



Information on Increased Cruise Ship Traffic in Georgian Bay

Georgian Bay Association | 2024

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Executive Summary:

The purpose of this report is to investigate several topics regarding the cruise ships that are visiting Georgian Bay:

1. Information on the cruise line/ship including capacity/size, environmental initiatives/policies, and on-board black water, greywater, and bilge water (and ballast if applicable) treatment
2. Information regarding the ports they stop at in Georgian Bay including facilities/ services provided, frequency of visits and dockage/anchorage of the ships
3. Information on the regulations and policies regarding the discharge/removal and treatment of blackwater, greywater, and bilge water (and ballast if applicable)

This information was gathered by contacting the cruise ship lines, municipalities, ports, and other organizations, and researching the policies provided by the government, cruise lines and additional organizations.

In the 2023 season, 4 cruise lines (6 ships total) came through Georgian Bay and visited several ports. The cruise lines are Viking Cruises Canada (Viking Octantis & Viking Polaris), Pearl Sea Cruises (Pearl Mist), Ponant (Le Dumont D'urville & Le Bellot) and Hapag Lloyd (Hanseatic Inspiration). The ports within Georgian Bay that these various ships may dock or anchor at are:

- Killarney/ Frazer Bay (12 total visits)
- Little Current (information unavailable)
- Parry Sound (30 total visits)
- Midland (information unavailable)
- Tobermory (8 total visits)

It was determined through correspondence that none of the ships discharged their blackwater (sewage) and/or greywater at these ports. None of the ports take garbage and recycling, but it was noted that a 3rd party service could remove garbage / recycling if required (depending on international garbage laws).

Through correspondence with the cruise lines or representatives we were able to determine if the cruise ships had on-board treatment systems for blackwater and how their greywater was collected/treated. This information was not readily available online and therefore there are certain topics that we were unable to determine (this has been noted in the full report). The onboard treatment systems for blackwater and greywater for the individual cruise ships are:

- Viking Cruises Canada
 - Blackwater: Advanced wastewater treatment system
 - Greywater: no information available
- Pearl Seas Cruises
 - Blackwater: Evac ORCA Type II MSD
 - Greywater: all greywater is collected, and some is commingled with the blackwater and treated through the system above. There is no separate greywater treatment system, but it was undetermined how the non-commingled greywater is treated/discharged.
- Ponant
 - Blackwater: no information available
 - Greywater: no information available
- Hapag Lloyd
 - Blackwater: Biological sewage treatment plants
 - Greywater: no information available

There are several laws, regulations and policies that the cruise ships that enter Georgian Bay follow. We specifically looked at those regarding blackwater and greywater discharge/treatment:

- International Convention for the Prevention of Pollution from Ships (MARPOL) Annex IV Prevention of Pollution by Sewage from Ships (entered into force 27 September 2003)
- Canada Shipping Act (2001): Vessel Pollution and Dangerous Chemicals Regulations

It was determined that there are no designated sewage areas in Georgian Bay / Ontario¹ and no blackwater can be discharged into Georgian Bay unless the following requirements are met²:

- Discharge is passed through a marine sanitation device² and effluent has a fecal coliform count that is equal to or less than 250/100 mL²
- Effluent does not cause a film/sheen or discoloration to the water or shoreline²
- Effluent does not cause a deposit beneath the water or on the shoreline²

Fecal coliform is a subgroup of total coliform and E.coli is a subgroup of fecal coliform³. Fecal coliform units (each unit represents a cluster of fecal coliform bacteria) is measured and is used as an inexpensive indicator that the body of water may have recently been contaminated with human waste which could possibly pose a health risk³. The standard for fecal coliform for drinking water quality in Ontario is not detectable / 100 mL⁴.

The standard for fecal coliform for recreational water quality standards in Canada is equal to or less than 200 E. coli/ 100 mL⁵ (90% of fecal coliform are E. coli)⁶.

