

**Benjamin Isitt
Barrister and Solicitor**

October 30, 2023

Jorge Daniel Taillant, Executive Director
Commission for Environmental Cooperation
700 de la Gauchetière St. West, Suite 1620
Montreal, Quebec, H3B 5M2, Canada
Email. jdtailant@cec.org

SENT VIA EMAIL

Dear Mr. Taillant:

Re: Complaint Regarding Canada's Failure to Enforce its *Fisheries Act*, Section 36(3)

We write on behalf of our client Stand.earth ("Stand") to request that the Commission for Environmental Cooperation (the "Commission") initiate an investigation into Canada's failure to effectively enforce Section 36(3) of its *Fisheries Act*, RSC 1985, c F-14, in order to prevent pollution of the marine environment, particularly pollution from cruise ships using "exhaust gas cleaning systems" along the Pacific coast of Canada.

This complaint is made pursuant to Articles 24.4 and 24.27 of Chapter 24 of the *United States-Mexico-Canada Agreement* (2020) (the "USMCA").¹

Stand is a public interest advocacy organization duly registered as a non-profit society under the laws of British Columbia, as the Stand Environmental Society. As such, Stand has appropriate standing for making these submissions and requesting an investigation pursuant to Article 24.27. While Stand has not directly experienced harm arising from Canada's failure to effectively enforce Section 36(3) of its *Fisheries Act*, the organization draws the Commission's attention to harm to the marine environment — and diverse plant and animal species — arising from Canada's lack of effective enforcement, as described below. Stand submits that the public interest in providing a remedy for this harm is properly within the purview of the Commission's discretion under Article 24.27(3)(a).

In April 2023, Stand wrote to Canada's Minister of Environment and Climate Change, the Honourable Steven Guilbeault, requesting information regarding Canada's efforts to enforce Section 36(3) of its *Fisheries Act*, specifically with respect to pollution caused by

¹ *Agreement between the United States of America, the United Mexican States, and Canada* (the "USMCA"), effective July 1, 2020.

cruise ships and other vessels using exhaust gas cleaning systems (“EGCS”s or “scrubbers”) to circumvent international emission-control requirements. A copy of Stand’s letter to Minister Guilbeault is attached as Schedule “A” of this letter.

Minister Guilbeault responded to Stand in a letter dated August 18, 2023, stating that:

- a. “There are currently no regulations under this act that authorize the deposit of deleterious substances from cruise ship operators into water frequented by fish”, and
- b. “Between January 1, 2018, and December 31, 2022, two Environment and Climate Change Canada enforcement investigations related to cruise ship operations were initiated under subsection 36(3) of the Act and are now closed. Neither resulted in enforcement action.”

A copy of Minister Guilbeault’s letter to Stand is attached as Schedule “B” of this letter.

In the pages that follow, we set out our understanding of (1) anti-pollution provisions of Canada’s *Fisheries Act*, (2) Canada’s obligations to protect the marine environment under the *USMCA* and other international instruments, (3) scientific research on ecological impacts of scrubber pollution, (4) transnational considerations with respect to coastal waters of the Salish Sea, Kwakwaka’wakw Sea and Great Bear Sea, and (5) ecological values that are harmed by Canada’s decision to not effectively enforce its *Fisheries Act* with respect to scrubber pollution.

We trust this information will be sufficient to support the Commission in initiating an investigation into Canada’s decision to not effectively enforce its *Fisheries Act* — to ensure a fair regulatory and competitive framework for entities operating throughout the *USMCA* area, and to prevent scrubber pollution from further compromising ecological values in the sensitive waters of the Pacific coast.

A. Canada’s Fisheries Act and Unlawful Pollution of the Marine Environment

Under Canada’s *Fisheries Act*, RSC 1985, c F-14 it is unlawful for any person to deposit or permit the deposit of any type of deleterious substance into water frequented by fish, except as authorized by regulations enacted by the Government of Canada.

This prohibition is provided for at subsection 36(3) and aligns with the express purpose of the legislation to provide a framework for “the conservation and protection of fish and fish habitat, including by preventing pollution” (s. 2.1):

Deposit of deleterious substance prohibited

36 (3) Subject to subsection (4), no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water.

The *Fisheries Act* applies to all waters in the territorial sea of Canada, all internal waters of Canada, and, with respect to a sedentary species, any portion of the continental shelf of Canada that is beyond the limits of Canadian fisheries waters (s. 2.2).

The legislation provides a limited exemption for polluting fish-bearing waters, stating that a person does not contravene s. 36(3) by depositing or permitting the deposit of a waste, pollutant or deleterious substance under conditions authorized by regulations (s. 36(4)):

Deposits authorized by regulation

36 (4) No person contravenes subsection (3) by depositing or permitting the deposit in any water or place of

(a) waste or pollutant of a type, in a quantity and under conditions authorized by regulations applicable to that water or place made by the Governor in Council under any Act other than this Act;

(b) a deleterious substance of a class and under conditions — which may include conditions with respect to quantity or concentration — authorized under regulations made under subsection (5) applicable to that water or place or to any work or undertaking or class of works or undertakings; or

(c) a deleterious substance the deposit of which is authorized by regulations made under subsection (5.2) and that is deposited in accordance with those regulations.

The Government of Canada is authorized to make regulations prescribing:

- the deleterious substances or classes thereof authorized to be deposited;
- the waters or places or classes thereof where any deleterious substances are authorized to be deposited;
- quantities or concentrations of any deleterious substances that are authorized to be deposited;
- the conditions or circumstances under which any deleterious are authorized to be deposited; and
- the persons who may authorize the deposit of any deleterious substances in the absence of any other authority. (s. 36(5))

A deleterious substance is defined at s. 34(1) as:

(a) any substance that, if added to any water, would degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water, or

(b) any water that contains a substance in such quantity or concentration, or that has been so treated, processed or changed, by heat or other means, from a natural state that it would, if added to any other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water.

Order in Council PC 2014-196 (enacted by the Governor General in Council in 2014 pursuant to s. 43.2 of the *Fisheries Act*) designates the Minister of Environment as Canada's minister responsible for administration and enforcement of s. 36(3).²

Where the deposit of a deleterious substance has been authorized by regulation, the Minister may require any person so authorized to conduct sampling, analyses, tests, measurements or monitoring, to install or operate equipment or comply with any procedures, and to report any information necessary for the Minister to verify whether the person is depositing the deleterious substance in the manner authorized. (s. 36(5.5)).

The *Fisheries Act* contains strong enforcement provisions (at s. 38), authorizing the Minister to designate inspectors and authorizing inspectors to "enter any place or premises, including a vehicle or vessel — other than a private dwelling-place" — in which the inspector believes on reasonable grounds that:

- (a) there is anything that is detrimental to fish habitat; or
- (b) there has been carried on, is being carried on or is likely to be carried on any work, undertaking or activity resulting or likely to result in
 - (i) the death of fish,
 - (i.1) the harmful alteration, disruption or destruction of fish habitat, or
 - (ii) the deposit of a substance in water frequented by fish or in any place under any conditions where the substance or any other substance that results from the deposit of the substance may enter any such water.

If a deleterious substance is deposited into water frequented by fish in a manner contrary to the act, any person who owns or has charge, management or control of the substance (or the work, undertaking or activity that resulted in the deposit, or who causes the substance to be deposited into the water) has a duty to notify without delay an inspector, fishery officer, fishery guardian or authority prescribed by the regulations (s. 38(5)). A person bound by this duty also has a duty to take corrective measures, meaning they must, as soon as feasible, take all reasonable measures to prevent the occurrence or "to counteract, mitigate or remedy any adverse effects that result from the occurrence or might reasonably be expected to result from it." (s. 38(6)).

When making decisions with respect to enforcement of the anti-pollution provision at s. 36(3) and other provisions, the Minister may consider several factors, including:

- a. the application of a precautionary approach and an ecosystem approach;
- b. scientific information;
- c. Indigenous knowledge of the Indigenous peoples of Canada that has been provided to the Minister;

² PC 2014-196, February 28, 2014, enacting Order S1/2014—21 "Order Designating the Minister of the Environment as the Minister Responsible for the Administration and Enforcement of Subsections 36(3) to (6) of the *Fisheries Act*", s. 2. See also Environment Canada, *Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act* (November 2001), p. 1.

- d. community knowledge; and
- e. social, economic and cultural factors in the management of fisheries (s. 2.5 (a), (c), (d), (e), (f), (g)).³

Every person who contravenes s. 36(3) is guilty of an offence and liable on conviction by way of indictment of a fine of between \$15,000 and \$1,000,000 (for a first offence) and a fine of between \$30,000 and \$2,000,000 or imprisonment of up to 3 years (or both) for a second and any subsequent offence. A corporation convicted by way of indictment is liable for a fine of between \$500,000 and \$6,000,000 (for a first offence) and between \$1,000,000 and \$12,000,000 for a second and any subsequent offence (s. 40(2)(a)).

If the Crown proceeds by way of summary conviction a person is liable to a fine of between \$5,000 and \$300,000 (for a first offence) and a fine of between \$10,000 and \$600,000 or imprisonment of up to 6 months (or both) for a second and any subsequent offence. A corporation convicted by way of summary conviction is liable for a fine of between \$100,000 and \$4,000,000 (for a first offence) and between \$200,000 and \$8,000,000 for a second and any subsequent offence (s. 40(2)(b)).

The jurisdiction of the courts of Canada to enforce the anti-pollution provisions of the *Fisheries Act* against vessels, their owners and their crew — including against foreign vessels, owners and crew, even when lying off the coast of Canada — is expressly provided for at s. 88 of the *Fisheries Act* and ss. 257-258 of the *Canada Shipping Act*, SC 2001, c 26.

Regulations governing the discharge of deleterious substances in wastewater are established in the *Wastewater Systems Effluent Regulations*, SOR/2012-139, including an application procedure for authorizing discharges pursuant to s. 36(4) of the *Fisheries Act* (s. 25(1)).

B. Canada's International Obligations to Protect the Marine Environment from Cruise Ship Pollution

A number of international instruments support the principles that Canada should not pollute the marine environment.

These include the *United States-Mexico-Canada Agreement* (2020) (the “USMCA”, successor to the *NAFTA* treaty), the *International Convention for the Prevention of Pollution from Ships* (the “MARPOL” treaty”, 1973), and the *Convention on Biological Diversity* (1992).

