likely be addressed this year, so an extension would be warranted. The Team went through each of the top nine priorities and provided updates on progress. (Note: The NEIT acknowledged that ongoing efforts to address commercial fishing interactions are a priority and are being addressed through the ALWTRT.)

NEIT Priority: Identify where are the whales, especially reproductive females. Consider prey modeling studies.

The Team discussed advancements in monitoring efforts, including increased monitoring efforts by several partner state agencies (for more information, see the section on the Team's Monitoring Discussion). Team members also noted that NMFS has increased regional monitoring efforts and coordination in recent years, including efforts by the NEFSC Passive Acoustics team, new survey effort in the Gulf of Maine, and the recent Aerial Survey Workshop. Overall, the Team agreed that much work is being done on the monitoring front to identify where the whales are.

The Team also briefly discussed tagging. D. Cholewiak noted that tags for North Atlantic right whales have been discussed in other settings (i.e., the recent Marine Mammal Commission (MMC) Tagging Workshop). The Team did include a recommendation about LIMPET tags for North Atlantic right whales in their 2021 Monitoring Letter, but has not discussed other tagging in depth. Several Team members were interested in reading the Tagging Workshop Report when published. The Team determined that they would digest the Report and consider if there was anything further for them to provide expertise on regarding tagging.

NEIT Priority: Modeling studies (present conditions and projected into the future) on (1) spatial and temporal movement of whales and copepods, (2) whale habitat and distribution, and (3) climate models.

Team members stated that there are lots of promising modeling efforts currently underway (e.g., the DST, PVA, and North Atlantic right whale density surface modeling that feeds into both) that are led or supported by NMFS. The Team continues to provide feedback for the PVA version 2.0 through the PET Subgroup, and thus determined that this priority continues to be underway.

NEIT Priority: Define existing fixed gear fishing locations with high degree of specificity.

E. Summers touched on updates to the DST and provided an example of new vessel and harvester reporting requirements, noting that work continues on this priority with the Atlantic Large Whale Take Reduction Team.

NEIT Priority: Use necropsies to determine the cause of death, and use such data to reduce mortalities.

W. McLellan noted that the Unusual Mortality Event for North Atlantic right whales remains open and provides support for necropsy events. C. Driscoll observed that there may be personnel and resource limitations if several North Atlantic right whale necropsies were required simultaneously. D. Borggaard noted that she would follow up with M. Garron for consideration in the North Atlantic right whale Emergency Response Plan under development at GARFO.

NEIT Priorities: Notify individual ships directly when their course is likely to bring them to or near a location where a whale was sighted by the aircraft; and Assess the effectiveness of ship strike measures and adjust, as necessary.

These priorities were discussed together. Team members pointed out that it is challenging to continue any discussions on vessel strike related topics without a Final Vessel Speed Rule. Team members also noted that the Final Vessel Speed Rule may provide a solution for situations where there are large aggregations near vessels if SMAs are expanded as in the Proposed Rule. K. Moore brought up D. Wiley's AIS vessel messaging experiment and noted that it may be a helpful tool from the Coast Guard's standpoint. The Team may be interested in considering and/or learning about this technology in the future as a management tool and will continue to keep track of it. GARFO reminded the NEIT about the March 5-7, 2024, [North Atlantic Right Whale Vessel Strike Risk Reduction Technology Workshop](#) that NMFS was convening in Arlington, VA and virtually.

NEIT Priority: NMFS should develop a long-term, cross-regional plan for monitoring right whale population trends and habitat use.

The Team noted that they have already sent GARFO recommendations on monitoring and have provided the PET Subgroup with feedback on the PVA. As noted further below as well, at the next meeting, the team asked to review the Monitoring Recommendations provided to GARFO in 2021 and discuss each recommendation to determine if the region has furthered it or if more work is needed from the Team to provide updated recommendations.

NEIT Priorities: Reduce or eliminate vessel collisions with right whales. Assess the potential need for modified or additional regulatory mechanisms. Compare recent mortality events with spatial gaps between management areas; and Reduce or eliminate vessel collisions with right whales. Assess traffic patterns and evaluate compliance with existing regulations.