There are additional environmental policies and regulatory bodies that these cruise ships abide by which vary from Great Lakes Water Quality Agreement, Cruise the Great Lakes Sustainability Pledge and the Great Lakes Cruise Association.

Through this information-gathering report we were able to conclude several questions of concern, which were:

- There are no designated sewage areas in the Great Lakes
- No cruise ship discharges their blackwater at any of these ports
- 4 of the 6 cruise ships were able to confirm on-board treatment systems
- There are several laws and policies to regulate the discharge of treated blackwater

An area of concern that still remains in question is the storage, treatment and discharge of greywater on these cruise ships. This information was not readily available and the laws under the Canada Shipping Act were also unclear regarding cruise ships under 500 passengers. The GBA will continue to follow up with Transport Canada and advocate for clear regulations regarding the discharge of greywater.

Purpose/ Introduction:

The Georgian Bay Association (GBA) is committed to understanding the happenings on Georgian Bay and sharing this information with our membership. Recently, there has been an increase in cruise ships visiting Georgian Bay (40% from 2022)⁷. This increase raised interest within the Georgian Bay Association to understand the regulations and impact on the natural environment. The report will cover information from the cruise lines, Transport Canada and other outside resources. The topics covered as listed below:

- Cruise Line information
 - Number of different lines
 - Capacity of ships
 - General information/Environmental Policies
- Port information
 - Location of ports/municipalities
 - Frequency of stops
 - Blackwater and greywater pump out capabilities
 - Garbage disposal capabilities

- Wastewater and greywater
 - Designated Sewage Areas
 - Regulations / Laws
 - On board treatment/disposal of blackwater/greywater

The GBA believes that the Bay should be shared with everybody responsibly (cottagers, locals, campers, boaters, tourists, and now cruise attendees). In addition to sharing the Bay, we understand that most of the local economies rely on summer activities and that the addition of cruise ships helps the local tourist economy.

Cruise Line information:

Ships details:

In the 2023 season there were 6 ships from 4 cruise line companies that passed through Georgian Bay. The size and capacities of the ships ranged from 59 ft by 430 ft and 184 guests to 77 ft by 665 ft and 378 guests. Each cruise line has different travel packages which vary in duration, route and ports. More information can be found below within the table and by visiting the cruise line websites.

	<i>Viking Cruises Canada</i>	<i>Pearl Seas Cruises</i>	<i>Ponant</i>	<i>Hapag Lloyd</i>
Ships	- Viking Octantis - Viking Polaris	- Pearl Mist	- Le Dumont D’urville - Le Bellot	- Hanseatic Inspiration
Capacity	- Viking Octantis: 378 guests - Viking Polaris: 378 guests	- 210 guest	- Le Dumont D’urville: 184 guests - Le Bellot: 184 guests	- 230 guests

	<i>Viking Cruises Canada</i>	<i>Pearl Seas Cruises</i>	<i>Ponant</i>	<i>Hapag Lloyd</i>
Size	- Viking Octantis: Length 665 feet & Beam 77 feet - Viking Polaris: Length 665 feet & Beam 77 feet	- Information unavailable on website	- Le Dumont D'urville: Length 430 ft & Beam 59 ft - Le Bellot: Length 430 ft & Beam 59 ft	- Length 452 ft & Beam 72 ft
Trip Packages (with stops in Georgian Bay)	- Great Lake Collections - Great Lakes Explore	- 7-Night Great Lakes and Georgian Bay - 11-Night Great Lakes and Georgian Bay - Great Lakes Explorer - St. Lawrence Seaway and Great Lakes	- A Voyage Along the Great Lakes – with Smithsonian Journeys - Expedition in the heart of the American Great Lakes	- Great Lakes - North America's scenic shores - Great Lakes - masterpieces of nature
Website	vikingcruisescanada.com	pearlseascruises.com	ponant.com	hl-cruises.de

