

An aerial photograph of a whale breaching the surface of the ocean. The whale's dark, sleek body is partially visible above the water, with white foam and spray trailing behind it. The water is a deep, dark green color.

Reducing Impacts from Shipping in Marine Protected Areas: A Toolkit for Canada



WEST COAST
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A toolkit for Canada

Management challenge

- Need for improved consideration and mitigation of shipping impacts in MPAs in Canada

Aim

- Improve collective understanding of domestic and international tools to reduce impacts from shipping in MPAs in Canada

Audience

- MPA practitioners and shipping experts from across GoC departments, ENGOs, industry, other interested governments and stakeholders

Scope

- Canadian marine waters (coastline to 200 NM limit)



A toolkit for Canada

What's in the toolkit?

- 15-page quick reference guide
- Reports on shipping impacts to birds, benthic habitats, ice habitats, and cetaceans
- Analysis of legal tools for reducing impacts in MPAs*
- Evaluation of tools for monitoring and compliance
- Three case studies
 - St. Ann's Bank MPA*
 - Scott Islands mNWA*
 - Tallurutiup Imanga National Marine Conservation Area



CANADIAN MARITIME ZONES

Name of MPA	Maritime zone	Explicit prohibition on depositing, discharging or dumping	Exceptions related to shipping and navigation
Banc-des-Américains/ American Bank	Internal waters	Yes	<ul style="list-style-type: none"> Section 6 allows navigation, subject to certain listed conditions, including a zone where anchoring is prohibited and limits for discharges of sewage for vessels larger than 400 gross tonnage.
Basin Head	Internal waters	Yes	<ul style="list-style-type: none"> Section 4 allows vessel operation in certain areas in order to allow for vessel launching from land.
Musquash Estuary	Internal waters	Yes	<ul style="list-style-type: none"> Section 4 sets speed restrictions for vessels.
Anguniaqvia niqiqyuam	Territorial sea	No	<ul style="list-style-type: none"> Section 5 requires navigation to be conducted in accordance with the <i>Canada Shipping Act, 2001 (CSA)</i> and the <i>Arctic Waters Pollution Prevention Act</i>.

