

# Strengthen Coastal Wastewater Dumping Regulations for Cruise Ships



via Unsplash

## Executive Summary

Strengthen sewage and greywater discharge standards off the BC coast by revising current legislation to match American standards before the cruise ship industry relaunches in full force.

## What is the issue?

A record number of cruise ships visited the Port of Vancouver in 2019, carrying over 1 million passengers<sup>1</sup> on its way to Alaska. These ships must discharge waste such as sewage and greywater, often into BC waters. To protect BC coasts, discharge standards need to be raised to match or exceed those of US coastal states.

## How big is this issue?

Cruise ships headed to Alaska pass through sensitive marine ecosystems such as the Great Bear and Salish seas. When the cruise ship industry returns in full force, more than 31 billion litres of wastewater will be dumped to take advantage of Canada's relaxed regulations.<sup>2</sup>

Poorly treated wastewater threatens marine organisms and food webs. The risk for eutrophication and algal blooms increases, and heavy metals can accumulate. Cruise ships pass through habitats of endangered and threatened species such as sea otters and resident killer whales.<sup>3</sup>

## What are the current protections?

The Canada Shipping Act is the primary legal control of pollution from vessels. It lays out protection against disposal of hazardous waste such as garbage and dangerous chemicals. In 2013 Transport Canada published the *Pollution Prevention Guidelines for the Operation of Cruise Ships Under Canadian Jurisdiction*, which laid out further protective measures but were non-binding and unenforceable.

## Types of Waste



Human waste, contains fecal bacteria, heavy metals, ammonia. Current laws do not meet US treatment standards.



All other liquid waste, such as from laundry, showers, or kitchens. Contains detergents, solids, oils, and carcinogens. Current laws allow older ships to discharge untreated greywater.

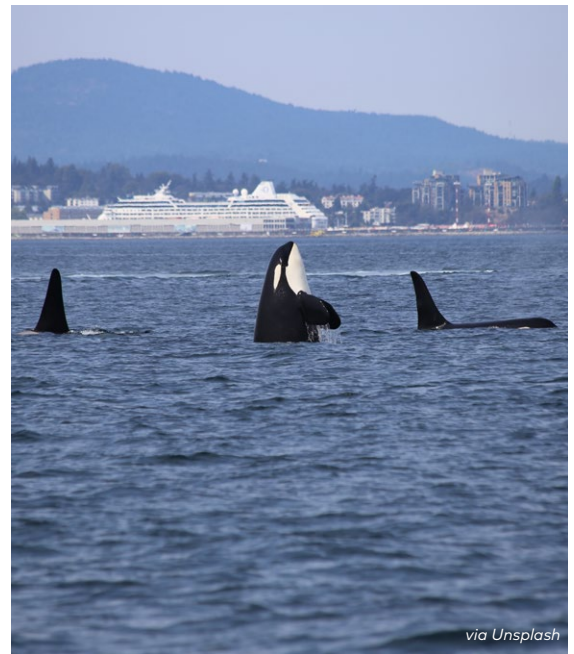


Solid waste such as plastics and food waste. Current laws prohibit dumping garbage.

Overall, Canadian measures lag behind American ones. The State of Alaska's fecal coliform and suspended solids limits for sewage is **18 times stronger** than Canada's<sup>4</sup>. Alaska has also designated areas such as Puget Sound as no-discharge zones. **There are none in BC.**

Many cruise ship operators have voluntarily made environmental commitments. New cruise ships have built-in wastewater treatment systems. However, current regulations allow older ships to rely on less-effective marine sanitation devices.

**Self-regulation has not proved effective.** The US fined Carnival \$40 million in 2017 for illegally dumping oil-contaminated waste and falsifying logs for multiple years<sup>5</sup>. Carnival was fined a further \$20 million in 2019 for breaching its environmental probation terms<sup>6</sup>.



## Policy Recommendations

### Designate no-discharge zones in BC waters

Set clear restrictions against wastewater discharge in **Marine Protected Areas (MPAs)** and **critical habitat** such as the Great Bear Sea for threatened and endangered species. Binding legislation results in strengthened monitoring and enforcement measures that can be implemented.

### Strengthen Canadian regulations to match or exceed American standards

Initiate a new review of the *Pollution Prevention Guidelines for the Operation of Cruise Ships under Canadian Jurisdiction*, which was last reviewed in 2013. Ask Transport Canada regulators to work with American counterparts to **unify standards**, providing vessel operators with a clear set of legally enforceable operating rules for the industry.

### Phase out marine sanitation devices (MSDs)

Close out loophole allowing older ships to use MSDs and require all cruise ships to be fitted with **Advance Wastewater Treatment Systems** to reduce the environmental impact of discharged waste.

Prepared by Owen Yin

#### References

<sup>1</sup>Glen Korstrom. Port of Vancouver claims record year for cruise passengers. Glacier Media Digital. Oct 31, 2019

<sup>2</sup>Stand.Earth. An Investigation into Unregulated Cruise Ship Pollution in Canada's West Coast Waters. July 14, 2020

<sup>3</sup>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." International Council on Clean Transportation. 2019.

<sup>4</sup>Stand.Earth. Regulating The West Coast Cruise Industry: Canada At The Low Water Mark. Feb 3, 2021

<sup>5</sup>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.

<sup>6</sup>Anderson, Curt. Carnival will pay \$20m over pollution from its cruise ships. Associated Press. June 3, 2019