Cruise Line Sustainability / Environmental Policies

Each of the cruise lines have sustainability / environmental policies which were available online or provided by a representative. The topics covered variety by cruise line. We specifically looked for wastewater (blackwater and greywater) policies. Hapag Lloyd provided information about blackwater treatment on their website. Pearl Seas Cruises did not provide blackwater treatment information on their website. They are part of the Great Lakes Sustainability Pledge, which includes blackwater treatment, and this information was provided by a representative. Viking Cruises Canada did not provide blackwater treatment information on their website, a representative provided the information. Ponant did not provide blackwater treatment information on their website and the GBA was unable at this time to get in contact with a representative. Below is the information provided via the website or a representative regarding sustainability, wastewater, greywater, garbage disposal and bilge or ballast water.

	<i>Viking Cruises Canada</i>	<i>Pearl Seas Cruises</i>	<i>Ponant</i>	<i>Hapag Lloyd</i>
Sustainability	<p>Viking Cruises Canada provide a statement that covers:</p> <ul style="list-style-type: none"> - best travel practices - scientific research (involving preserving wildlife & freshwater ecosystems) - preserve & support the places visited <p>Find more here: Responsible Travel</p>	<p>Pearl Seas Cruises is part of the Cruise the Great Lakes and follow their Sustainability Pledge:</p> <ul style="list-style-type: none"> - Destination Stewardship - Air quality / Carbon emissions - wastewater <p>Find more here: “Sustainability Pledge”</p>	<p>Ponant has six sustainability commitments which include:</p> <ul style="list-style-type: none"> - nitrogen and sulphur oxide emissions - CO² emissions - Single use plastics - Waste - Scientific research - Marine Protected Areas <p>Find more here: More Sustainable tourism & 2022 Sustainability Development Report</p>	<p>Hapag Lloyd provided a statement that covers:</p> <ul style="list-style-type: none"> - protecting the environment - variety of smaller and larger-scale measures - design modifications that help reduce consumption to technical solutions that decrease air emissions <p>Find more here: Environmental Management</p>
Wastewater	<p>There was no specific information on the cruise line website regarding the removal and treatment of black water and greywater.</p> <p>The following information regarding wastewater treatment was found through personal correspondence:</p> <ul style="list-style-type: none"> - “The design requirements mandated 	<p>There was no specific information on the cruise line website regarding the removal and treatment of black water and greywater.</p> <p>The following information is from the Cruise the Great Lakes sustainability pledge:</p> <ul style="list-style-type: none"> - Discharging wastewater only to shore treatment facilities 	<p>There was no specific information on the cruise line website regarding the removal and treatment of blackwater and greywater</p> <p>*information request out to confirm that greywater is also treated</p>	<p>Information available on the Hapag Lloyd website:</p> <ul style="list-style-type: none"> - Biological sewage treatment plants clean the wastewater produced on board. - Only clear water is pumped back into the ocean; any sewage sludge is appropriately disposed of on shore.

	<p>by Arctic cruise ships which will not allow waste of any liquid or solid form to be discharged from the ship into the environment”⁸</p> <p>- “Our expedition ships that navigate the Great Lakes feature a variety of state-of-the-art waste management features—including an advanced wastewater treatment system, a ballast water treatment system and zero emissions waste treatment through a revolutionary incinerator process.”⁹</p> <p>- “Our expedition ships operate in accordance with all applicable international and Canadian legislation; as such, no untreated water is discharged to sea.”⁹</p>	<ul style="list-style-type: none"> - No unlawful discharge of wastewater to surface water - Complying with International Maritime Organization’s (IMO) International Convention for the Prevention of Pollution from Ships (MARPOL) <p>Find more here: “Sustainability Pledge”</p> <p>And the following information was provided through personal correspondence:</p> <ul style="list-style-type: none"> - The treatment plant for blackwater is and Evac ORCA Type II MSD.¹⁰ 		
<p>Greywater</p>	<p>There was no specific information on the cruise line website regarding the removal and treatment of greywater</p>	<p>There was no specific information on the cruise line website or in the Cruise the Great Lakes sustainability pledge regarding the removal</p>	<p>There was no specific information on the cruise line website regarding the removal and treatment of greywater</p>	<p>There was no specific information on the cruise line website regarding the removal and treatment of greywater</p>