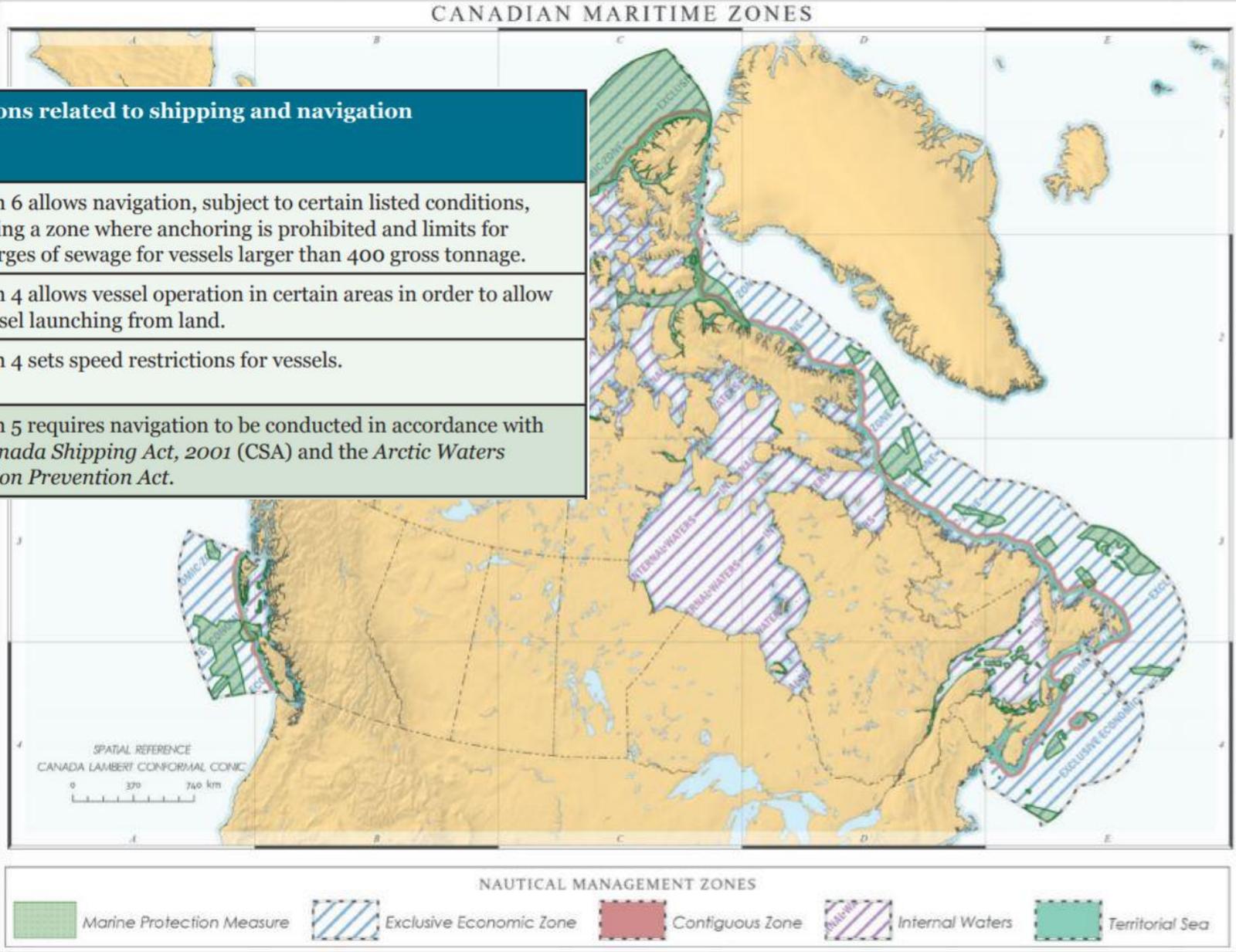


Table 1. Oceans Act Marine Protected Areas

Navigating the Law, p.11

Navigating the Law



An overview and analysis of the legal tools available to address shipping impacts in MPAs:

- MPA Laws
- Shipping Laws

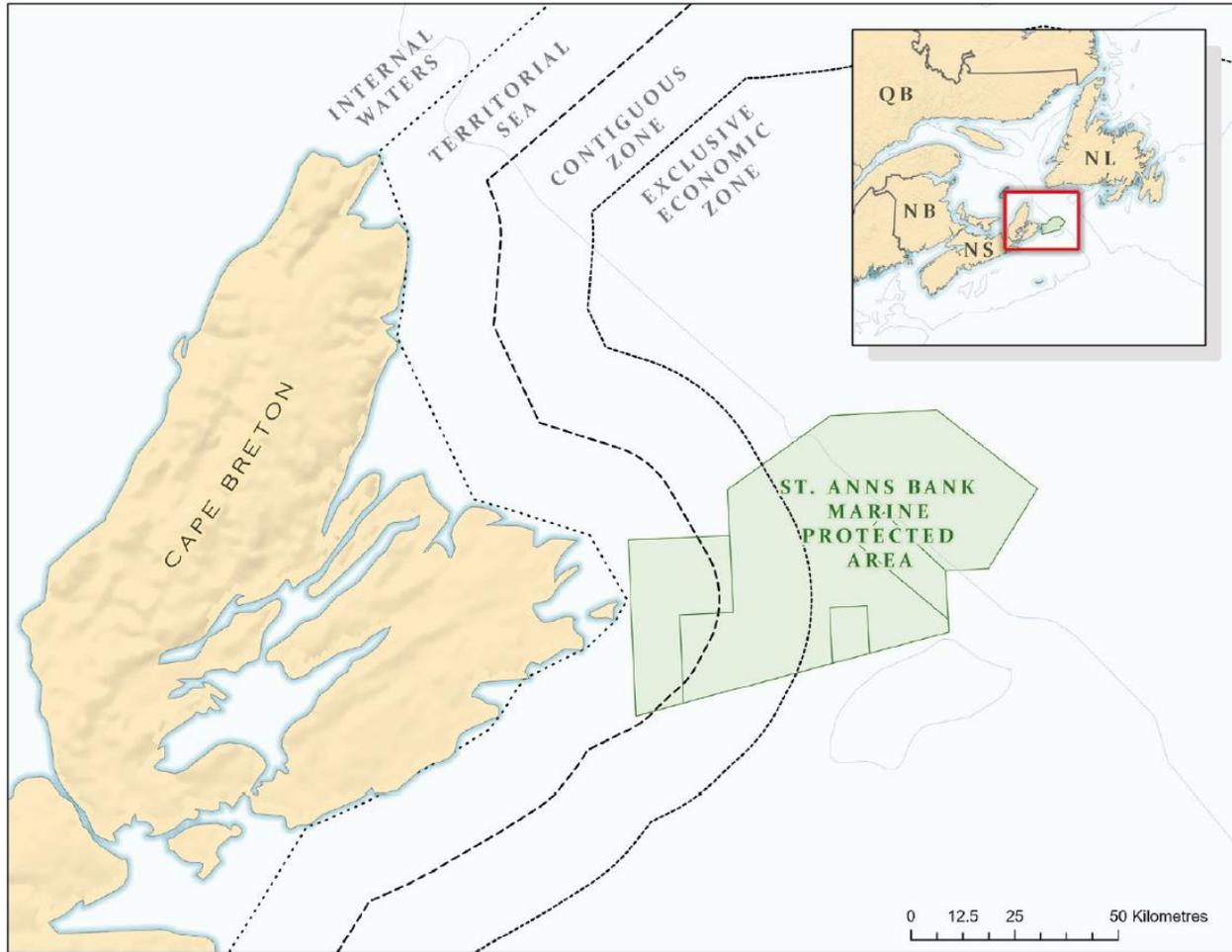
Appendix A: Protection Options Reference Table

Ship Stressor	Zone	Law	Mechanisms/ Tools	Commentary	Page
General Mitigation	IW, TS, CZ, EEZ	Oceans Act s. 41(1)	Notice to Mariners	<p>Potential tool: The Canadian Coast Guard provides the Notice to Mariners (NOTMAR). These notices can provide voluntary guidance for vessels operating in MPAs and can include voluntary speed reductions.</p> <p>These notices can also be used to provide additional and important information to vessels navigating near or through MPAs.</p>	23
General Mitigation	IW, TS, CZ, EEZ (varies)	Canada Shipping Act s. 10.1(1)	Interim Ministerial Orders	<p>Active tool: The minister can make an interim order that puts into force any of the regulatory powers available under the CSA for up to one year. Cabinet can extend the order for two additional years or make the order into a regulation.</p>	16-17
General Mitigation	IW, TS, CZ, EEZ (varies)	Canada Shipping Act s. 35.1	Regulations for Protection of the Marine Environment	<p>Potential tool: The minister can create regulations to protect the environment, including measures for procedures and practices for ships, management of shipping and navigation, compulsory and recommended routing and prohibiting and restricting the operation, navigation, anchoring, mooring or berthing of vessels in MPAs.</p>	17-18

