



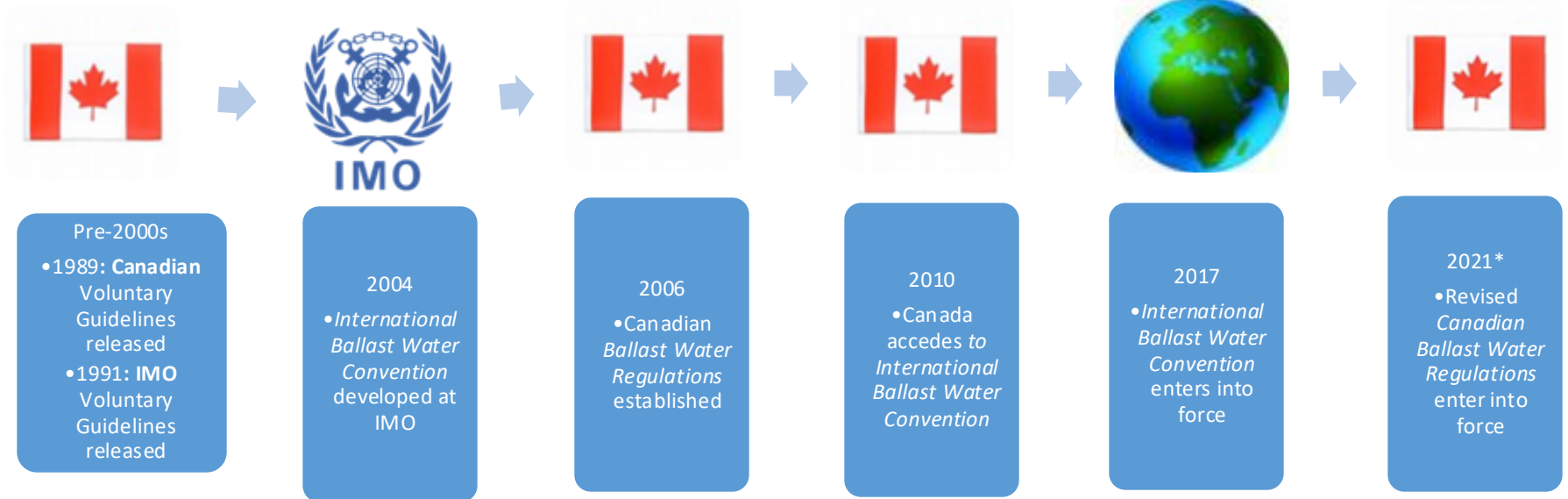
Transport Canada Ballast Water Policy Updates

Presentation for Great Lakes Panel on
Aquatic Nuisance Species Meeting

26 June 2024



Canada's history of leadership on ballast water



*Canada's 2021 *Ballast Water Regulations* apply to domestic and Great Lakes ships as follows:

- **New ships:** Comply on launch
- **2024:** Ships built in/after 2009 must treat ballast water
- **2030:** Ships built pre-2009 must treat ballast water

* Regulations exempt US Great Lakes ships transiting through Canada on voyages between US ports

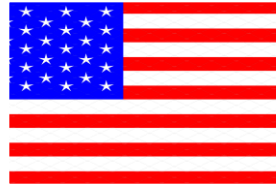
* Great Lakes and domestic ships that comply with these timelines have the option to comply through “deemed compliance”, which is in many ways similar to an equipment standard

TC Ballast Water Policy Areas of Focus



Canada

Implementation of
the *2021 Ballast
Water Regulations*



Binational

Promoting
binational
compatibility in the
Great Lakes



International

Improving the
*Ballast Water
Management
Convention*

Canada: *Regulatory Implementation*



Installation of Ballast Water Management Systems is progressing

→ Some Canadian shipowners facing challenges (e.g., shipyard availability & labour shortages)



Impacts on vessel operations are declining with experience

- **BWMS are reducing environmental risk**
- **Performance is increasing with operator experience**
- Challenges remain in certain seasons and locations



Ballast Water Innovation Program (BWIP)

