

SUBMISSION TO THE
NUNAVUT WILDLIFE MANAGEMENT BOARD
FOR

Information: X

Decision:

Recommendation:

Issue: Update on a proposed adaptive narwhal management system for Northern and Eastern Baffin Island.



Figure 1. Narwhal (*Monodon monoceros*) by G. Kuehl 2000.

Background

The 2013 *Integrated Fisheries Management Plan for Narwhal in the Nunavut Settlement Area* (IFMP) incorporated a Harvest Allocation Model developed to support the sustainable allocation of narwhal harvests among Nunavut communities on Northern and Eastern Baffin Island (NEBI). The Harvest Allocation Model takes into consideration that a community may harvest from a mixture of narwhal stocks outside the summer residency period, and the model accounts for this migratory mixing of narwhal stocks by linking harvests in different communities and different seasons to the Total Allowable Harvest (TAH) established for each stock. The Harvest Allocation Model is used to assess proposed annual allocation scenarios and ensure that the combined harvest attributed to a stock does not exceed its TAH.

The Qikiqtaaluk Wildlife Board (QWB) submitted a Request for Decision to the Nunavut Wildlife Management Board (NWMB) in June 2020 and an updated request in March 2022 (Appendix 1) to replace the Harvest Allocation Model with a proposed system that merged the three stocks within NEBI and a single year-round harvesting season methodology. The QWB stated the “summer-stock management system was not supported by Inuit Qaujimagatuqangit [IQ], and unduly restricted harvesting by Inuit”. The NWMB acknowledged concerns that the assumptions used to determine the narwhal stock boundaries and the Harvest Allocation Model used to inform the 2013 IFMP do not reflect available IQ, specifically narwhal movement patterns. The NWMB called on co-management partners to consider the evidence about narwhal stock definitions presented by the QWB while undertaking revisions to the narwhal IFMP (Appendix 2).

To support consideration of the QWB proposal and the revision of the IFMP, Fisheries and Oceans Canada (DFO) requested updated Science advice on stock delineation and the sustainability risks associated with alternative management approaches.

Science Information

In January 2026, DFO Science published a Science Response with two objectives: (1) to review the assumptions and available scientific evidence related to narwhal stock delineation; and (2) to assess the sustainability risks associated with the management system proposed by the QWB (Appendix 3). Biological markers, including stable isotopes, trace elements, contaminants, and genetics, together with movement information demonstrating summer and annual site fidelity, corroborate differentiation among some narwhal summering aggregations. In line with DFO's precautionary approach, in cases where stock delineation is complex, it is generally more precautionary to assume greater subdivision than to assume less. Accordingly, the Science Response advised that narwhal be managed at the smallest scale supported by available evidence of stock structure.

The risk assessment examined several potential management scenarios. The scenario most closely aligned with the QWB's recent proposal consisted of two management units: one combining the Admiralty Inlet, Eclipse Sound, and East Baffin Island stocks within NEBI, and another comprising the Somerset Island stock. If the three NEBI stocks do not mix fully, the assessment estimated a 46–100% risk of decline in the Eclipse Sound stock (the smallest summer aggregation) over the next 20 years, depending on how the combined harvest is allocated.

Update

Following publication of the 2026 Science Response, the Narwhal Working Group met in the months of February, June, and September of 2026 to discuss and develop an alternative to the current Harvest Allocation Model. The objective of an alternative approach is to provide greater flexibility through all-season tags while maintaining safeguards to ensure that harvests remain sustainable for the Admiralty Inlet, Eclipse Sound, and East Baffin Island stocks.

The Working Group has collaboratively developed a draft system called the 'Interim Adaptive Narwhal Management System for Northern and Eastern Baffin Island (NEBI)'. Under the draft system, the tags available in the NEBI area would equal the sum of the annual TAHs for the Admiralty Inlet, Eclipse Sound, and East Baffin Island stocks. Each stock would retain its individual TAH, but the total number of NEBI tags would equal the sum of the three annual TAHs. These tags will be available for the QWB to allocate to the communities of Arctic Bay, Pond Inlet, Clyde River, Qikiqtarjuaq, Pangnirtung, and Iqaluit. Tags issued to these communities will be all-season tags and labelled as NEBI tags. NEBI tags may be used throughout the three zones shown in Figure 2.

Following a harvest, the hunter is responsible for indicating, in the designated space on the physical tag, the zone (1, 2 or 3; see Figure 2) where the harvest occurred as well as the date of harvest. DFO will use the date and location of harvest to estimate the number of narwhals harvested from each stock and will share this information at an annual NEBI narwhal harvest forum with Working Group members and communities. For this system to provide reliable stock-specific harvest estimates, it is essential that hunters accurately and completely record the harvest location and date of each harvest on each tag.