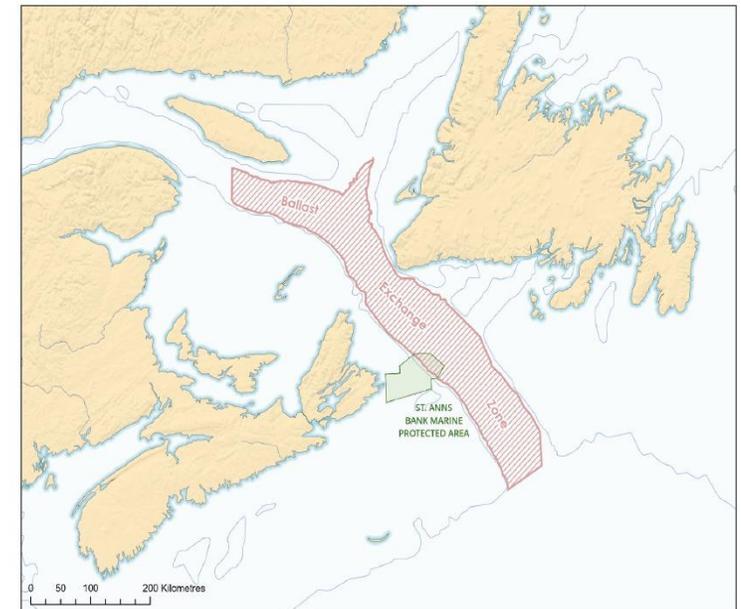
Mitigating specific risks

Ship Stressor	Zone	Law	Mechanisms/ Tools	Commentary	Page
Discharge: Greywater	IW, TS, CZ, EEZ*	CSA: Vessel Pollution and Dangerous Chemicals Regulations s. 131.1(4)	Prohibition on greywater release	Active Tool: Create full prohibition on greywater discharge. The Banc-des-Américains MPA Regulations prohibits the release of greywater. *Does not apply in “Arctic Waters”	22
Benthic Disturbance: Anchorage	IW, TS, CZ, EEZ	CSA – Anchorage Regulations ss. 2, 3	Restriction or prohibition on anchorage	Potential tool: This regulation, created under the CSA, prohibits anchorage in areas that are included by the minister in the schedule. MPAs can be added to the schedule.	19
Acoustic Disturbance	TS, CZ, EEZ	IMO Guides for the Reduction of Underwater Noise from Commercial Shipping to Address Adverse Impacts on Marine Life	Adoption of guidelines	Potential tool: The voluntary measures set out in the guidelines might be adopted into MPA regulations or under the CSA, whether as voluntary or mandatory measures within MPAs.	37