³³ *Fisheries Act*, RSC 1985, c F-14, s. 2.5; Order S1/2014—21 “Order Designating the Minister of the Environment as the Minister Responsible for the Administration and Enforcement of Subsections 36(3) to (6) of the *Fisheries Act*”, s. 3.

Duty to Protect the Marine Environment from Ship Pollution

Canada has an express duty under Article 24.10(1) of the *USMCA* “to prevent the pollution of the marine environment from ships.”⁴

This duty flows from its obligations under the *International Convention for the Prevention of Pollution from Ships* (1973), as amended by the Protocols of 1978 and 1997 (the “MARPOL Convention”), to which Canada is a signatory. A number of Annexes to MARPOL clarify the obligations of parties (with amendments from time to time to respond to new technical information or emerging issues), including obligations to enact and enforce regulations to prevent pollution of the marine environment or air pollution.⁵ The MARPOL air pollution guidelines were amended in 2008 with Annex VI (referred to as “IMO 2020”), a global regulation mandating the burning of cleaner fuels by 2020, and with the establishment of the North America Emissions Control Area (“ECA”) in 2012.⁶

The standard that Canada must meet in fulfilling this duty under MARPOL is defined in the *USMCA* Article 24.10, footnote 14:

A Party shall be deemed in compliance with this provision if it maintains the measure or measures listed in Annex 24-B implementing its obligations under MARPOL Convention, or adopts any subsequent measure or measures that provide an equivalent or higher level of environmental protection as the measure or measures listed.⁷

Annex 24-B of Chapter 24 states that the applicable measure for Canada is the *Canada Shipping Act, 2001* and its related regulations.⁸

Related to its duty to prevent marine pollution from ships, Canada has a duty to cooperate with the United States and Mexico to address matters of mutual interest with respect to pollution of the marine environment, including:

- pollution from routine operations of ships;

⁴ *USMCA*, ch. 24, art. 24.10(1).

⁵ The particulars of this international instruments are described in Chapter 24, art. 24.10(1), footnote 13 as: “the International Convention for the Prevention of Pollution from Ships, done at London, November 2, 1973, as modified by the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, done at London, February 17, 1978, and the Protocol of 1997 to Amend the International Convention for the Prevention of Pollution from Ships, 1973 as Modified by the Protocol of 1978 relating thereto, done at London, September 26, 1997 (MARPOL Convention), and any existing and future amendments to the MARPOL Convention, to which the Parties are parties.”

⁶ IMO 2020 (MARPOL Annex VI); IMO, *IMO 2020: Consistent Implementation of MARPOL Annex VI* (2019); United States Environmental Protection Agency, *Designation of North American Emission Control Area to Reduce Emissions from Ships* (March 2010). For a discussion of emissions from maritime transport in North America, see CEC, *Reducing Emissions from Goods Movement via Maritime Transportation in North America* (Montreal, QC: Commission for Environmental Cooperation, 2018).

⁷ *USMCA*, ch. 24, art. 24.10, footnote 14.

⁸ *USMCA*, ch. 24, Annex 24-B.

- deliberate pollution from ships;
- development of technologies to minimize ship-generated waste;
- emissions from ships;
- increased protection in special geographic areas; and
- enforcement measures including notifications to flag states and, as appropriate, to port states.⁹

Duty to Enforce Its Own Environmental Laws and Investigate Complaints Under the USMCA

Canada has a duty under the *USMCA* to “adopt, maintain, and implement laws, regulations, and all other measures necessary to fulfill its respective obligations under” the International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocol of 1978 (s. 24.8(4)).¹⁰

Canada also has a duty under the *USMCA* to ensure that “an interested person may request that the Party’s competent authorities investigate alleged violations of its environmental laws, and that the competent authorities give those requests due consideration, in accordance with its law.”¹¹

Canada also has a duty under Article 24.5(2) of the *USMCA* to “provide for the receipt and consideration of written questions or comments from persons ... regarding its implementation of this Chapter,” and to “respond in a timely manner to these questions or comments in writing and in accordance with domestic procedures, and make the questions or comments and the responses available to the public, for example by posting on an appropriate public website.”¹²

Canada also has a duty to “make use of existing, or establish new, consultative mechanisms, for example national advisory committees, to seek views on matters related to the implementation of this Chapter. These mechanisms may include persons with relevant experience, as appropriate, including experience in business, natural resource conservation and management, or other environmental matters.”¹³

Duty to Promote Conservation of Biological Diversity

Canada has a duty under Article 24.15 of the *USMCA* to “promote and encourage the conservation and sustainable use of biological diversity, in accordance with its law or policy.”¹⁴ This includes recognition of “the importance of respecting, preserving, and maintaining knowledge and practices of indigenous peoples and local communities embodying traditional lifestyles that contribute to the conservation and sustainable use

⁹ *USMCA*, ch. 24, art. 24.10(3).

¹⁰ *USMCA*, ch. 24, art. 24.8(4).

¹¹ *USMCA*, ch. 24, art. 24.6(1).

¹² *USMCA*, ch. 24, art. 24.5(2).

¹³ *USMCA*, ch. 24, art. 24.5(3).

¹⁴ *USMCA*, ch. 24, art. 24.15(2).

of biological diversity.”¹⁵ The duty to promote conservation of biological diversity also includes recognition of “the importance of public participation and consultation ... in the development and implementation of measures concerning the conservation and sustainable use of biological diversity,” and cooperation to exchange information and experiences related to “the protection and maintenance of ecosystems and ecosystem services.”¹⁶

Canada’s duties in the *USMCA* regarding conservation of biological diversity are consistent with Canada’s obligations under the *Convention on Biological Diversity*, made in 1992. That convention defines “biological diversity” at Article 2 as meaning: “the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.”¹⁷

Canada and other contracting parties have pledged to: “Develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity” and to “Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies” (art. 6).¹⁸

Duty to Conserve Fisheries and Protect Wild Fish Species

Canada has recognized in Article 24.17 of the *USMCA* the “importance of taking measures aimed at the conservation ... of fisheries.”¹⁹

Canada has also committed at Article 24.18 to operate a fisheries management system that is designed to “protect marine habitat”, and which is based “on the best scientific evidence available and on internationally recognized best practices for fisheries management and conservation.”²⁰

International instruments that are applicable to the exercise of this duty include:

- (a) the *United Nations Convention on Law of the Sea* (UNCLOS), done at Montego Bay, December 10, 1982;
- (b) the *United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, done at New York, December 4, 1995 (UN Fish Stocks Agreement);
- (c) the *FAO Code of Conduct for Responsible Fisheries*;

¹⁵ *USMCA*, ch. 24, art. 24.15(3).

¹⁶ *USMCA*, ch. 24, art. 24.15(5) and (6).

¹⁷ *Convention on Biological Diversity* (1992), art. 2.

¹⁸ *Convention on Biological Diversity* (1992), art. 2.

¹⁹ *USMCA*, ch. 24, art. 24.17(2).

²⁰ *USMCA*, ch. 24, art. 24.18(1) and (3).

- (d) the *1993 FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas* (Compliance Agreement), done at Rome, November 24, 1993;
- (e) the *2001 FAO International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing* (IUU IPOA), adopted at Rome, February 23, 2001; and
- (f) the *2009 Agreement on Port State Measures to Prevent, Deter, and Eliminate IUU Fishing* (Port State Measures Agreement), done at Rome, November 22, 2009.²¹

Duty to Conserve Marine Species including Marine Mammals

Canada has a duty under Article 24.19 of the *USMCA* to promote the long-term conservation of marine mammals and other marine species through “the implementation and effective enforcement of conservation and management measures.”²²

Duty to Not Pollute under the Boundary Waters Treaty

In addition to these duties enumerated under the *USMCA* and other instruments, Canada has a duty to prevent pollution “to the injury of health or property” along the “boundary waters” of Canada and the United States pursuant to the *Boundary Waters Treaty* of 1909.

The *Treaty Between the United States and Great Britain Relating to Boundary Waters and Questions Arising Between the United States and Canada, 1909* (the “*Boundary Waters Treaty, 1909*”) states at the Article IV that:

“It is further agreed that the waters herein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other.”

Article VII of the *Boundary Waters Treaty* established the International Joint Commission, a 6-member binational entity which has worked to resolve more than 100 matters raised by the respective federal governments since its formation in 1912.²³

C. Canada’s International and Domestic Obligations to Protect the Marine Environment from Ship Pollution under the Canada Shipping Act, 2001

As stated above, Canada has agreed in Chapter 24 of the *USMCA* to implement its MARPOL obligations with respect to marine pollution from ships through the *Canada Shipping Act, 2001*, SC 2001, c 26 (the “*Shipping Act*”) and regulations.

²¹ *USMCA*, ch. 24, art. 24.18(3), footnote 19.

²² *USMCA*, ch. 24, art. 24.19(1).

²³ International Joint Commission, “The Boundary Waters Treaty of 1909” <<https://www.ijc.org/en/boundary-waters-treaty-1909>>.

The *Shipping Act* includes the objectives to “protect the marine environment from damage due to navigation and shipping activities” and “establish an effective inspection and enforcement program.”²⁴

The Act applies to “Canadian vessels everywhere and ... foreign vessels in Canadian waters”, and anti-pollution regulations made under paragraph 35(1)(d) also apply (if they so state) to “foreign vessels in waters in the exclusive economic zone of Canada.”²⁵

The Exclusive Economic Zone of Canada is defined (pursuant to s. 35 of the *Interpretation Act*, RSC 1985, c I-21 and s. 13(1) of the *Oceans Act*, SC 1996, c 31) as an area of sea extending 200 nautical miles outward from Canada’s territorial sea (which is itself defined as a belt of sea extending 12 nautical miles outward from the low-water line along the coast).²⁶

Section 35(1)(d) of the *Shipping Act* authorizes the Government of Canada (through the Governor in Council, on recommendation of the Minister of Transport) to make regulations implementing anti-pollution measures of MARPOL and other treaties, including “establishing stricter standards than [the international instrument] sets out.” A person or vessel who contravenes one of these regulations is liable on summary conviction to a fine of up to \$1,000,000 or to imprisonment for up to 18 months, or both (s. 38(1)).²⁷

The *Shipping Act* also authorizes (at s. 35.1(1)) the Government of Canada (through the Governor in Council, on recommendation of the Minister of Transport) to make regulations for “the protection of the marine environment from the impacts of navigation and shipping activities”, including regulations respecting “the design, construction, manufacture and maintenance of vessels” (a), “inspections and testing of vessels” (g), and “the development, maintenance and implementation of a management system that sets out the manner in which marine environment protection measures are to be integrated into day-to-day navigation and shipping operation” (i).