	<p>*information request out to confirm that greywater is also treated</p>	<p>and treatment of greywater.</p> <p>The following information was provided through personal correspondence:</p> <ul style="list-style-type: none"> - All greywater is collected.¹⁰ - Some but not all of the vessel's greywater is commingled with and treated with blackwater. - The vessel does not a separate Greywater Treatment Plant.¹⁰ 	<p>*information request out to confirm that greywater is also treated</p>	
<p>Garbage disposal</p>	<p>There was no specific information on the cruise line website.</p> <p>The following information regarding wastewater treatment was found through personal correspondence</p> <ul style="list-style-type: none"> - Additionally, our ships have onboard trash compacting and recycling centers to minimize the generation of waste and enable environmentally responsible recycling in 	<p>Cruise the Great Lakes</p> <ul style="list-style-type: none"> - Reduce materials and use more sustainable materials - Improving the reusability of materials - Donating discarded materials - hand-sorting trash and storing recyclables onboard - Converting waste into energy where practicable through avenues such as 	<p>Ponant website:</p> <ul style="list-style-type: none"> - Rolling out its “Zero Plastic” policy on all its ships. - a ban on single-use plastic water bottles across the fleet - installation of systems to produce drinking water from seawater. - Ensure reuse and traceability of all waste - works collaboratively with all service providers 	<p>There was no specific information on the cruise line website.</p>

	approved shore facilities. ⁹	repurposing food waste into energy for onboard use and recycling hot water to heat passenger cabins	and ports to ensure recyclable waste are being recycled and reused. - pilot project with the Port of Ushuaia to ensure the selective sorting and recovery of each category of waste.	
Bilge water and/or Ballast water	<p>There was no specific information on the cruise line website.</p> <p>The following information regarding wastewater treatment was found through personal correspondence</p> <p>- “Our expedition ships that navigate the Great Lakes feature a variety of state-of-the-art waste management features—including an advanced wastewater treatment system, a ballast water treatment system...”⁹</p>	<p>There was no specific information on the cruise line website or in the Cruise the Great Lakes sustainability pledge</p>	<p>There was no specific information on the cruise line website.</p>	<p>There was no specific information on the cruise line website.</p>

Ports / Municipalities on Georgian Bay:

The following table outlines the cruise line trip packages that include stops within Georgian Bay. Not all the cruise ships stop at each port and the total number of stops varies between ports. It is important to understand that due to the location some of the cruise ships are able to come into port and dock while there's much anchor out and ferry into the municipalities. It was determined that none of the cruise ships discharge their blackwater or garbage at these ports. The information was provided by representatives of the municipalities.

	Killarney / Frazer Bay	Little Current	Parry Sound	Midland	Tobermory
<i>Cruise Line Package stops</i>	- Viking Cruises (two trip packages) - Hapag Lloyd (two trip packages) - Ponant (one trip package) *2024	- Pearl Seas Cruise (one trip package) - Ponant (one trip package)	- Viking Cruises (two trip packages) - Pearl Seas Cruise (four-trip package) - Ponant (two trip package) - Hapag Lloyd (two trip packages)	- Pearl Seas Cruise (four-trip package) - Ponant (one trip package)	- Hapag Lloyd (two trip packages)
<i>Anchorage or Dock</i>	Anchorage (all)	No information available online & at this time unable to make contact	Anchorage: Viking, Ponant & Hapag Lloyd Dock: Pearl Seas	Depends on size	Anchorage (all)
<i>Frequency of stops per season (2023)</i>	Total: 12 Octantis: 7 Polaris: 4 Hapag Lloyd: 1	No information available online & at this time unable to make contract	Total: 30	No information available online & at this time unable to make contract	Total: 8