These priorities were discussed together. Team members pointed out that it is challenging to continue any discussions on vessel strike related topics without a Final Speed Rule.

K. Moore brought up the recent Coast Guard [Notice of Proposed Rulemaking for the Atlantic Shipping Safety Fairways](#) for individual members to provide comment. D. Borggaard will coordinate with C. Good and others in NMFS; if there is need for further NEIT discussions, she will follow-up prior to the end of the comment period in April.

Other Priorities:

The Team noted that they had elevated a few other priorities, such as North Atlantic right whale health assessment practices including funding mortality investigations, and emerging risks such as aquaculture and offshore wind development. They provided recommendations on health assessment, including disease and contaminant testing at the [July 2022 Meeting](#). They determined that they feel updated on aquaculture development to reduce impacts for large whales after the presentations provided at the [July 2023 Meeting](#) and continued on to discuss wind development later in the meeting.

PVA Next Steps: Continued Discussions

In October 2023, the Implementation Team's Population Evaluation Tool (PET) Subgroup [released a Population Viability Analysis \(PVA\)](#) for North Atlantic right whales to help provide an understanding of how the population will change over 100 years if threats are mitigated. The Team received updates on the PET Subgroup's progress in the years since the Subgroup was convened, including an overview of the PVA with time for questions on the release date in October 2023 for both the NEIT and SEIT. In December 2023, the Team convened for a webinar to provide feedback to the PET Subgroup on potential next steps for the PVA. The Team continued to provide feedback via a "wish list" document of potential next steps for the Subgroup after that webinar, and during this meeting they revisited that document with representatives from the PET Subgroup. The Team brought up several individual ideas for the PET Subgroup to consider (e.g., including data beyond 2019, consider offshore wind scenarios). The PET Subgroup representatives noted these ideas could be considered in the future as the model continues to be developed.

Monitoring Discussion

D. Cholewiak provided a summary of the recent Northeast Region Aerial Survey Workshop held at the NEFSC. The NEFSC hopes to hold this workshop annually and noted that many partner organizations were in attendance, including representatives from several states, research groups, and academic partners. A report will be generated to summarize the workshop. Several Team members attended the workshop and provided feedback on their experience, with general sentiment being that it was beneficial to have the data collectors and modelers in the same room to coordinate what kind of data is necessary for management uses. Team members from state agencies provided updates on their monitoring schemes, many of which have been increased with Atlantic States Marine

Fisheries Commission funding. These included increased PAM arrays and aerial surveys in Maine and Massachusetts and new aerial surveys in New York.

The Team also returned to their Priority discussion and determined that it would be helpful to go through the Monitoring Recommendations provided to GARFO in 2021 and discuss each recommendation to determine if the region has furthered it or if more work is needed from the Team to provide updated recommendations. E. Summers requested that this exercise be added to the summer meeting agenda.

Wind Recap and Discussion

Between full Team meetings, the NEIT has worked to continue to understand the potential impacts of offshore wind development on North Atlantic right whales. They held two previous webinars to discuss the process and propose potential topics for more discussion, including one held with Jaclyn Daly (Office of Protected Resources) to discuss the Incidental Take Authorization process and current updates for wind energy projects. Additionally, the [BOEM and NOAA Fisheries North Atlantic Right Whale and Offshore Wind Strategy](#) was recently released, which the Team had seen previously when it was released in draft form for public comment. The Strategy is intended to be a “living” document that will be regularly evaluated and updated, and the NEIT is listed as one of the key partners in the Strategy. Thus, prior to the meeting, GARFO provided some initial excerpts with questions for the NEIT to consider for the NEIT’s forward looking consideration if they chose to continue to discuss OSW and seek to develop a consensus recommendation to GARFO.