Section 187 of the *Shipping Act* prohibits any person or vessel from discharging a “prescribed pollutant”, except in accordance with regulations made under this part or a permit granted under *Canadian Environmental Protection Act*, 1999, Part 7. The Governor in Council is authorized at s. 190(1) of the *Shipping Act* to make regulations “prescribing pollutants ... and respecting the circumstances in which such pollutants may be discharged”.

Any person or vessel that discharges a pollutant in contravention of section 187 is guilty of an offence punishable by a fine of up to \$1,000,000 or up to 18 months imprisonment upon summary conviction (s. 191(1) and (2)). If an offence is committed or continued on

²⁴ *Canada Shipping Act, 2001*, SC 2001, c 26, s. 6.

²⁵ *Canada Shipping Act, 2001*, SC 2001, c 26, s. 8.

²⁶ *Interpretation Act*, RSC 1985, c I-21, s. 35; *Oceans Act*, SC 1996, c 31, ss. 4 and 13(1).

²⁷ If a court is of the opinion that there is an equivalent provision in the *Canada Shipping Act* with a lesser penalty, the vessel or person found guilty of the contravention is liable to the lesser punishment (s. 38(2)).

more than one day, the person or vessel is liable to be convicted for a separate offence for each day on which it is committed or continued (s. 191(3)).

In determining an appropriate punishment, the court may consider the following factors:

- a. the harm or risk of harm caused by the offence;
- b. an estimate of the total costs of clean-up, of harm caused, and of the best available mitigation measures;
- c. the remedial action taken, or proposed to be taken, by the offender to mitigate the harm;
- d. whether the discharge or anticipated discharge was reported as required under the act;
- e. any economic benefits accruing to the offender that, but for the offence, the offender would not have received; and
- f. any evidence from which the court may reasonably conclude that the offender has a history of non-compliance with legislation designed to prevent or to minimize pollution (s. 191(4)).

Prosecution of offences under the *Shipping Act* must be commenced within 2 years after the Minister became aware of the subject-matter of the offence (s. 256(1)).

Mirroring the anti-pollution provisions of the *Fisheries Act*, Canadian courts have jurisdiction to enforce the anti-pollution provisions of the *Shipping Act* against foreign vessels, their owners and crew, even when lying off the coast of Canada (ss. 257-258).

Where the Minister of Transport believes on reasonable grounds that a vessel may discharge, or may have discharged, a prescribed pollutant, they may direct the vessel to proceed to a designated location, by a route and in a manner specified by the Minister to (a) unload the pollutant, or (b) moor, anchor or remain there for any reasonable period that the Minister may specify (s. 189(d)).

The Minister of Transport also has the authority to direct a foreign vessel to leave Canadian waters (or not enter Canadian waters) if they have reasonable grounds to believe that the vessel has contravened an international convention, including MARPOL (s. 227(1)).

The *Shipping Act* also authorizes the Government of Canada (through the Governor in Council, on recommendation of the Minister of Transport) to make regulations respecting “the design, construction, manufacture and maintenance of vessels”, “inspections and testing of vessels”, and “the development, maintenance and implementation of a management system that sets out the manner in which marine environment protection measures are to be integrated into day-to-day navigation and shipping operation”, with a view toward “the protection of the marine environment from the impacts of navigation and shipping activities” (s. 35.1(1)).

Regulations have been enacted pursuant to the anti-pollution provisions of the *Shipping Act*, including the *Vessel Pollution and Dangerous Chemicals Regulations*, SOR/2012-69. Section 111(6) of this regulation governs the discharge of residues and washwater from exhaust gas cleaning systems, stating that:

Residues from exhaust gas cleaning systems

- (6) If a vessel operates an exhaust gas cleaning system that has been certified in accordance with Resolution MEPC.184(59), the vessel's authorized representative must ensure that
- (a) any exhaust gas cleaning system residues are delivered to an onshore reception facility; and
 - (b) the washwater from the operation of the system, as well as the monitoring and recording of the washwater, meets the requirements of section 10 of the Resolution.

Section 10 of MARPOL Resolution MEPC.184(59) ("2009 Guidelines for Exhaust Gas Cleaning Systems") establishes "Washwater discharge criteria". These criteria impose limits on pH, oil content (as measured by Polycyclic Aromatic Hydrocarbons ("PAHs")), turbidity, suspended solids, nitrates and additives in discharged washwater, and also impose the following monitoring and recording requirement:

- 10.1.1 When the EGC system is operated in ports, harbours, or estuaries, the washwater monitoring and recording should be continuous. The values monitored and recorded should include pH, PAH, turbidity and temperature. In other areas the continuous monitoring and recording equipment should also be in operation, whenever the EGC system is in operation, except for short periods of maintenance and cleaning of the equipment. The discharge water should comply with the following limits ...²⁸

Resolution MEPC.184(59) also imposes requirements for the testing, monitoring and recording of EGC systems, including requirements that:

- a. "The recording and processing device should be of robust, tamper-proof design with read-only capability" (s. 7.1);
- b. Data should be recorded "against UTC and ships position by a Global Navigational Satellite System (GNSS)" (s. 7.2);
- c. "Data should be retained for a period of not less than 18 months from the date of recording" and kept onboard (even if the unit is changed) (s. 7.4); and
- d. "The device should be capable of downloading a copy of the recorded data and reports in a readily useable format. Such copy of the data and reports should be available to the Administration or port State authority as requested" (s. 7.5).

Returning to the *Vessel Pollution and Dangerous Chemicals Regulations* enacted pursuant to the *Shipping Act*, section 111.2 states that if a vessel operates an EGC system:

²⁸ Resolution MEPC.184(59), *2009 Guidelines for Exhaust Gas Cleaning Systems*, adopted July 17, 2009 < [https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/184\(59\).pdf](https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/184(59).pdf) >.

- a. the vessel must hold and keep on board a certificate of type approval certifying that the system meets the applicable requirements referred to in Resolution MEPC.184(59);
- b. the vessel must keep on board an EGC System Technical Manual “Scheme A” that meets the requirements of section 4.2.2 of Resolution MEPC.184(59) or an EGC System Technical Manual “Scheme B” that meets the requirements of section 5.6 of Resolution MEPC.184(59);
- c. the vessel must keep on board a SOx Emissions Compliance Plan that meets the requirements of section 9.1.1 of Resolution MEPC.184(59);
- d. the authorized representative must ensure that the information required by Resolution MEPC.184(59) respecting the operation, maintenance, servicing, adjustments and monitoring of the system is recorded as required by the Resolution; and
- e. the vessel must keep on board the information referred to in paragraph (d) in the form and manner required by Resolution MEPC.184(59).

Other pertinent provisions in the *Vessel Pollution and Dangerous Chemicals Regulations* include Section 4, which defines “prescribed pollutants” as (a) oil and any oily mixture; (b) garbage; and (c) organotin compounds that act as biocides. Sections 30 and 31 authorize the discharge of an oily mixture in certain circumstances. Section 96(1) authorizes the discharge of sewage in certain circumstances. Older vessels (defined as those with a keel laid before May 3, 2007 or delivered before May 3, 2010) are exempted from the sewage regulations, with the exception of vessels in the Great Lakes and St. Lawrence River above Montreal or vessels in a “designated sewage area” (generally pleasure craft mooring areas), which are all subject to the regulation (s. 84). Air pollution, including EGCSs as discussed above, is regulated at Division 6 (ss.108-125). The discharge of “pollutant substances” is prohibited at s. 126 except in certain circumstances, with substances enumerated in Schedule 1 of the regulation. Regulation of greywater discharge is provided for at s. 131.1. The obligation of a ship’s master or operator of an oil-handling facility to report discharge of pollutants is provided for at ss. 132 to 133.

In 2022, Canada introduced “non-mandatory” environmental measures for cruise ships operating in waters under Canadian jurisdiction. The measures recommended that sewage and greywater not be discharged within 3 nautical miles of shore and that any sewage or greywater discharged between 3 and 12 nautical miles from shore should not leave a sheen or residue on the surface. The measures did not apply to discharge of scrubber “washwater”.²⁹

In June 2023, these voluntary measures were made mandatory, when Canada’s Minister of Transport made an *Interim Order Respecting the Discharge of Sewage and*

²⁹ Transport Canada, “New environmental measures for cruise ships in waters under Canadian jurisdiction – 2022 season,” *Ship Safety Bulletin SSB No.:10/2022* (April 12, 2022; modified August 18, 2022) < <https://tc.canada.ca/en/marine-transportation/marine-safety/ship-safety-bulletins/new-environmental-measures-cruise-ships-waters-under-canadian-jurisdiction-2022-season-ssb-no-10-2022-modified-august-18-2022> >.

the Release of Greywater by Cruise Ships in Canadian Waters, pursuant to Section 10.1(1) of the *Shipping Act*. This section authorizes the Minister to introduce an interim order — containing any provision that may be contained in a regulation — if the minister “believes that immediate action is required to deal with a direct or indirect risk to marine safety or to the marine environment.”³⁰ However, like the earlier voluntary measures, the 2023 Interim Order lacks any prohibition on discharge of scrubber washwater by cruise ships operating in Canadian waters.³¹

Local regulations have also been introduced in recent years in some Canadian waters, such as amended guidelines issued in 2022 by the Port of Vancouver, a federal agency, prohibiting the discharge of scrubber washwater while ships are at berth or at anchor. The guidelines apply to open-loop and closed-loop EGC systems and expressly prohibit “bleed-off” from closed-loop systems. However, a prohibition on scrubber discharges from the main engines of vessels has been deferred to a future phase.³² The Port’s decision to introduce the restrictions was strongly influenced by research it commissioned showing impacts of scrubber washwater on local aquatic life.³³

In 2023, the Port of Prince Rupert amended its Port Information Guidelines to prohibit open-loop scrubbers.³⁴ To our knowledge, no similar restrictions have been implemented in other west coast Canadian ports, such as Victoria, leaving a substantial regulatory and enforcement gap that exposes sensitive marine ecosystems to unreasonable risks.