	Killarney / Frazer Bay	Little Current	Parry Sound	Midland	Tobermory
<i>Estimated frequency of stops per season (2024)</i>	Total: 14 Octantis: 7 Polaris: 4 Ponant: 1 Hapag Lloyd: 2	No information available online & at this time unable to make contact	Total 33	No information available online & at this time unable to make contact	Total: 12
<i>Pump Out Facilities</i>	n/a	No information available online & at this time unable to make contact	Information not provided	No information available online & at this time unable to make contact	n/a
<i>Cruise Lines that discharge blackwater at Port</i>	No	No information available online & at this time unable to make contact	No	No	No
<i>Cruise Lines that discharge greywater at Port</i>	n/a	No information available online & at this time unable to make contact	Information not provided	n/a	n/a
<i>Garbage Disposal Facilities</i>	Information not provided	No information available online & at this time unable to make contract	No, but third-party services could be used	No	No
<i>Cruise Lines that dispose garbage at Port</i>	Information not provided	No information available online &	Information not provided	n/a	n/a

	Killarney / Frazer Bay	Little Current	Parry Sound	Midland	Tobermory
		at this time unable to make contract			

Wastewater and Greywater:

On board treatment / disposal

	Viking Cruises Canada [website]	Pearl Seas Cruises [website]	Ponant [website]	Hapag Lloyd [website]
On-board Treatment (blackwater)	Yes - Advanced wastewater treatment system, a ballast water treatment system...” ⁹	Yes - The treatment plant for blackwater is an Evac ORCA Type II MSD. ¹⁰	Unable to determine Information request sent	Yes - Biological sewage treatment plants clean the wastewater produced on board. - Only clear water is pumped back into the ocean; any sewage sludge is appropriately disposed of on shore.
Greywater	Information request sent	- All greywater is collected ¹⁰ - Some but not all of the vessel’s greywater is	Information request sent	

		commingled with and treated with blackwater ¹⁰ - The vessel does not have a separate Greywater Treatment Plant.		
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Designated Sewage Areas

A major concern that came up with the presence of cruise ships in Georgian Bay and the Great Lakes in general was the discharge of blackwater in designated sewage areas. A Designated Sewage Area was described as an area 12 nautical miles offshore (ships larger than 400 tons) where untreated black water was able to be discharged¹¹. We were able to determine that there are no designated sewage areas within Ontario or the Great Lakes (including Georgian Bay)¹ and that “With some exceptions, the discharge of untreated sewage into all Canadian inland waters and Canadian coastal waters within 3 nautical miles of land (ships less than 400 tons) and 12 miles of land (ships larger than 400 tons) is now banned. Treated sewage will only be allowed to be discharged into Canadian waters subject to specified limits of fecal coliforms per 100 ml of water¹¹. Adoption of these requirements permitted Canada to accede to Annex IV of MARPOL.”¹¹

Blackwater & greywater discharge regulations

Under the Canada Shipping Act (2001) Vessel Pollution and Dangerous Chemicals Regulations (SOR/2012-69) Division 4 Subdivision 5 discusses the prohibitions of sewage/sewage sludge discharge and the expectations². The cruise ships that are visiting Georgian Bay fall under section 96 (1) (a) for authorized discharge because there are no designated sewage areas in Georgian Bay¹. Under this it was determined that authorized discharge can occur if:

- Discharge is passed through a marine sanitation device and effluent has a fecal coliform count that is equal to or less than 250/100 mL²
- Effluent does not cause a film/sheen or discolouration to the water or shoreline²
- Effluent does not cause a deposit beneath the water or on the shoreline²

The discharge of greywater under Canada Shipping Act (2001) Vessel Pollution and Dangerous Chemicals Regulations (SOR/2012-69) Division 9 we were unable to determine what the greywater discharge regulations are for vessels under 500

passengers¹². Under these regulations (for vessels with more than 500 passengers) any release of greywater must meet these requirements:

- Passed through a marine sanitation device¹²
- A distance of at least three nautical miles from shore¹²

The Interim Order “Interim Order Respecting the Discharge of Sewage and the Release of Greywater by Cruise Ships in Canadian Waters” was published June 09, 2023. This interim order has two changes regarding the release of blackwater (sewage) and greywater at 3 to 12 nautical miles offshore; it is unclear if this interim order applies to cruise ships in the Great Lakes¹³.

Under this a cruise ship must not discharge sewage if the ship is more than three but not more than 12 nautical miles from shore, an ice shelf or fast ice unless:

- the discharge is passed through a marine sanitation device that meets the requirements of section 90 of the Regulations and the effluent has a fecal coliform count that is equal to or less than 14/100 mL¹³;
- the sewage does not contain any visible solids and the discharge does not cause¹³
 - a. a film or sheen, and discoloration of the water or its shorelines, or¹³
 - b. sewage sludge or an emulsion to be deposited beneath the surface of the water or on its shorelines¹³;

And a cruise ship must not release greywater if the ship is more than three but not more than 12 nautical miles from shore unless¹³:

- the release is passed through a marine sanitation device that meets the requirements of section 90 of the Regulations and the effluent has a fecal coliform count that is equal to or less than 14/100 mL¹³;
- the release does not result in a deposit of solids in the water or leave a sheen on the water¹³;
- And the release does not cause a discoloration of the water or its shorelines or an emulsion to be deposited beneath the surface of the water or on its shorelines¹³.

This applies to cruise ships that, on the day this Interim Order takes effect, is equipped with an installation that allows for the treatment of greywater along with sewage using a marine sanitation device¹³.

Regulations and Policies

Transport Canada / Canada Shipping Act

Canada Shipping Act, 2001

<p>Vessel Pollution and Dangerous Chemicals Regulations (SOR/2012-69).</p>	
<p>DIVISION 4 Sewage</p> <p>SUBDIVISION 5 Discharges of Sewage or Sewage Sludge</p>	<p>Prohibition</p> <p>95) A person or vessel must not discharge sewage or sewage sludge except in accordance with section 96 or in the circumstances set out in section 5 that apply in respect of the discharge.</p> <p>Authorized discharge</p> <p>96 (1) For the purposes of section 95, sewage may be discharged if</p> <p>(a) in the case of a vessel in an area other than a designated sewage area, the discharge is passed through a marine sanitation device and the effluent has a fecal coliform count that is equal to or less than 250/100 mL;</p> <p>....</p> <p>(2) In addition to the circumstances set out in paragraphs (1)(a) and (b) and subparagraphs (1)(c)(ii), (d)(ii) and (e)(i), the sewage may be discharged only if it does not contain any visible solids and the discharge does not cause</p> <ul style="list-style-type: none"> (a) a film or sheen to develop on the water; (b) a discoloration of the water or its shorelines; or (c) sewage sludge or an emulsion to be deposited beneath the surface of the water or on its shorelines.
<p>DIVISION 9 Greywater</p>	<p>New passenger vessels</p> <p>(5) The authorized representative of a new passenger vessel that is carrying more than 500 passengers must ensure that any release of greywater by or from the vessel into the water</p> <p>(a) is passed through a marine sanitation device that meets the requirements of section 90; or</p> <p>(b) is made at a distance of at least three nautical miles from shore.</p>