Under the proposed draft system, the estimated harvest attributed to an individual stock could exceed that stock's annual TAH in a particular year, even though the total number of NEBI tags would not exceed the combined annual TAHs. Previous Science advice indicated that some interannual harvest variation may be potentially sustainable, provided that cumulative hunting mortality attributed to each stock over five consecutive years does not exceed five times its annual TAH (Appendix 4). Annual reporting and discussion at a NEBI narwhal harvest forum would allow co-management partners and communities to identify concentrations in the timing or location of harvest and consider adjustments before the five-year limit is reached.

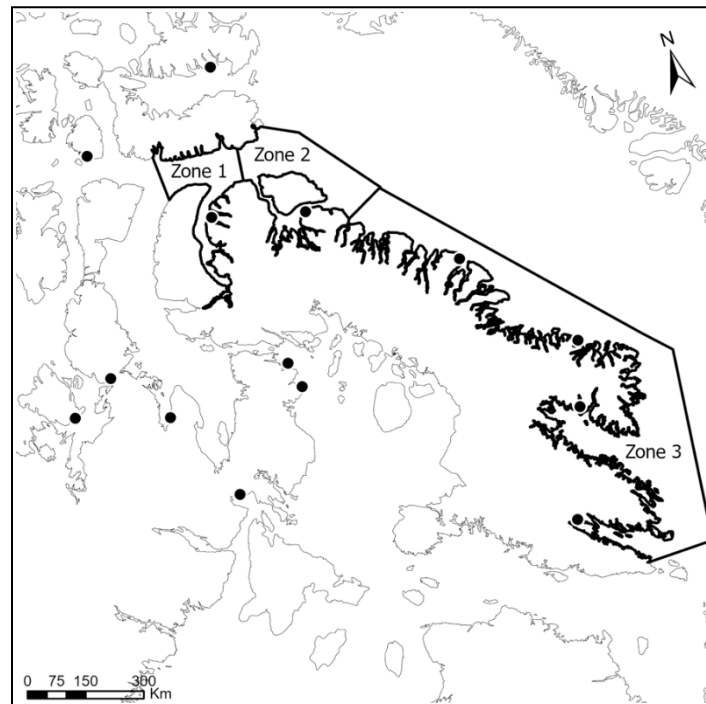


Figure 2. Map indicating the Northern and Eastern Baffin Island (NEBI) area. The area is divided into three zones.

If the estimated total harvest within a stock during the previous five years exceeds the sum of the applicable annual TAHs for that stock over the same five-year period, temporary measures to maintain vital and healthy narwhal populations may be considered. These temporary measures may include, but are not limited to, a reduction in TAH, or Non-quota limitations (NQLS) such as shortened seasons, or a return to stock-specific tags for some or all of the stocks within NEBI. The system is considered adaptive because estimated stock-specific harvests would be reviewed annually and management measures could be taken through regulating harvesting practices, developing or modifying by-laws, or establishing/modifying NQLs or TAH through NWMB Decision when necessary to protect individual stocks.

Consultation

This draft system was co-developed by the Narwhal Working Group with representatives from DFO, Kitikmeot Regional Wildlife Board (KRWB), Kivalliq Wildlife Board (KWB), QWB, Nunavut Tunngavik Incorporated (NTI), and NWMB staff.

DFO plans to conduct written consultations with the Ikajutit Hunters and Trappers Association (HTA), Mittimatalik HTA, Nangmautaq HTA, Nattivak HTA, Pangnirtung HTA, Amaruq HTA, Kitikmeot Regional Wildlife Board (KRWB), Kivalliq Wildlife Board (KWB), QWB, and Nunavut Tunngavik Incorporated (NTI) prior to submitting a request for decision to NWMB.

Next Steps

Subject to consultation and finalization of the proposal, the Working Group intends to bring the proposed system forward for consideration by the NWMB, potentially as early as the first meeting of 2027. If approved through the decision-making process, the targeted implementation date would be the 2027–28 narwhal harvesting season, which opens on April 1st, 2027.

Prepared by: Ricky Di Rocco, Alexis Burt and Tyler Jivan, Fisheries Management;
Marianne Marcoux and Cortney Watt, Science;
Arctic Region, Fisheries and Oceans Canada.

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Appendices

Appendix 1 - 2022 Submission to the Nunavut Wildlife Management Board - Establishment of an Inuit System of Narwhal Management in the Waters of Northern and Eastern Baffin Island, 2022

Appendix 2 - NWMB Decision on Qikiqtaaluk Wildlife Board's Request for Modifications to the Baffin Bay Narwhal Management System

Appendix 3 - DFO Canadian Science Advisory Secretariat Science Response 2026/002 - Considerations for a New Narwhal Management System: Sustainability of Narwhal Around Northern and Eastern Baffin Island

Appendix 4 - DFO Canadian Science Advisory Secretariat Science Advisory Report 2015/006 - Sustainability of a flexible system of total allowable annual catches of narwhals (*Monodon monoceros*)