The Team went through the list and discussed potential ideas to further the Strategy, including using the PVA to examine the effect of offshore wind development on North Atlantic right whales, consideration of acceptable thresholds for false negative and false positive events during monitoring to support effective clearance and shutdowns during pile driving construction, and a discussion of development in Critical Habitat. The Team determined that they were interested in NMFS considering vessel strike risk from offshore wind and other offshore wind impacts as part of the PVA, if possible. M. Baumgartner offered to present his research on decision making using Passive Acoustic Monitoring (PAM) systems to reliably detect North Atlantic right whales for offshore wind projects at the next Team meeting. The Team may then consider his work and determine whether it is something they can provide comments and/or recommendations to NMFS GARFO on in the context of the GARFO document provided. During their discussion on Critical Habitat, the Team recommended NMFS GARFO should continue requiring monitoring of ongoing offshore wind development projects and consideration of both short and long term research questions that can be answered using monitoring tools. Some members thought this would help resolve some uncertainties over time, but noted that avoiding development in hot spots for North Atlantic right whales and copepods as well as deep basins (e.g., deep

basins such as George's and Wilkinson Basin) are important in the meantime. Monitoring before turbines are put in was also noted as important in all habitats.

D. Reeb also provided an update from BOEM on ongoing offshore wind development projects. She also provided an overview of studies underway exploring dimethyl sulfide, zooplankton, and a vessel strike model.

#5120 Mortality Case

On Day 3 of the meeting, [NMFS released information](#) pertaining to the #5120 entanglement mortality case. Gear specialists examined the gear found on the whale and concluded that the rope is consistent with the rope used in Maine state water trap/pot buoy lines. David Morin (GARFO Large Whale Entanglement Coordinator) joined the meeting to provide the Team with an overview and answer a few questions from Team members. D. Borggaard noted that the NEIT will be apprised of any future developments in the case.

Post-NARWC Team Discussion

M. Baumgartner led Team discussion on the NARWC meeting held on October 24-25, 2023. He noted some discussion highlights, remarked that the hybrid format seemed to continue to work well, and was interested to hear what NEIT members thought of the meeting. Based on the 2021 NEIT next step to cross-compare NEIT priorities to new information presented at the NARWC, the Team considered the research presented at the NARWC to determine if there was anything that should be considered in the context of any modifications, etc. to NEIT priorities. The Team noted continued interest in the development of satellite detection for large whales, but did not find any applicable links to NEIT priorities until further research and development takes place.

D. Consensus Actions

- The Team will renew the 2018-2023 NEIT priority list for 2024 and 2025 in order to allow additional updates to be received and help inform next steps on future prioritization.

E. Consensus Recommendations

- The Team recommends that NMFS GARFO continue requiring monitoring of ongoing offshore wind development projects and consider both short and long term research questions that can be answered using monitoring to inform habitat impacts during and after wind energy construction. This would help resolve some uncertainties over time, but in the meantime, avoiding hot spots for North Atlantic right whales and copepods as well as deep basins (e.g., deep basins such as George's and Wilkinson Basin) are important. Monitoring before turbines are put in was also noted as important in all habitats.

V. Next Steps

- D. Borggaard will work with C. Good and provide any NMFS updates on the vessel speed rulemaking for the Team. D. Borggaard will also relay if there is need for further NEIT discussions on the Coast Guard Fairways before the end of the comment period, however, individual members are welcome to provide comments.
- D. Borggaard will follow up with M. Garron to determine if simultaneous necropsy resource limitations may be considered in the North Atlantic right whale Emergency Response Plan under development at GARFO.
- E. Summers will send out a Doodle poll to determine when the Summer 2024 meeting can take place.
- D. Borggaard and the NMFS GARFO team will consider options for a summer meeting location, work on logistics, and provide information to the Team as it becomes finalized.
- The Team will keep track of experimental messaging to vessels using AIS for potential future use in management.
- D. Borggaard will look into the possibility of gathering data on whether or not vessels speed up as they enter and exit SMAs in the Chesapeake and Delaware Bays.
- The Team will compile a list of potential next steps for the PVA for the PET Subgroup to consider. D. Borggaard will relay this list to the PET Subgroup leads.
- Team members will read and digest the Tagging Workshop Report which NMFS, the Marine Mammal Commission, and the Office of Naval Research co-hosted in coordination with the Fisheries and Oceans Canada when published. POST MEETING NOTE: The [Tagging Workshop Report](#) was published in late February 2024.
- Team members will reach out to D. Borggaard with any ideas for potential meeting agenda items for the summer meeting. Ideas to date include:
 - The Team will discuss their 2021 Monitoring Recommendations letter to GARFO to determine if updates to those recommendations are necessary.
 - M. Baumgartner will provide a presentation on his research on decision making using PAM systems for offshore wind projects at the summer meeting to help inform any additional NEIT recommendations on the GARFO specific strategy questions.
 - A presentation on the status of the GARFO NARW Emergency Response Plan.