Transport Canada / Canada Shipping Act

Canada Shipping Act, 2001	
Interim Order Respecting the Discharge of Sewage and the Release of Greywater by Cruise Ships in Canadian Waters	
Prohibitions	<p>Discharge of sewage</p> <p>3 (1) A cruise ship and its authorized representative must not discharge sewage if the ship is three nautical miles or less from shore, an ice-shelf or fast ice.</p> <p>Discharge at more than 3 to 12 nautical miles</p> <p>(2) A cruise ship and its authorized representative must not discharge sewage if the ship is more than three but not more than 12 nautical miles from shore, an ice-shelf or fast ice unless</p> <ul style="list-style-type: none"> B. the discharge is passed through a marine sanitation device that meets the requirements of section 90 of the Regulations and the effluent has a fecal coliform count that is equal to or less than 14/100 mL; C. the sewage does not contain any visible solids; D. the discharge does not cause <ul style="list-style-type: none"> a. a film or sheen to develop on the water, b. a discoloration of the water or its shorelines, or c. sewage sludge or an emulsion to be deposited beneath the surface of the water or on its shorelines; E. the discharge is made as far as feasible from areas of ice concentration exceeding 1/10; and F. in the case of a discharge made in arctic waters, it is made at a moderate rate while the cruise ship is en route at a speed of at least four knots.
Prohibitions	<p>Release of greywater</p> <p>4 (1) A cruise ship and its authorized representative must not release greywater if the ship is three nautical miles or less from shore, an ice-shelf or fast ice.</p> <p>Release at more than 3 to 12 nautical miles</p>

	<p>(2) A cruise ship and its authorized representative must not release greywater if the ship is more than three but not more than 12 nautical miles from shore unless</p> <ul style="list-style-type: none"> A. the release is passed through a marine sanitation device that meets the requirements of section 90 of the Regulations and the effluent has a fecal coliform count that is equal to or less than 14/100 mL; B. the release does not result in a deposit of solids in the water or leave a sheen on the water; and C. the release does not cause a discoloration of the water or its shorelines or an emulsion to be deposited beneath the surface of the water or on its shorelines.
<p>Prohibitions</p>	<p>Exception</p> <p>(3) Paragraph (2)(a) applies only to a cruise ship that, on the day this Interim Order takes effect, is equipped with an installation that allows for the treatment of greywater along with sewage using a marine sanitation device.</p>

International Maritime Organization

<p>International Convention for the Prevention of Pollution from Ships (MARPOL)</p>	
<p>Adoption: 1973 (Convention), 1978 (1978 Protocol), 1997 (Protocol - Annex VI); Entry into force: 2 October 1983 (Annexes I and II).</p>	
	<p>International requirements for the prevention of pollution from sewage are contained in the Vessel Pollution and Dangerous Chemicals Regulations in Annex IV of the International Convention for the Prevention of Pollution from Ships (MARPOL). Annex IV of MARPOL contains requirements for surveys, International Sewage Pollution Prevention Certificates, sewage treatment plants, discharging sewage, reception facilities and standard discharge connections and came into force on September 27, 2003.</p> <p>Canada has acceded to Annex IV and adopted regulations concerning sewage pollution prevention in Division 4 – Sewage – of the Vessel Pollution and Dangerous Chemicals Regulations. These provisions replace the previous Great Lakes Sewage Pollution Prevention Regulations, Pleasure Craft Sewage Pollution Prevention Regulations and Non-Pleasure Craft Sewage Pollution Prevention Regulations. The regulations are a consolidation of the former</p>

	<p>regulatory requirements, the recommendations of a stakeholder working group established by Transport Canada Marine Safety, and the requirements of Annex IV of MARPOL.</p> <p>Annex IV of MARPOL applies only to ships of 400 tons gross tonnage or more or certified to carry over 15 persons. The application has been expanded in the regulations to include all vessels in all Canadian waters and to all Canadian vessels everywhere. Previous regulations concerning sewage applied to ships, other than pleasure craft, only on the Great Lakes and to all vessels in a few areas designated for zero discharge. In Ontario, application includes pleasure craft under provincial legislation.</p> <p>Section 86 of the regulations requires that a vessel has a toilet on board to have a holding tank or an approved marine sanitation device. With some exceptions, the discharge of untreated sewage into all Canadian inland waters and Canadian coastal waters within 3 nautical miles of land (ships less than 400 tons) and 12 miles of land (ships larger than 400 tons) is now banned. Treated sewage will only be allowed to be discharged into Canadian waters subject to specified limits of faecal coliforms per 100 ml of water. Adoption of these requirements permitted Canada to accede to Annex IV of MARPOL.</p>
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Great Lakes Cruise Association