³⁰ *Interim Order Respecting the Discharge of Sewage and the Release of Greywater by Cruise Ships in Canadian Waters*, made June 9, 2023 < <https://tc.canada.ca/en/ministerial-orders-interim-orders-directives-directions-response-letters/interim-order-respecting-discharge-sewage-release-greywater-cruise-ships-canadian-waters> > (accessed October 12, 2023); “Minister of Transport announces mandatory environmental measures for cruise ships,” Government of Canada media release, June 23, 2023 < <https://www.canada.ca/en/transport-canada/news/2023/06/minister-of-transport-announces-mandatory-environmental-measures-for-cruise-ships.html> > (accessed October 12, 2023).

³¹ “Canada’s new cruise ship rules don’t plug loopholes for major source of wastewater pollution,” *Times Colonist*, July 3, 2023; West Coast Environmental Law, “Canada issued a long-awaited cruise ship dumping order, but is it still the cruise ship toilet bowl?,” July 6, 2023 < <https://www.wcel.org/blog/canada-issued-long-awaited-cruise-ship-dumping-order-it-still-cruise-ship-toilet-bowl> > (accessed October 12, 2023).

³² Port of Vancouver, *Port Information Guide* (March 2022), Section 14.5 (“Exhaust gas cleaning system [EGCS] wash water discharge”), page 183; “Restrictions on discharge of scrubber wash water take effect,” March 1, 2022, Port of Vancouver website < <https://www.portvancouver.com/about-us/information-updates/restrictions-on-discharge-of-scrubber-wash-water-take-effect/> > (accessed October 12, 2023).

³³ Port of Vancouver, *Scrubber wash water discharge restrictions: Information package* (November 2021); Golder Associates, *Technical Memorandum: Evaluation of Concentrations of Contaminants in Scrubber Wash Water in Burrard Inlet, BC* (April 28, 2020); Northwest Hydraulic Consultants Ltd., *Final Report: Vancouver Harbour Scrubber Wash Water Impact Assessment* (June 16, 2020).

³⁴ Prince Rupert Port Authority, *Port Information Guide* (January 2023), pp. 96 and 104 < <https://www.rupertport.com/port-information-guide/> > (accessed October 12, 2023); “Prince Rupert Wants to Ban Open-Loop Exhaust Scrubbers on Large Ships to Safeguard Marine Life from Polluted Wastewater,” *West Coast Now*, January 10, 2023 < <https://westcoastnow.ca/2023/01/10/prince-rupert-scrubber-ban/> > (accessed October 12, 2023).

D. Canada's Obligation to Enforce its Fisheries Act Under Article 24.4 of the USMCA

The *USMCA* imposes a prohibition on Canada (as well as on the United States and Mexico) against failing to enforce its own environmental laws.

Article 24.4 of Chapter 24 of the *USMCA* states that:

1. No Party shall fail to effectively enforce its environmental laws through a sustained or recurring course of action or inaction in a manner affecting trade or investment between the Parties, after the date of entry into force of this Agreement.

The *USMCA* came into force on July 1, 2020.

Canada's *Fisheries Act*, RSC 1985, c F-14 is an environmental law pursuant to Article 24.1 of the *USMCA*, which is defined (for Canada) as "an Act of the Parliament of Canada or regulation made under an Act of the Parliament of Canada that is enforceable by action of the central level of government", "the primary purpose of which is the protection of the environment, or the prevention of a danger to human life or health, through:

- (a) the prevention, abatement, or control of the release, discharge, or emission of pollutants or environmental contaminants;
- (b) the control of environmentally hazardous or toxic chemicals, substances, materials, or wastes, and the dissemination of information related thereto; or
- (c) the protection or conservation of wild flora or fauna, including endangered species, their habitat, and specially protected natural areas. ..."³⁵

The definition of environment laws in the *USMCA* expressly includes recognition that "protection or conservation' may include the protection or conservation of biological diversity" and defines "Specially protected natural areas" as "those areas as defined by the Party in its law."³⁶ Exemptions in Art. 24.1 respecting worker safety and management of subsistence or aboriginal harvesting of natural resources are not relevant to the anti-pollution provisions of Canada's *Fisheries Act*.

The prohibition at Article 24.4 is congruent with objectives articulated in Chapter 24 (at Art. 24.2), including to "promote high levels of environmental protection and effective enforcement of environmental laws." This article also states that: "The Parties recognize that the environment plays an important role in the economic, social, and cultural well-being of indigenous peoples and local communities, and acknowledge the importance of engaging with these groups in the long-term conservation of the environment."³⁷

³⁵ *USMCA*, ch. 24, art. 24.1.

³⁶ *USMCA*, ch. 24, art. 24.1, footnotes 1 and 2.

³⁷ *USMCA*, ch. 24, art. 24.2.

The Agreement recognizes “the sovereign right of each Party to establish its own levels of domestic environmental protection and its own environmental priorities, and to establish, adopt, or modify its environmental laws and policies accordingly,” while stating that: “Each Party shall strive to ensure that its environmental laws and policies provide for, and encourage, high levels of environmental protection, and shall strive to continue to improve its respective levels of environmental protection” (Art. 24.3 – Levels of Protection).³⁸

Determination of whether a particular course of action or inaction is “sustained” or “recurring”, and therefore subject to the prohibition at Art. 24.4, is assisted with explanatory text in the footnotes:

a “sustained or recurring course of action or inaction” is ‘sustained’ if the course of action or inaction is consistent or ongoing, and is “recurring” if the course of action or inaction occurs periodically or repeatedly and when the occurrences are related or the same in nature. A course of action or inaction does not include an isolated instance or case.³⁹

A course of action or inaction “is deemed to be ‘in a manner affecting trade or investment between the Parties’ if the course involves: (i) a person or industry that produces a good or supplies a service traded between the Parties or has an investment in the territory of the Party that has failed to comply with this obligation; or (ii) a person or industry that produces a good or supplies a service that competes in the territory of a Party with a good or a service of another Party.”⁴⁰

A Party accused of failing to enforce its environmental laws bears the burden of demonstrating that a purported failure is not in a manner affecting trade or investment between the Parties.⁴¹

Chapter 24 recognizes the right of Parties “to exercise discretion and to make decisions regarding: (a) investigatory, prosecutorial, regulatory, and compliance matters; and (b) the allocation of environmental enforcement resources with respect to other environmental laws determined to have higher priorities” (Art 24.4(2)). A Party is deemed to be in compliance with Art. 24.4(1) if “a course of action or inaction reflects a reasonable exercise of that discretion, or results from a *bona fide* decision regarding the allocation of those resources in accordance with priorities for enforcement of its environmental laws.”⁴²

However, the Agreement expressly recognizes that “it is inappropriate to encourage trade or investment by weakening or reducing the protection afforded in their respective environmental laws. Accordingly, a Party shall not waive or otherwise derogate from, or

³⁸ USMCA, ch. 24, art. 24.3.

³⁹ USMCA, ch. 24, art. 24.4, footnote 3.

⁴⁰ USMCA, ch. 24, art. 24.4, footnote 4.

⁴¹ USMCA, ch. 24, art. 24.4, footnote 5. This footnote states: “For purposes of dispute settlement, a panel shall presume that a failure is in a manner affecting trade or investment between the Parties, unless the responding Party demonstrates otherwise.”

⁴² USMCA, ch. 24, art. 24.4(2).

offer to waive or otherwise derogate from, its environmental laws in a manner that weakens or reduces the protection afforded in those laws in order to encourage trade or investment between the Parties” (Art. 24.4(3)).⁴³ As a result, economic motives for non-enforcement of cruise-ship pollution are not a permissible basis for Canada’s derogation of its environmental enforcement obligations under Chapter 24.

Chapter 24, Article 24.27(1) of the *USMCA* expressly provides for the right of any person of Canada, the United States or Mexico to “file a submission asserting that a Party is failing to effectively enforce its environmental laws.”⁴⁴

E. Evidence of Deposit of Deleterious Substances by Cruise Ships on Canada’s Pacific Coast, including Scrubber Washwater, and Apparent Canadian Inaction

The harmful impact of cruise-ship effluent on fish, other marine species and human health is well documented.

More than 20 years ago, Linda Nowlan and Ines Kwan noted in their study *Cruise Control: Regulating Cruise Ship Pollution on the Pacific Coast of Canada* (2001) that:

“Sewage may have a deleterious effect on fish, by lowering the amount of oxygen in the water. The *Fisheries Act* has been used on numerous occasions to prosecute pollution offences in marine waters from a variety of sources. Yet no prosecutions have been brought against cruise ships to date for violations of the federal *Fisheries Act* in Canada.”⁴⁵

Proliferation of Exhaust Gas Cleaning Systems (“EGCS”s or “scrubbers”) on cruise ships in recent years — implemented by the shipping sector to comply with international obligations regarding air pollution — provide an “alternate” (or “equivalent”) route to compliance. They allow vessel owners to continue burning cheaper, higher-sulphur-content fuel than would otherwise be permitted under MARPOL emission guidelines, particularly IMO 2020, the global regulation mandating the burning of cleaner fuels, and emissions regulations introduced in the North America Emissions Control Area (“ECA”) in 2012.⁴⁶

⁴³ *USMCA*, ch. 24, art. 24.4(3).

⁴⁴ *USMCA*, ch. 24, art. 24.27(1).

⁴⁵ Linda Nowlan and Ines Kwan, *Cruise Control: Regulating Cruise Ship Pollution on the Pacific Coast of Canada* (Vancouver: West Coast Environmental Law, 2021), p. 9. See also James P. Meador, Andrew Yeh, and Evan P. Gallagher, “Adverse Metabolic Effects in Fish Exposed to Contaminants of Emerging Concern in the Field and Laboratory,” *Environmental Pollution*, 236 (May 2018): 850-861; James P. Meador, Andrew Yeh, Graham Young, and Evan P. Gallagher, “Contaminants of Emerging Concern in a Large Temperate Estuary,” *Environmental Pollution*, 213 (June 2016): 254-267; James P. Meador, “Do Chemically Contaminated River Estuaries in Puget Sound (Washington, USA) Affect the Survival Rate of Hatchery-reared Chinook Salmon?,” *Canadian Journal of Fisheries and Aquatic Sciences*, 71, no. 1 (January 2014).