- TC's 4-year, industry-led, contribution fund for R+D programs
- Aim: to **optimize** the effectiveness of BWMS in the challenging waters of the Great Lakes

U.S.: *Promoting Binational Compatibility*

Binationally compatible ballast water regulations are important to support our shared US\$6 trillion-dollar economy



- 2018 VIDA law seeks to resolve the existing patchwork of rules exists under EPA, USCG and at both the state and the federal level, and directs regulation of Lakers
- EPA recently issued a notice to its proposed rulemaking that acknowledges binational consistency on the Great Lakes as an objective and is expected to issue final standards in fall 2024
- Canada continues to work with United States regulators towards binational compatibility on the Great Lakes, through ongoing dialogue with the EPA, the U.S. Coast Guard and under Annex 5 of the Great Lakes Water Quality Agreement



International: *Improving the Convention*



The Convention is a new and aspirational instrument. An Experience-Building Phase is underway to improve practicality and environmental protection.



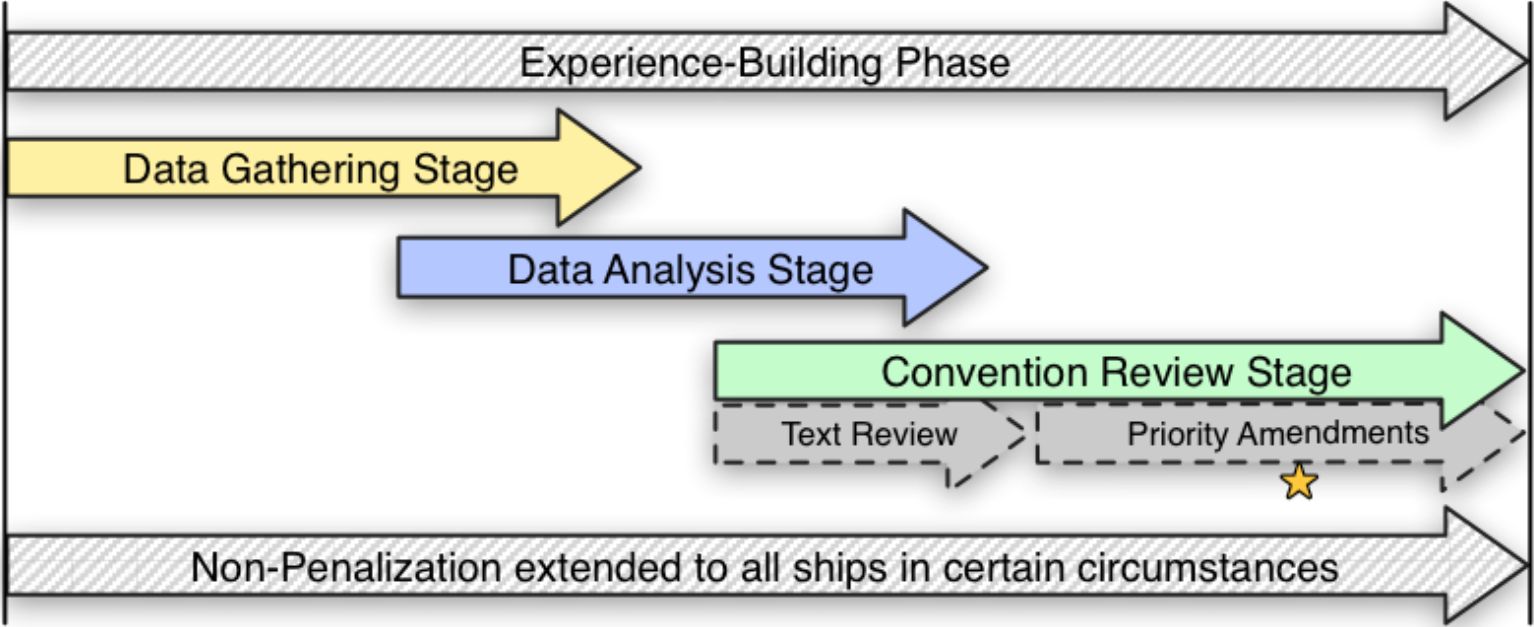
BWM Convention Review (2022-2026)

Canada's focus is on evolving the Convention based on the available evidence, which points to the need for improved BWMS type testing requirements and performance monitoring, enhanced maintenance protocols, and clarified crew training standards.