Great Lakes Cruise Association	
The Great Lakes Cruise Association is providing this statement concerning the oversight and regulations for the Canadian cruise industry.	
	<p>All cruise ships entering the Great Lakes and the St. Lawrence River are subject to Federal regulations in both Canada and the United States. These regulations impose health and safety protocols for their safe passage, as well as protecting each of these cruise regions from unwanted pollution. Transport Canada has mandatory regulations, which focus specifically on the disposal of “Black Water and Grey Water” – while Public Health Canada (PHAC) have oversight of all health-related protocols (as evidenced while Covid restrictions were in force). A parallel regulatory environment exists in the United States. Regulatory authorities which have oversight of the cruise industry in Canada are Transport Canada (TC) – Canadian Coast Guard (CCG) – Canada Border Services Agency (CBSA) and Public Health Canada (PHAC).</p>

Great Lakes Water Quality Agreement

Great Lakes Water Quality Agreement [website]	
Annex 5 Discharges from Vessels	<ul style="list-style-type: none"> - Prohibiting the discharge of harmful amounts of wastewater; - Controlling the discharge of sewage;

Cruise the Great Lakes Sustainability Pledge [[website](#)]

Destination Stewardship	<ul style="list-style-type: none"> - Being sensitive and respectful to the character of the ports of call and taking proactive measures wherever possible to maintain a light shoreside footprint - Sourcing food locally wherever possible - Continuing participation in industry collaborations such as the Global Sustainable Tourism Council (GSTC) to help port cities analyze how to manage tourism flows and map out a road map for a sustainable future
Air Emissions & Carbon Reduction	<ul style="list-style-type: none"> - Using shore power where available and supporting shore power installation where not currently available - Continuing research and adaptation of alternative fuels where practical, including liquified natural gas, biofuels, and synthetic fuels, paired with exhaust gas cleaning systems for ships that use fossil fuel technologies - Working toward the goal established by the Cruise Lines International Association in 2018 of a 40% reduction in the rate of carbon emissions across the cruise industry's global fleet by 2030 - Using ecological, non-toxic, slick hull paint coatings, which have been estimated to improve fuel efficiency by five percent, where practicable - Using advanced materials in ship applications such as advanced strength-enhanced steel, providing energy savings through reducing ship weight and providing a more hydrodynamic surface - Installing tinted windows, high-efficiency appliances, and HVAC systems, and windows that capture and recycle heat reduce energy use from heating and air conditioning - Switching to LED lights, which use 80 percent less energy and last 25 times longer than previous lighting systems, or other efficient lighting solutions - Using solar panels for emissions-free energy where practicable - Supporting research and development of carbon-reducing technologies including zero-carbon fuels
Wastewater	<ul style="list-style-type: none"> - Discharging wastewater only to shore treatment facilities where available and continuing to not unlawfully discharge any wastewater to surface water - Complying with regulatory requirements set by the International Maritime Organization's (IMO) International Convention for the

	Prevention of Pollution from Ships (MARPOL)
Recycling	<ul style="list-style-type: none"> - Working with suppliers to reduce materials and use more sustainable materials - Improving the reusability of materials such as opting for aluminum or reusable glass bottles over single-use alternatives - Donating discarded materials to vulnerable communities when practicable - Maximizing onboard recycling by hand-sorting trash and storing recyclables onboard in appropriate facilities until a recycling hub is reached - Converting waste into energy where practicable through avenues such as repurposing food waste into energy for onboard use and recycling hot water to heat passenger cabins

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