⁴⁶ IMO 2020 (MARPOL Annex VI); IMO, *IMO 2020: Consistent Implementation of MARPOL Annex VI* (2019); United States Environmental Protection Agency, *Designation of North American Emission Control Area to Reduce Emissions from Ships* (March 2010). For a discussion of emissions from maritime transport in North America, see CEC, *Reducing Emissions from Goods Movement via Maritime Transportation in North America* (Montreal, QC: Commission for Environmental Cooperation, 2018).

Scrubbers are installed to reduce costs and increase profits for vessel owners, by avoiding the increased costs of more expensive lower-sulphur fuel.

A consequence of this regulatory loophole is a heightened risk to marine species from cruise-ship operations. Scrubbers remove sulfur dioxides, heavy metals, polycyclic aromatic hydrocarbons (“PAHs”), and other toxins from ships’ air-borne exhaust emissions and put these toxins into the ocean through washwater discharges.⁴⁷

Scientists with the International Council for the Exploration of the SEA (ICES) have described the problem as follows:

“Transferring contaminants from air emissions to the ocean does not mitigate their impact and instead, the use of scrubber systems is creating an emerging global problem. The growing use of scrubbers by ships to meet the reduced sulphur emission limits will yield significant amounts of acidic and contaminated scrubber discharge water. Scrubber discharge water is documented to comprise a cocktail of heavy metals, PAHs and other organic compounds which have not yet been identified. This mixture has demonstrated the potential for substantial toxic effects in laboratory studies, causing immediate mortality in plankton and exhibiting negative synergistic effects. The substances found in scrubber discharge water are likely to have further impacts through bioaccumulation, acidification and eutrophication in the marine environment. While a single ship with an installed scrubber may pose limited, local risk to marine ecosystem health, a global shipping community employing scrubbers to meet air emission limits is of serious concern. The impacts of scrubber discharge water can be completely avoided through the use of alternative fuels, such as distilled low sulphur fuels. Distilled fuels have the added benefit that they remove the threat of heavy fuel oil spills from shipping activities. If the use of distilled fuels is not adopted, then there is urgent need for:

- (1) significant investment in technological advances and port reception facilities to allow zero discharge closed loop scrubber systems;
- (2) improved protocols and standards for measuring, monitoring and reporting on scrubber discharge water acidity and pollutants;
- (3) evidence-based regulations on scrubber water discharge limits that consider the full suite of contaminants.”⁴⁸

The World Wildlife Fund has further noted that: “Washwater is acidic and contains large amounts of heavy metals and polycyclic aromatic hydrocarbons, which can be toxic and have carcinogenic properties. It also reduces the ocean’s ability to buffer climate

⁴⁷ Bryan Comer, Elise Georgeoff and Liudmila Osipova, *Air Emissions and Water Pollution Discharges from Ships with Scrubbers* (Washington, DC: International Council on Clean Transportation, November 2020); Elise Georgeoff, Xiaoli Mao, and Bryan Comer, *A Whale of a Problem: Heavy Fuel Oil, Exhaust Gas Cleaning Systems, and British Columbia’s Resident Killer Whales* (Washington, DC: International Council on Clean Transportation, 2019); Stand, *Covid Pandemic Results in a Cleaner Coast: An Investigation into Unregulated Cruise Ship Pollution in Canada’s West Coast Waters* (2020), p. 12; Erik Stokstad, “Shipping rule cleans the air but dirties the water,” *Science* (May 13, 2021); Richa Syal, “Shipping’s dirty secret: how ‘scrubbers’ clean the air – while contaminating the sea,” *Guardian* (July 12, 2022).

⁴⁸ I.M. Hassellöv et al, “ICES Viewpoint Background Document: Impact from Exhaust Gas Cleaning Systems (scrubbers) on the Marine Environment (Ad Hoc),” *ICES Scientific Reports*, vol. 2, no. 86 (2020), p. 32. See also Erik Ytreberg et al, “Effects of scrubber washwater discharge on microplankton in the Baltic Sea,” *Marine Pollution Bulletin*, 145 (August 2019): 316-324.

change — for every tonne of sulfur dioxide discharged by scrubbers, the ocean will be unable to absorb about half a tonne of carbon dioxide from the atmosphere.”⁴⁹

This warning of the global effects of scrubber washwater discharge was echoed by the International Maritime Organization’s Task Team on Exhaust Gas Cleaning Systems (convened by GESAMP, the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection), which stated in 2019 that: “it was clear that an approach taking into account potential global effects with respect to acidification and eutrophication would put the risk assessment of exhaust gas effluent contaminants into the correct context.”⁵⁰ The task team “identified data gaps in the (eco-)toxicological effects area of the relevant exhaust gas effluents contaminants” and noted substantial uncertainties regarding harms arising from discharge of scrubber washwater:

“In the area of EGCS there exist still many uncertainties: the amount of substances in the exhaust gas was rather small but the number of substances huge, their toxicological (human health) and ecotoxicological (aquatic organisms) effects are in many cases insufficiently known and the behavior in the environment ((bio-)degradation and sorption) was unknown for many substances, etc.”⁵¹

The task team stated that it was “not able to conclude on the risks of EGCS discharges to the marine environment as it identified several uncertainties and data gaps.”⁵² The GESAMP task group did, however, state that: “In terms of total amounts of contaminant discharges through EGCS, it appeared that large scale uses of these systems may lead to deterioration of environmental status, especially in the ecologically vulnerable and sensitive areas such as coastal waters, semi-enclosed seas and also in ports and harbours.”⁵³

Stand Environmental Society (“Stand”) and West Coast Environmental Law (“WCEL”) have also identified the problem of scrubber pollution. The 2022 report *Regulating the West Coast Cruise Industry* describes how: “Vast quantities of washwater are deposited in ocean waters in an attempt to remove sulfur dioxides from the heavy fuel oil combustion exhaust pouring from cruise ship smokestacks. Washwater may sound benign, but it is full of heavy metals and organic compounds that threaten human health and aquatic ecosystems.”⁵⁴

⁴⁹ S. Davin et al. *National Vessel Dumping Assessment: Quantifying the Threat of Ship Waste to Canada’s Marine Protected Areas* (Toronto: World Wildlife Fund, 2022), p. 6.

⁵⁰ GESAMP (Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection), *Exhaust Gas Cleaning Systems: A Roadmap to Risk Assessment* (International Maritime Organization, Sub-Committee on Pollution Prevention and Response, December 2019), p. 14.

⁵¹ GESAMP, *Exhaust Gas Cleaning Systems: A Roadmap to Risk Assessment*, pp. 14 and 91.

⁵² GESAMP, *Exhaust Gas Cleaning Systems: A Roadmap to Risk Assessment*, p. 94.

⁵³ GESAMP, *Exhaust Gas Cleaning Systems: A Roadmap to Risk Assessment*, p. 96.

⁵⁴ Stand and WCEL, *Regulating the West Coast Cruise Industry: Canada at the Low Water Mark: An Investigation into the Regulations for Cruise Ship Pollution along the West Coast from California to Alaska* (Vancouver: Stand AND WCEL, 2022), p. 1; Kevin Jiang, “‘They treat us like a toilet bowl’: Cruise ships dump billions of litres of toxic waste in Canada, report finds,” *Toronto Star*, July 19, 2022. See also Stand, *Covid Pandemic Results in a Cleaner Coast* (2020).

Stand and WCEL have discussed the scale of the problem on Canada's Pacific coast, applying data and analysis from researchers with the International Council for Clean Transportation ("ICCT"):

"[M]ore than a million passengers will arrive on dozens of voyages through the waters off BC on their way to and from Alaska, leaving in their wake more than 31 billion litres of inadequately treated cruise ship pollution laden with fecal coliform, ammonia, heavy metals and polycyclic aromatic hydrocarbons — pollutants that are harmful to human health, aquatic organisms and coastal ecosystems."⁵⁵

Stand and WCEL quantified the volume of sewage, greywater and scrubber washwater discharged from a single cruise ship on the Pacific coast in 2020 (relying on data compiled by Vard Marine Inc. for the World Wildlife Fund):

"A cruise ship the size of the Royal Princess, for instance, owned by Carnival Corporation and one of 30 cruise ships that routinely sail Canadian waters between Vancouver and Alaska, on a one-week voyage dumps more than one million litres of human sewage and 8.7 million litres of highly polluting greywater (from sinks, baths, showers, laundry, galleys, spas, salons, workshops, print and photo shops, dry cleaners and medical facilities) into BC's coastal waters, enough wastewater to fill four Olympic swimming pools. Add to this a potential estimated 200 million litres or so (80 more Olympic swimming pools) of chemical-laden washwater that could be discharged from its fuel system, and they've dumped pollution from one weeklong cruise equivalent to 11 times the volume of all the tanks in the Vancouver Aquarium."⁵⁶

International Council for Clean Transportation research scientists have examined and described the water pollutants emitted from scrubber discharge water on the BC coast:

Regarding water pollutants, we found that all scrubbers — open loop, closed loop, and hybrid — discharge water that is more acidic and turbid than the surrounding water. Additionally, all scrubbers emit nitrates, PAHs, and heavy metals. The acids that scrubbers emit contribute to ocean acidification. Discharge from open-loop scrubbers was typically more acidic than bleed-off water discharges from closed-loop systems. Turbid water degrades water quality and the suspended PM in turbid water can contain PAHs and heavy metals. We found that closed-loop bleed-off water was more turbid than open-loop discharges. We did not have enough information to determine which system — open or closed — emits more nitrates. Discharging nitrates contributes to acidification and can lead to eutrophication.⁵⁷

Applying this research to marine species on the Pacific coast, Stand and WCEL described the impacts of sewage, greywater and washwater discharges as follows:

"Untreated and poorly treated sewage contains large amounts of fecal coliform, nitrogen and phosphorus, and can also contain heavy metals, pharmaceuticals and plastic. Sewage can contribute to eutrophication and algal blooms and pollute filter-feeding shellfish. Sewage solids

⁵⁵ Stand and WCEL, *Regulating the West Coast Cruise Industry*, p. 1; Comer, Georgeoff and Osipova, *Air Emissions and Water Pollution Discharges from Ships with Scrubbers* (2020), p. 4; Georgeoff, Mao, and Comer, *A Whale of a Problem* (2019).