The Experience-Building Phase

BWM.2-Circ.79 Convention Review Plan



★ We Are Here

20 years since the Convention was signed yet so much still to do

- We need to have reasonable expectations
 - The risk posed by ballast water will never be non-zero
 - The economic impacts of BWM will never be non-zero
- Current challenges can be seen as impetus for innovation:
 - Crew familiarization and more relevant Ballast Water Management Plans
 - Better maintenance practices that are enforceable
 - Sampling and analysis during surveys, including of active substances
 - Supporting equipment innovation for exceptional operating conditions
- Economic impacts need to be more predictable and acknowledged so they can be accounted for on the business side
 - Fairness: game theory predicts that any market loopholes will be exploited

Mitigating the Spread of Invasive Species in the Great Lakes region

- Inter-lake ballast water movement transports species between the many unique regional ecosystems and Lakers transport (95%) of the ballast water.
- Lakers pose higher risks of spreading species than oceangoing ships.
- Ballast water treatment, even at current imperfect levels of performance, will dramatically reduce the transportation of organisms by all ships.
- The spread of invasive species to Canadian ports is expected to drop by 99% if the US follows Canada in regulating Lakers (82% reduction at Canadian ports if only Canadian and US ships coming to Canada comply).
- Some technical challenges affecting the performance of BWMS seem to be intensified on the Great Lakes, in certain seasons and locations. For this reason, TC offers ships “deemed compliance” and has launched R&D work.

Ballast Water Innovation Program (BWIP)



The BWIP provides contribution funding to implement industry-led projects that will:

- support industry's efforts to optimize the installation, operation and maintenance of BWMS on vessels in the GLSLR region and to increase environmental protection; and
- increase the availability of data/information on the installation, operation and maintenance of BWMS in the GLSLR to:
 - **inform implementation of the Regulations in Canada and the Great Lakes;**
 - **inform Canada-U.S. discussions about regulatory compatibility; and**
 - **support Canada's international efforts to improve the Ballast Water Management Convention.**

BWIP Funded Projects – Albion Marine Solutions

Albion Marine

In partnership with Fednav Ltd., Anglo-Eastern Ship Management Ltd., Evoqua Water Technologies

Project title: Addressing the challenging ballast water issues in Great Lakes and St. Lawrence River

Description: This project is collecting data on BWMS performance from vessels operating in the GLSLR region. The information will be used to enhance pre-ballast water management systems filtration to prevent high sediment, total suspended solids and biological organisms from entering BWMS, with the goal of improving efficacy of the treatment system.



FEDNAV



ANGLO-EASTERN



evoQUA
WATER TECHNOLOGIES

BWIP Funded Projects – Mouawad Consulting

Mouawad Consulting

In partnership with Lower Lakes Towing Ltd., Boll & Kirch Filterbau, bestUV B.V., KraftPowercon

Project title: Gather information, assess and evaluate possible solutions for technical challenges with the installation, operation, and maintenance of BWMS on vessels in the GLSLR region

Description: Addressing knowledge gaps regarding BWMS performance in the GLSLR and develop solutions to improve BWMS efficacy. In partnership with BWMS component manufacturers, the project will assess technical issues relating to filtration and ultra-violet treatment and will conduct vessel trials on the solutions developed.



BWIP Funded Projects – Armateurs du Saint Laurent

Armateurs du Saint-Laurent

In partnership with Canada Steamship Lines, Group Desgagnés, Innovation maritime, L'Institut des sciences de la mer de Rimouski

Project title: Characterizing installation requirements and performance of ballast water management systems in the Great Lakes-St. Lawrence River system

Description: Gathering information on the installation of BWMS on six vessels, and developing recommendations and best practices. The project will also monitor the performance of BWMS under different operating conditions in the GLSLR over two seasons and compare the systems' performance under the existing Canadian (and the proposed United States) requirements.



Thank you

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International Marine Policy
Transport Canada