Atlantic: St. Anns Bank Marine Protected Area

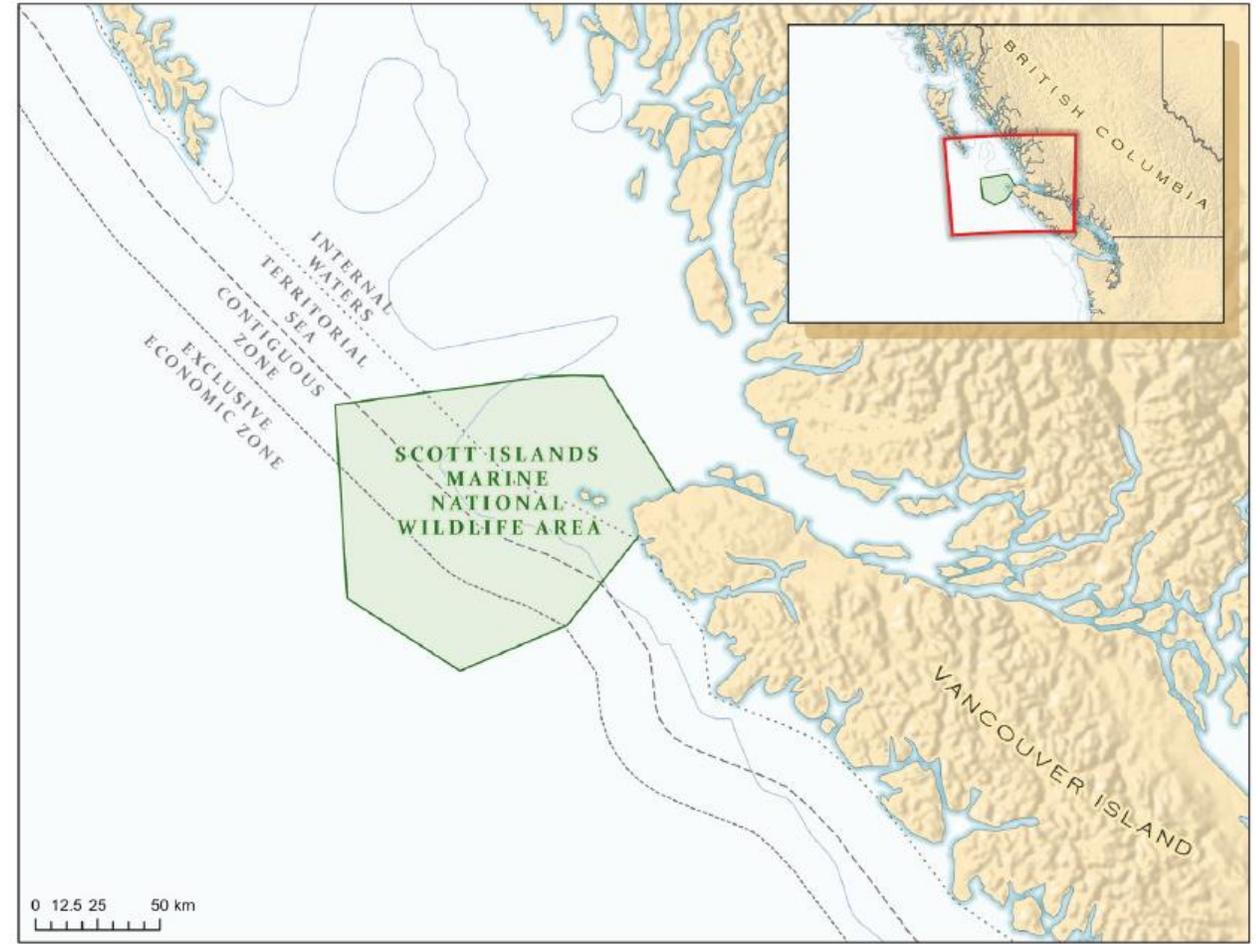


- *Oceans Act* MPA
- Shipping not regulated
- Perceived limitations on regulation of shipping stalled further discussion at AOI stage
- *“Navigation may be carried out in the MPA”*



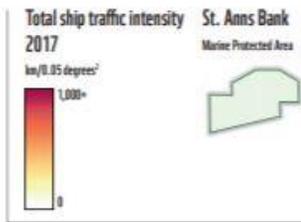
Pacific: Scott Islands marine National Wildlife Area

- *Canada Wildlife Act* mNWA
- Prohibition on carrying out any activity that is likely to disturb, damage or destroy wildlife or its habitat in the mNWA or to remove wildlife or its habitat from the mNWA, BUT vessels navigating in accordance with the CSA are exempted.
- At present, though the Regulations establish some measures to reduce the risk of predator introduction to the islands, they still largely permit shipping and other vessel traffic to continue as before.

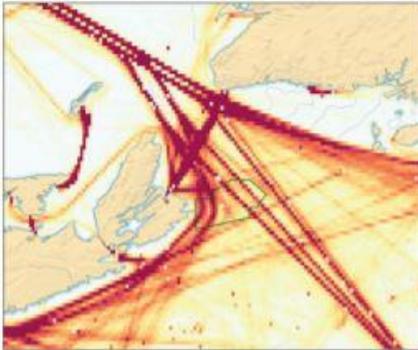


APPENDIX B: VESSEL TRAFFIC INTENSITY BY SHIP TYPE

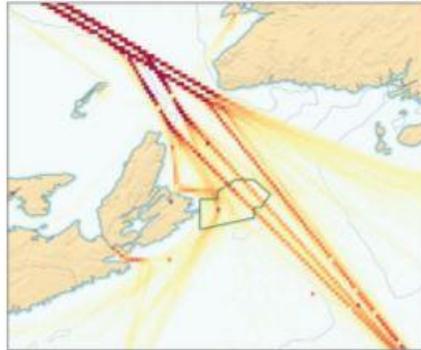
Maps displaying cumulative 2017 ship traffic intensity for the region surrounding St. Anns Bank as represented by total distance traveled in kilometers per 0.5 degrees². Distance was derived from AIS point locations across all available ship types.⁷⁰ Ship types with nominal activity within the region were omitted.