⁵⁶ Stand, *Covid Pandemic Results in a Cleaner Coast* (2020), p. 7; Vard Marine Inc., *Greywater Generation Estimates for the BC Coast, Report #381-000* (17 June 2019).

⁵⁷ Comer, Georgeoff and Osipova, *Air Emissions and Water Pollution Discharges from Ships with Scrubbers* (2020), p. 29; Georgeoff, Mao, and Comer, *A Whale of a Problem* (2019); Erik Stokstad, "Shipping rule cleans the air but dirties the water," *Science* (May 13, 2021).

can cause increased turbidity that can alter the marine habitat on the bottom of the ocean. Sewage is also visually repulsive and can pose health-related hazards for water sports like swimming, scuba diving, and surfing.

Greywater may pose greater threats than sewage discharges due to the greater volumes being dumped into coastal waters. Like sewage, it can contain a variety of toxic chemicals, nutrients, heavy metals, oils, and fecal coliforms and other pathogens. When released into the marine environment, greywater can create harmful algal blooms and dead zones, as well as suffocate fish, crabs, lobsters and sponges. These impacts can have wide-ranging effects, decreasing biodiversity and disrupting food webs.

The largest source by far of marine pollution comes from 31 billion litres of scrubber-created washwater, which contains carcinogenic and other toxic substances, such as polycyclic aromatic hydrocarbons (PAHs) and heavy metals. Like sewage and greywater, exposure to washwater can harm aquatic organisms and food webs. Heavy metals and PAHs are persistent in the marine environment and can accumulate in sediment, which negatively affects bottom-feeders. Even low PAH concentrations can cause liver damage and reduce fertility in fish. Nitrates can increase risk of eutrophication in the summer months when algal bloom and cruise ships schedules overlap.

When released into the ocean, the wide array of toxic substances in these multiple cruise ship water pollution waste streams pose a significant, compounding threat to aquatic wildlife and the habitat and food webs on which they depend, including the recovering but threatened sea otter populations and threatened and critically endangered populations of resident killer whales that live off the coast of British Columbia.”⁵⁸

The ICCT researchers provide a further detailed analysis of toxin-laden scrubber washwater discharged from cruise ships in the critical habitat of the endangered Resident Killer Whale (“RKW”) population in the Great Bear Sea, Kwakwaka’wakw Sea and Salish Sea between the Ports of Prince Rupert, Vancouver, Victoria, and Seattle:

In 2017, washwater discharges totaled 35 million tonnes. About 10% of discharges occurred within RKW critical habitat, even though, geographically, these habitats represent only 0.6% of the study area. In 2017, HFO use and washwater discharges were mainly from cruise ships, with container ships a distant second (Figure 8). Cruise ships accounted for 23, or 77%, of the 30 ships with scrubbers in 2017. They emitted 31 million, or nearly 90%, of the 35 million tonnes of washwater discharged in the region (Figure 9). Cruise ships often sail through the Johnstone Strait, leading to high washwater discharges inside the northern RKW critical habitat. When cruises leave Victoria, washwater discharges occur within the southern RKW critical habitat.

By 2020, we predict a 35% increase in total scrubber washwater discharges to about 47 million tonnes. Washwater discharges within RKW critical habitat is expected to grow by 45% to nearly 5 million tonnes by 2020. We predict HFO use and washwater discharges to increase from 2017 to 2020 for container ships and bulk carriers (Figure 9). Additionally, we expect some ship types that were not outfitted with scrubbers in 2017 to start using them, including roll-on/roll-offs, oil and chemical tankers, general cargo ships, and others.

Under an extreme scenario, washwater discharges nearly quadruple from 2017, reaching more than 130 million tonnes in total, with 18 million tonnes in RKW critical habitat. Container ships,

⁵⁸ Comer, Georgeoff and Osipova, *Air Emissions and Water Pollution Discharges from Ships with Scrubbers* (2020); Georgeoff, Mao, and Comer, *A Whale of a Problem* (2019); Stand, *Covid Pandemic Results in a Cleaner Coast* (2020), p. 13.

cruise ships, and bulk carriers discharge the greatest quantities of washwater in the extreme case.⁵⁹

The ICCT researchers described the impacts of the washwater on the endangered Resident Killer Whales as follows:

“[E]ven with scrubbers, ships will continue to emit air and climate pollution emissions such as particulate matter, sulfur oxides, nitrogen oxides, black carbon, and carbon dioxide. As a consequence, ships with scrubbers will continue to pose both direct and indirect risks to aquatic wildlife, including threatened and endangered species such as RKWs. Unfortunately, British Columbian killer whales are already considered the most contaminated marine mammal species in the world, as measured by polychlorinated biphenyl (PCB) concentrations, which increases their risk for toxic effects (Ross, Ellis, Ikonomou, Barrett-Lennard, & Addison, 2000). ...

Polycyclic aromatic hydrocarbons and heavy metals are of particular concern for marine mammals. Even if ships discharge low concentrations of these contaminants, they accumulate in the environment and bioaccumulate in the food web. Over time, pollutant concentrations will increase, especially in shallow, coastal areas where dilution is limited and vessel traffic is high (Endres et al., 2018). Exposure to PAHs and heavy metals has been linked to negative health outcomes for other marine mammal species, such as beluga whales and pinnipeds. These effects are generalized to killer whales due to the similar physiological processes of marine mammals (Ross, 2000). Additionally, synergistic effects of exposure to scrubber washwater could be important. Researchers at IVL Swedish Environmental Research Institute suggested the combined effects of exposure to washwater contaminants on zooplankton, which form the basis of the food web for many species, may be dramatically different than the effect of exposure to only one pollutant (Magnusson et al., 2018). ...

PAHs are persistent organic pollutants, which means they resist biodegradation. When RKWs eat contaminated fish, PAHs are stored in the RKWs' fat reserves, including their protective blubber layer (Formigaro et al., 2014). When RKWs draw upon their fat reserves for energy, problems can occur. PAHs damage DNA, which can cause cancer (Munoz & Albores, 2011). On the east coast of North America in the St. Lawrence estuary, high PAH concentrations in Beluga whales corresponded to higher rates of digestive tract cancers (Martineau et al., 2002).

Heavy metals are naturally occurring elements found in the earth's crust. Some heavy metals are essential nutrients at lower concentrations, such as copper, zinc, and iron, while others, such as lead, mercury, and cadmium, are toxic in any amount. Heavy metals are neither biodegradable nor water soluble. They can bioaccumulate in tissues of animals, including the fish that RKWs eat. While Orcas, including RKWs, have proteins that bind and detoxify mercury, these capabilities are limited, and when mercury levels are high, they can bypass the proteins and cause toxicity (Buckman et al., 2011).

Heavy metals accumulate in the liver, bone marrow, and kidneys (Dosi, 2000). Stored heavy metals are released during pregnancy, lactation, migration, and when food is scarce (Marsili et al., 2001). With Chinook salmon fisheries declining, especially in southern British Columbia waters, nutritional stress is causing RKWs to tap into their blubber resources, releasing these stored pollutants (Fisheries and Oceans Canada, 2018b). Exposure to toxic compounds including PAHs and heavy metals were coincident with cancers in populations of beluga whales in the St. Lawrence River (Guise, Lagacé, & Béland, 1994). Besides carcinogenic effects, chronic intake of heavy metals suppresses the immune system (Kakuschke & Prange, 2007.). Exposure to copper, mercury, and lead has been associated with reproductive dysfunction, difficulty locating prey, and poor metabolism in marine mammals (Jakimska, Konieczka, Skóra, & Namiesnik, 2011).⁶⁰

⁵⁹ Georgeoff, Mao, and Comer, *A Whale of a Problem* (2019), p. 18.

⁶⁰ Georgeoff, Mao, and Comer, *A Whale of a Problem* (2019), pp. 19–20.

Impacts of scrubber washwater on marine life were recently examined by the Port of Vancouver, in reports commissioned from Northwest Hydraulic Consultants (in 2019) and Golder Associates (in 2020). According to the port authority:

To better understand the environmental impacts of scrubber wash water discharge at the Port of Vancouver, in 2019, we commissioned a study in Burrard Inlet, which showed that scrubber wash water discharge could result in concentrations of metals that exceed thresholds set for the protection of aquatic life. ...

To further assess the environmental and aquatic impacts of scrubber wash water discharge to the marine environment, the port authority commissioned Golder Associates to evaluate potential contaminant levels in the wash water (Golder Associates Ltd., 2020). ...

The estimated levels of contaminants in Burrard Inlet were compared to provincial and federal marine aquatic life guidelines. The federal Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines and the BC Water Quality Guidelines for the Protection of Aquatic Life provide threshold levels to protect aquatic life and their habitat from pollution from human (or “anthropogenic”) inputs. The guidelines are numerical limits based on scientifically defensible toxicological data available for the parameter of interest. Guideline values are meant to protect all forms of aquatic life and all aspects of the aquatic life cycles, including the most sensitive life stages of the most sensitive species, over the long term. Water quality guidelines provide the basis for the water quality assessment and help inform our management decisions. ...

The model showed that the areas of Burrard Inlet with low tidal currents and high potential for larger wash water discharge volumes were near Canada Place and the Centerm, Vanterm, Neptune and Lynnterm terminals. Higher wash water concentrations were predicted in these areas due to high vessel traffic and lower tidal currents and dispersion. High wash water concentrations were also predicted in the Port Moody arm due to the limited circulation and tidal currents.

The model and water quality assessment predicted that contaminant concentrations in the areas mentioned above could exceed marine aquatic life guidelines for metals (e.g., cadmium, chromium, copper, nickel, zinc, mercury, vanadium, selenium) and for polycyclic aromatic hydrocarbon (PAH) compounds (e.g., naphthalene, chrysene) under the worst-case scenario with 100% of vessels operating scrubbers (case 2). Under the modelled scenario with only 30% of cruise and container vessels and 10% of other vessels operating scrubbers (case 1), contaminant levels were also predicted to be above marine aquatic life guidelines for similar metals and PAH compounds (e.g., cadmium, copper, mercury, nickel, selenium, zinc, vanadium and naphthalene). ...