Appendix A. Meeting Agenda

DAY 1

Time	Topic	Lead(s)	Length
1200	Welcome, Introduction and Getting Organized	Diane Borggaard, Erin Summers	10 min

1210	NMFS Updates	NMFS	110 min
1400	BREAK	All	10 min
1410	Right Whale Mortality Update	Bill McLellan	15 min
1425	Member Updates	All	30 min
1505	NEIT Priorities	Diane Borggaard, Erin Summers	35 min
1540	Daily Wrap Up	Erin Summers, Diane Borggaard	20 min

DAY 2

Time	Topic	Lead(s)	Length
1200	Welcome, Recap of Day 1, Overview of Day 2	Diane Borggaard, Erin Summers	10 min
1210	NEIT Priorities (cont.)	Diane Borggaard, Erin Summers	80 min
1330	PVA Next Steps: Continued Discussions	Mike Runge, Dan Linden	60 min
1430	PVA Cont'd Discussions (as needed) or Member Updates (as needed)	All	30 min
1500	BREAK	All	10 min
1510	NARWC Summary	Mark Baumgartner	20 min
1530	NARWC-Highlighted Research Needs vs NEIT Priorities	All	20 min
1550	Daily Wrap Up	Erin Summers, Diane Borggaard	10 min

DAY 3

Time	Topic	Lead(s)	Length
1200	Welcome, Recap of Day 2, Overview of Day 3	Diane Borggaard, Erin Summers	10 min
1210	Wind Recap and Discussion	All	90 min
1340	Break	All	10 min
1350	Monitoring	All	90 min
1520	Plan for Summer Meeting	Diane Borggaard, Erin Summers	30 min
TBD	Any Other Identified Topic (topic and time to be identified as needed)	TBD	TBD
1550	Summary of Discussion and Wrap Up	Erin Summers, Diane Borggaard	10 min

** Times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary

Appendix B. NEIT Top Nine Priorities

NEIT Priorities: Bolded action items indicate the top six priority items for NEIT coordination; Italicized action items indicate the top six priority action items for recovery at large in the Northeast US. If the action item is both bolded and italicized, then that means it received top priority for both. (NOTE: The NEIT acknowledged that ongoing efforts to

address commercial fishing interactions are a priority and are being addressed through the ALWTRT.)

- ***Identify where are the whales, especially reproductive females. Consider prey modeling studies.***
- *Modeling studies (present conditions and projected into the future) on (1) spatial and temporal movement of whales and copepods, (2) whale habitat and distribution, and (3) climate models.*
- *Define existing fixed gear fishing locations with high degree of specificity.*
- *Use necropsies to determine the cause of death, and use such data to reduce mortalities.*
- ***Notify individual ships directly when their course is likely to bring them to or near a location where a whale was sighted by the aircraft.***
- ***Assess the effectiveness of ship strike measures and adjust, as necessary.***
- **NMFS should develop a long-term, cross-regional plan for monitoring right whale population trends and habitat use.**
- **Reduce or eliminate vessel collisions with right whales. Assess the potential need for modified or additional regulatory mechanisms. Compare recent mortality events with spatial gaps between management areas.**
- **Reduce or eliminate vessel collisions with right whales. Assess traffic patterns and evaluate compliance with existing regulations.**