Total ship traffic intensity: All ship types



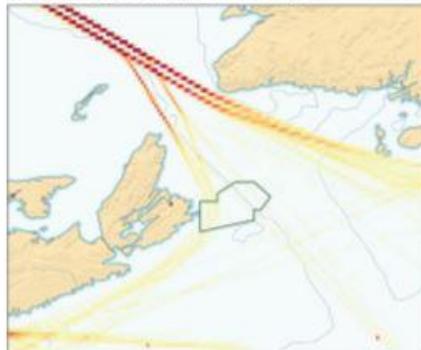
Total ship traffic intensity: Bulk carriers



Total ship traffic intensity: Chemical tankers



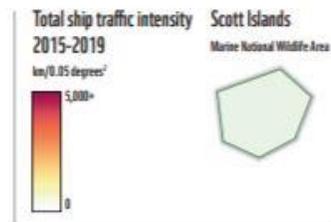
Total ship traffic intensity: Container ships



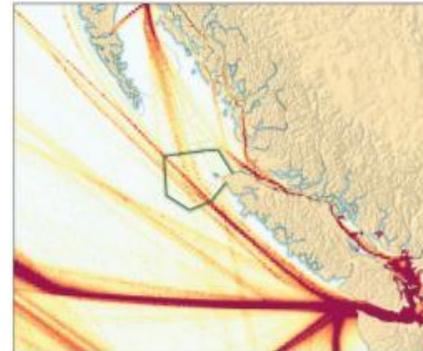
⁷⁰ Vard Marine, Inc. (2019). Greywater Generation Estimates for the BC Coast. Ottawa, ON: Vard Marine. Retrieved from: https://wef.ca/wp-content/uploads/2020/03/greywater-generation-estimates-for-the-bc-coast_june-2019.pdf

APPENDIX B: VESSEL TRAFFIC INTENSITY BY SHIP TYPE

Maps displaying cumulative 2015-2019 ship traffic intensity for the region surrounding Scott Islands represented by total distance traveled in kilometers per 0.5 degrees². Distance was derived from AIS point locations across all available ship types. Ship types with nominal activity within the region were omitted.