Although concentrations of wash water discharge from vessels at anchorage are not anticipated to be above aquatic life guidelines, there are contaminants in the wash water (e.g., metals, hydrocarbons, sulfurous and nitrous acids, and turbidity) that can contribute to long-term contaminant loading to the marine environment. ...

The model results indicate that contaminant levels of some metals and PAH compounds could be above aquatic life guidelines in Burrard Inlet, after one month of discharge of scrubber wash water. Metals and hydrocarbon compounds can accumulate in sediment and/or bioaccumulate (or build-up) in the food web. For example, PAH compounds are known to bioaccumulate and impact the health of marine mammals, such as killer whales. Accumulation of these compounds in sediment can also effect lower trophic species (e.g., benthic invertebrates) that live in the sediment and provide food for fish and other marine life.

The cumulative effects of long-term wash water discharge have not been evaluated, nor have current conditions been assessed at the areas of highest deposition (i.e., Canada Place,

Centerm, Vanterm, Neptune and Lynnterm terminals). If, for example, metals or PAH levels are already elevated in water or sediment in these areas, the addition of these parameters may reach toxic levels more quickly and could result in contaminated water and/or sediments over time.⁶¹

While the United States has taken action to curb marine pollution from cruise ships along the Pacific coast — at both the federal level through prosecutions initiated by the US Environmental Protection Agency (“EPA”) as well as through state regulations and enforcement in Alaska, Washington State and California — Canada lags far behind, largely vacating the field to “voluntary compliance.”⁶²

Stand and WCEL discussed this problem in their 2021 report, noting that “Canada’s cruise ship pollution regulations have lagged behind the regulations in other places”:

“When the federal government adopted the Vessel Pollution and Dangerous Chemicals (VPDC) Regulations in 2012, they were already the weakest protections against cruise ship pollution on the West Coast of North America from California to Alaska. Neighboring jurisdictions in Washington State and Alaska had recognized the threat of a rapidly expanding cruise ship industry more than a decade earlier, and passed a suite of laws and regulations that held cruise ship operators accountable for the vast amounts of water pollution these floating cities create on their voyages up and down the West Coast.”⁶³

Even in the United States where environmental regulation and enforcement is stronger, research has shown that cruise-ship operators consistently perform below the required minimum standards for sewage and waste-water treatment:

“[T]he use of outdated or poorly maintained marine sanitation devices on ships does not mean adequate sewage treatment. The U.S. EPA found that sewage treated with this antiquated technology often contains significant amounts of fecal bacteria, heavy metals, and nutrients in excess of federal water quality standards. A study conducted by the State of Alaska found treated blackwater (sewage) and greywater samples to have registered fecal coliform levels as high as 9 to 24 million colonies per 100 millilitre sample, which exceeds the United States limit by 10,000 to 100,000 times. Of the 22 ships involved in the study, none were in full compliance with blackwater standards and 75% exceeded the American coliform standard.”⁶⁴

⁶¹ Port of Vancouver, *Scrubber wash water discharge restrictions: Information package* (November 2021), pp. 1, 6 and 7; Northwest Hydraulic Consultants Ltd., *Final Report: Vancouver Harbour Scrubber Wash Water Impact Assessment* (June 16, 2020); Golder Associates, *Technical Memorandum: Evaluation of Concentrations of Contaminants in Scrubber Wash Water in Burrard Inlet, BC* (April 28, 2020).

⁶² See US EPA, *Cruise Ship Discharge Assessment Report, EPA842-R-07-005* (Washington, DC: US EPA, December 29, 2008); Claudia Copeland, *Cruise Ship Pollution: Background, Laws and Regulations, and Key Issues* (Washington, DC: Congressional Research Service, November 2008); US EPA, *Graywater Discharges from Vessels, EPA-800-R-11-001* (Washington, DC: US EPA, November 2011). For examples of Alaska’s regulatory approach, see Alaska Department of Environmental Conservation, *2019 Annual Compliance Report Cruise Ship Wastewater* (February 2020); Alaska Department of Environmental Conservation, *2019 Ocean Ranger Annual Report* (December 2019).

⁶³ Stand and West Coast Environmental Law, *Regulating the West Coast Cruise Industry*, p. 1.

⁶⁴ Stand, *Covid Pandemic Results in a Cleaner Coast* (2020), p. 10; Karen Gorecki and Bruce Wallace, *Ripple Effects: The Need to Assess the Impacts of Cruise Ships in Victoria, B.C.* (Victoria: Vancouver Island Public Interest Research Group, 2003) < <https://creansociety.ca/publications/2017/3/16/ripple-effects-the-need-to-assess-the-impacts-of-cruise-ships-in-victoria-bc> >.

In comparison with other jurisdictions, including jurisdictions in the United States, Canadian law does little to prevent pollution of the marine environment by cruise ships operating along the Pacific coast. This legislative gap was explained more than two decades ago in the study *Cruise Control: Cruise Control: Regulating Cruise Ship Pollution on the Pacific Coast of Canada* (2001):

“The US and Alaskan governments have recognized the importance of environmental protection to the continued development of the cruise ship market and have developed an extensive set of regulatory requirements to effectively monitor and restrict cruise ship pollution.

These regulations include the newly passed Alaskan Commercial Passenger Vessel Regulation and Fees law developed after a voluntary pollution control program was shown to be ineffective in the face of growth in the cruise industry.

Tighter restrictions were also imposed in the US after evidence of the industry’s poor environmental record were made public. Between 1993 and 1998, there were 104 American prosecutions against cruise ships for pollution offences. Prosecutions resulted in over \$30 million (US) dollars in corporate fines.

... Where controls and regulations exist in the United States none exist in Canada: there are no standards for grey water discharge and no general prohibitions on untreated sewage discharge. American standards for hazardous and solid wastes are considerably stronger than Canadian standards.”⁶⁵

In 2017, the U.S. Department of Justice ordered Carnival’s Princess Cruise Lines to pay a \$40 million fine — the largest ever — when five Princess Cruise Line vessels were caught illegally dumping oil-contaminated waste for nearly a decade, tampering with pollution monitoring equipment, and falsifying logs to hide its actions.⁶⁶

Stand has noted that: “Dozens of Carnival’s pollution-generating cruise ships, including the *Westerdam*, use Victoria’s cruise terminal as a stopover on their journeys between Seattle, Washington, and Ketchikan, Alaska.”⁶⁷ Records maintained as part of litigation between the US Environmental Protection Agency and Princess Cruise Lines show problems with EGC systems aboard ships that call at the Port of Victoria, such the *Ruby Princess* (which called at Victoria 17 times in 2022) and the *Noordam*.⁶⁸

In contrast to enforcement action in the United States, the Government of Canada appears to relegate protection of the marine environment through “voluntary

⁶⁵ Linda Nowlan and Ines Kwan, *Cruise Control: Regulating Cruise Ship Pollution on the Pacific Coast of Canada* (Vancouver: West Coast Environmental Law, 2021), pp. 3-4.

⁶⁶ United States Department of Justice, “Cruise Line Ordered to Pay \$40 Million for Illegal Dumping of Oil Contaminated Waste and Falsifying Records,” April 19, 2017 < <https://www.justice.gov/opa/pr/cruise-line-ordered-pay-40-million-illegal-dumping-oil-contaminated-waste-and-falsifying> >; Stand, *Covid Pandemic Results in a Cleaner Coast* (2020), p. 8. See also Nowlan and Kwan, *Cruise Control*, p. 7.

⁶⁷ Stand, *Covid Pandemic Results in a Cleaner Coast* (2020), p. 8.

⁶⁸ Exhibit A, “January 6, 2021 Quarterly Issue Tracker,” pp. 38, 40, in *United States v. Princess Cruise Lines, Ltd.*, 1:16-cr-20897 (S.D. Fla.); Greater Victoria Harbour Authority, “2022 Cruise Ship Schedule – Ogden Point, Victoria, BC” < <http://www.victoriacruise.ca/page/cruise-schedule> > (accessed October 4, 2022).

compliance” by industry — an approach that has been shown to produce unsatisfactory results and which fails to uphold the public interest in protecting marine ecosystems.

As noted above, Transport Canada introduced voluntary measures for cruise ship discharges — the *Pollution Prevention Guidelines for the Operation of Cruise Ships Under Canadian Jurisdiction* (2013) — which according to Stand permitted Carnival and other cruise-ship operators “to treat B.C.’s beautiful and sensitive marine ecosystems as the world’s largest tourist toilet bowl.”⁶⁹ These voluntary measures were strengthened to an extent in near-shore areas in 2022, but did not apply to scrubber washwater. When Canada made these voluntary measures mandatory in June 2023, the Minister’s interim order continued to exempt harmful scrubber washwater discharges.

In 2022, approximately 370 ships arrived at Ogden Point at the Port of Victoria, BC — as the total number of ships calling at Victoria each year nearly doubled over the proceeding decade.⁷⁰

The weak statutory and regulatory regime in Canada is particularly troubling in light of its international obligations to protect the marine environment as outlined above.

Returning to Canada’s obligations under the *US-Mexico-Canada Agreement* (2020) and the problem of scrubber pollution, we note the obligation of parties (including Canada) to ensure that truthful information is available regarding products that purport to improve environmental performance. Pursuant to Article 24.14(3), Canada should ensure that any voluntary mechanisms for the promotion of products to improve environmental performance — including EGCSs — are “are truthful, are not misleading, and take into account relevant scientific and technical information” and “are based on relevant international standards, recommendations, guidelines, or best practices, as appropriate.”⁷¹

F. Ecological Values of the Marine Environment of the Pacific Coast and the Need for Transnational Action and Cooperation, including Action by Canada

The Commission for Environmental Cooperation (the “CEC”) (created through *NAFTA* and continued under the *USMCA*), has authored or commissioned a number of studies highlighting the ecological values of the marine environment of the Pacific Coast and the need for transnational state action to protect these values from multiple risks.

In its study on *Ecological Regions of North America: Toward A Common Perspective* (1997), the CEC noted that the Marine West Coast Forest ecological region “has some

⁶⁹ Stand, *Covid Pandemic Results in a Cleaner Coast* (2020), p. 9.