Total ship traffic intensity: All ship types



Total ship traffic intensity: Bulk carriers



Total ship traffic intensity: Container ships

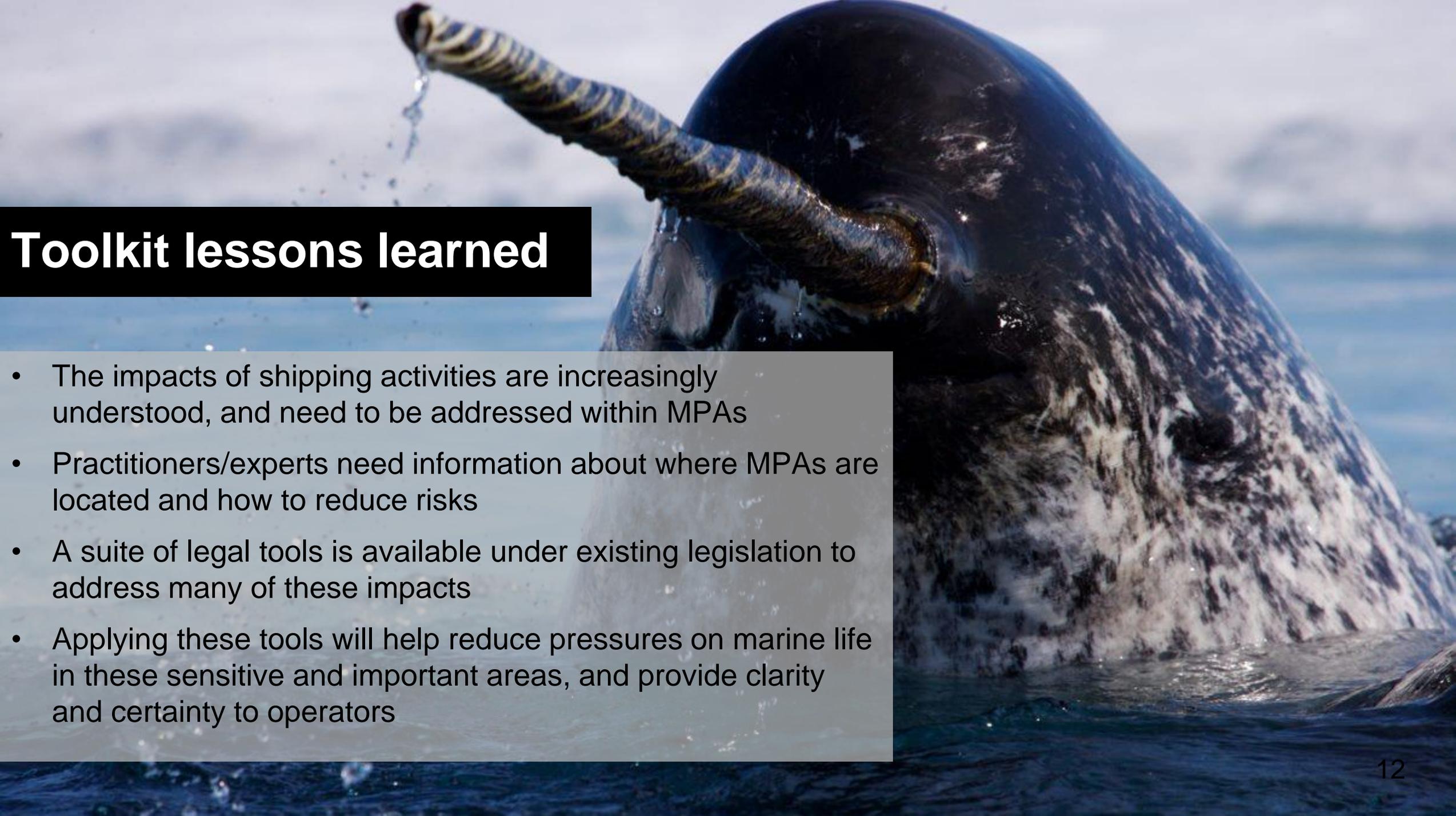


Total ship traffic intensity: Crude oil tankers



Case study recommendations: Summary

- Historically, many of the shipping impacts in MPAs have not been addressed.
- The process of addressing shipping impacts needs to start early: at the initial identification and development stage.
- Each MPA has unique features that are threatened by different shipping impacts (e.g. whales in St. Anns Bank, species at risk and birds in Scott Islands) that require consideration. Breaking down shipping measures by impact allows the best management and/or regulatory tool to be put in place.
- Where mandatory measures are not possible, voluntary measures and agreements can be used to reduce harm and improve conservation outcomes for MPAs.
- Management of shipping in MPAs should be integrated into wider vessel management.



Toolkit lessons learned

- The impacts of shipping activities are increasingly understood, and need to be addressed within MPAs
- Practitioners/experts need information about where MPAs are located and how to reduce risks
- A suite of legal tools is available under existing legislation to address many of these impacts
- Applying these tools will help reduce pressures on marine life in these sensitive and important areas, and provide clarity and certainty to operators



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<https://wwf.ca/habitat/oceans/shipping-in-marine-protected-areas-toolkit/>



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