⁷⁰ Stand, *Covid Pandemic Results in a Cleaner Coast* (2020), p. 9; “Victoria’s Cruise Ship Conundrum,” *Capital Daily*, December 2, 2019 < <https://www.capnews.ca/news/cruise-ship-victoria-ogdenpoint-carbon-climate> > (accessed February 3, 2023); Greater Victoria Harbour Authority, “2022 Cruise Ship Schedule – Ogden Point, Victoria, BC” < <http://www.victoriacruise.ca/page/cruise-schedule> > (accessed October 4, 2022).

⁷¹ *USMCA*, ch. 24, art. 24.14(3).

of the most productive rivers for salmon production and there are many important estuaries.” The study noted that the region’s “marine environments are typified by large numbers of whales (including the killer whale), sea lions, seals and dolphins. Salmon, steelhead and associated spawning streams are located throughout this area. Coastal up-welling and freshwater discharge from coastal rivers into ocean waters stimulate the occurrence of abundant marine life.”⁷²

The CEC further noted that:

“Issues regarding water quality standards, biological criteria, and non-point source pollution control have become major concerns in recent years. Like other aspects of ecosystem quality, problems involving aquatic ecosystems do not recognize political boundaries. Typically, water quality-related problems are dealt with on a watershed or river basin level. Although basin boundaries are important to identify as areas that influence the quality and quantity of water at a point on a river, many resource management agencies, at both the national and regional levels, recognize that the areas having the most effect on the quality and quantity of water do not correspond to basin boundaries.

Whereas watersheds and basins merely define topographic drainage areas (where that is possible), ecological regions encompass the spatial similarities of combinations of characteristics that cause or reflect differences in the quality, health and integrity of ecosystems. As such, ecological regions have been shown to be effective for structuring water resource regulatory programs and for biological monitoring. ... Ecological regions also provide a critical mechanism for dealing with water quality problems and the assessment and management of aquatic ecosystems on an international scale.⁷³

With respect to human impacts on ecosystems, the CEC stated that: “Anthropogenic inputs to the ecosystems, such as fertilizer or pesticides, often vary from one political unit (county, state, province or country) to another and may lead to degradation of water quality.”⁷⁴

Stand has described the biological diversity of the Salish Sea and Great Bear Sea ecoregions as follows:

“This includes Puget Sound, the Strait of Juan De Fuca, and the Strait of Georgia, a unique transboundary marine ecosystem known by Indigenous Peoples and the geographic boards of both Canada and the U.S. as the Salish Sea. It is home to the endangered southern resident killer whale population and the declining chinook salmon population on which they depend. Cruise ships also sail through the Johnstone Strait into the Great Bear Sea, another of B.C.’s unique marine ecosystems, where a threatened population of sea otters and the threatened northern resident killer whale population eke out an existence alongside dwindling salmon populations.”⁷⁵

⁷² Commission for Environmental Cooperation, *Ecological Regions of North America: Toward A Common Perspective* (Montreal: Commission for Environmental Cooperation, 1997), p. 23.

⁷³ Commission for Environmental Cooperation, *Ecological Regions of North America: Toward A Common Perspective* (1997), p. 42.

⁷⁴ Commission for Environmental Cooperation, *Ecological Regions of North America: Toward A Common Perspective* (1997), p. 42.

⁷⁵ Stand, *Covid Pandemic Results in a Cleaner Coast* (2020), p. 8.

To safeguard the vital marine resources and values of the Salish Sea, Kwakwaka'wakw Sea and Great Bear Sea ecoregions, transnational efforts concerning pollution from cruise ships and other vessels are required.⁷⁶ The CEC has noted that transnational, ecosystem-based approaches “are essential in evaluating environmental-economic conflicts arising from the demands of society over time.”⁷⁷ Transnational ecosystem-based action is particularly important in the context of climate change, which as the Government of Canada has noted is impacting natural and human systems in profound ways: “Changing climate is increasingly affecting the rate and nature of change along Canada’s highly dynamic coasts, with widespread impacts on natural and human systems.”⁷⁸

Approaching the problem of cruise-ship pollution through a transnational ecoregion and water-management lens is necessary and overdue. Cooperation between Canada and the United States on water and watershed management planning, environmental degradation detection, monitoring, regulation and enforcement — with encouragement from the CEC — can mitigate further damage and risks to ecological values and human health, including supporting survival and recovery of the Southern Resident Killer Whale (“SRKW”) population and other species at risk.⁷⁹

Joint action by the United States and Mexico on water and marine pollution in the Tijuana-San Diego metropolis since the 1990s is instructive in identifying an effective strategy to mitigate risks facing the marine environment within the Salish Sea, Kwakwaka'wakw Sea and Great Bear Sea ecoregions, including risks posed by cruise-ship pollution.⁸⁰

The CEC has identified “Reducing Pollution from Maritime Transport” as a cooperative project and strategic priority, stating that: “The marine transport of trade between Canada, Mexico, and the United States, and with global trading partners, supports our economies and well-being. It also produces high levels of pollution that impact our air and water quality and the health of our communities.”⁸¹

⁷⁶ For a discussion of this kind of a binational planning and management approach, see Commission for Environmental Cooperation, *Ecological Regions of North America: Toward A Common Perspective* (1997), p. 46.

⁷⁷ For a discussion of this kind of a binational planning and management approach, see Commission for Environmental Cooperation, *Ecological Regions of North America: Toward A Common Perspective* (1997), p. 46.

⁷⁸ D.S. Lemmen et al, eds., *Canada’s Marine Coasts in a Changing Climate* (Ottawa: Government of Canada, 2016), p. 3.

⁷⁹ The Southern Resident Killer Whale (Whale, Killer [Orcinus orca] Northeast Pacific southern resident population) is listed as an Endangered Species under Schedule 1, Part 2 of the *Species at Risk Act*, SC 2002, c 29

⁸⁰ Richard Wright, Kathryn Ries, and Alain Winckell. Eds, *Identifying priorities for a Geographic Information System (GIS) for the Tijuana River Watershed*: (San Diego: Institute for Regional Studies of the Californias, San Diego State University, 1995); Commission for Environmental Cooperation, *Ecological Regions of North America: Toward A Common Perspective* (1997), pp. 45-46.

⁸¹ CEC, *Operational Plan of the Commission for Environmental Cooperation 2017-2018* (Montreal, QC: CEC, 2017), p. 3.

Canada has taken preliminary steps toward transnational action to support survival and recovery of the SRKW population, including establishing the Contaminants Technical Working Group (TWG) in 2018, led by Environment and Climate Change Canada and consisting of officials from several federal government departments as well as agencies in British Columbia and Washington State. In 2020, the TWG identified “gaps for SRKW recovery, with respect to the threat of contaminants” and recommended implementation of “further controls to reduce the threat of contaminants.” The TWG also recommended that partner agencies: “Make informed decisions that take into account available scientific data.”⁸² To our knowledge, further regulatory controls to reduce the threat of contaminants to SRKWs from vessel pollution have not been developed or implemented by Canada.⁸³

Stand strongly endorses effective joint action by Canada and the United States to reduce marine pollution from cruise ships operating along the Pacific coast and to protect vital ecosystems and endangered species in the Salish Sea, Kwakwaka’wakw Sea and Great Bear Sea ecoregions.

Conclusion

In conclusion, Stand.earth submits that Canada is in breach of its obligations under the *US-Mexico-Canada Agreement (2020)*, *MARPOL* and other international instruments to prevent pollution of the marine environment, including from cruise ships operating along the Pacific coast, particularly with respect to Canada’s obligation to effectively enforce Section 36(3) of its *Fisheries Act*, RSC 1985, c F-14.

We therefore request that the Commission initiate an investigation pursuant to Articles 24.4 and 24.27 of Chapter 24 of the *USMCA* into Canada’s failure to effectively enforce Section 36(3). In making this complaint, Stand seeks to: (1) hold Canada accountable to its international commitments under the *USMCA*, (2) ensure a fair regulatory environment, and (3) prevent unlawful and harmful pollution of marine ecosystems by cruise ships and other vessels using exhaust gas cleaning systems (“scrubbers”) to circumvent international emission-control regulations — particularly cruise ships operating in the sensitive Canadian and transnational waters of the Salish Sea, Kwakwaka’wakw Sea and Great Bear Sea ecoregions along the Pacific coast.

Initiating an investigation into Canada’s non-enforcement of its domestic environmental laws would help to prevent further harm to these sensitive ecosystems, while also addressing unfair competition that favours commercial operators in Canadian waters and ports to the detriment of operators in the more stringent regulatory environments of Alaska, Washington State and California — jurisdictions that appear to be in compliance with the letter and spirit of the *USMCA* and other international instruments.

⁸² Government of Canada, *2020 Southern Resident Killer Whale Contaminants Technical Working Group Accomplishment Highlights and Recommendations* (Updated June 23, 2021).

⁸³ Government of Canada, *Southern Resident Killer Whales Contaminants Technical Working Group – 2022 Recommended Actions on Contaminants* (updated December 13, 2022).

We note the express provision in Article 24.4(3) of the *USMCA* that “it is inappropriate to encourage trade or investment by weakening or reducing the protection afforded in their respective environmental laws.”⁸⁴ Economic motives for non-enforcement of scrubber pollution are not a permissible basis for Canada’s derogation of its environmental enforcement obligations under Chapter 24.

We trust the information contained in this letter is sufficient to support the Commission in initiating an investigation into Canada’s decision to not effectively enforce its *Fisheries Act* to prevent scrubber pollution in the coastal waters of Canada.

Please let us know if we can be of further assistance in supporting the Commission in exercising its important mandate.

Sincerely,

A black rectangular redaction box covering the signature of Benjamin Isitt.

Benjamin Isitt, BA, MA, LLB, PhD (Hist.), PhD (Law)
Barrister and Solicitor
Counsel for Stand.earth

cc. Paolo Solano Tovar, Director, Legal Affairs and Submissions on Enforcement Matters, Commission for Environmental Co-operation

Attachments:

1. Letter from Stand.earth to the Honourable Steven Guilbeault, April 12, 2023
2. Letter from the Honourable Steven Guilbeault to Stand.earth, August 18, 2023

⁸⁴ *USMCA*, ch. 24, art. 24.4(3).