

Welcome to the summarized report for the 2022 season. The goal of the Invasive Mussel Defence Program (IMDP) is to mitigate the risk of introducing invasive zebra and quagga mussels into B.C. Although not present in B.C., the introduction of these two aquatic invasive species could lead to serious impacts to B.C.'s native freshwater ecosystems. Mitigating the risk of invasive mussel introduction and spread continues to be a shared priority across jurisdictions in western Canada and the U.S., and ongoing coordination has been critical for the overall success of the IMDP. Piloted in 2015, the IMDP consists of three main components: watercraft inspections, lake monitoring, and public outreach and education. The lead for IMDP's delivery was transferred to British Columbia's new Ministry of Water, Land and Resource Stewardship (WLRS) on April 1, 2022. The IMDP will continue to be implemented in collaboration with the Ministry of Environment and Climate Change Strategy's Conservation Officer Service (COS).

We would like to recognize the ongoing funding provided by BC Hydro, the Columbia Power Corporation, FortisBC, the Columbia Basin Trust and Fisheries and Oceans Canada (DFO), that makes this program possible. For more information about the IMDP, please visit: www.gov.bc.ca/invasivemussels Suspected invasive mussels should be reported to the COS Report All Poachers and Polluters (RAPP) hotline at 1-877-952-7277.

Watercraft Inspection Stations

The 2022 season was a busy one, with crews completing approximately 20,100 inspections and interacting with more than 36,400 people to promote Clean, Drain Dry practices – a preventative step all boaters should take when moving between lakes in B.C.

During the inspections, 122 watercraft were identified as high-risk, 66 decontamination orders were issued, and 29 watercraft were issued quarantine periods to meet the required drying time. The COS Aquatic Invasive Species inspectors completed 65 decontaminations.

Thirteen watercraft were confirmed to have invasive mussels. These watercraft came from: Ontario (11), Manitoba (1), and Quebec (1). The watercraft were destined for: the Lower Mainland (5), Okanagan (4), Thompson-Nicola (2) and Vancouver Island (2) regions.

The IMDP received advanced notification on 7 of the 13 mussel-fouled boats, either from another jurisdiction or by the Canada Border Services Agency.

AIS inspectors at the Pacific border crossing station inspecting a large commercially hauled watercraft.



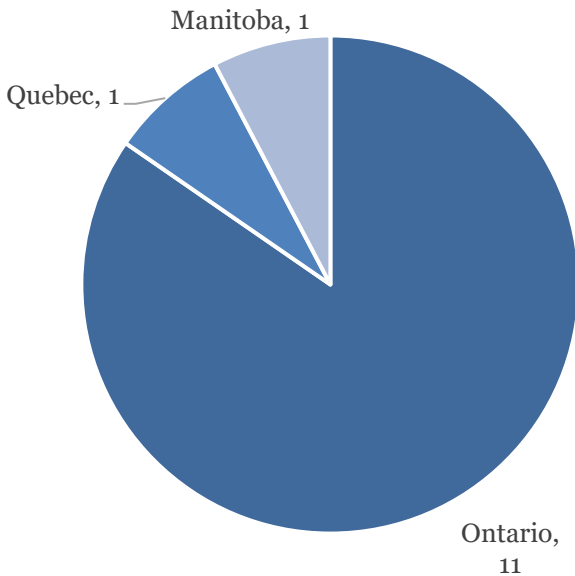
Program Effectiveness

In addition to the mussel fouled boats intercepted this season, another 7 watercraft were identified as being mussel fouled by another jurisdiction and were decontaminated prior to arriving in BC. Upon inspection by the IMDP they were confirmed to be Clean, Drain, Dry. This highlights the effectiveness of the perimeter defence approach and of having multiple layers of protection through the ongoing collaborations with neighbouring jurisdictions.

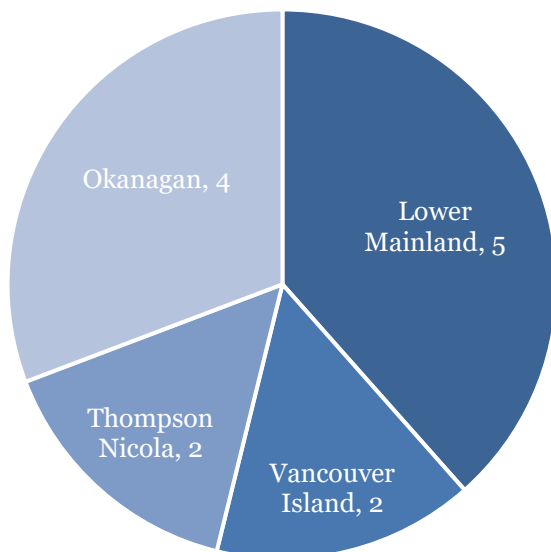
Most inspection stations were operational from April 1st to late October. However the Golden station, Penticton and Lower Mainland roving crews were extended until mid-November. This provided an opportunity to gather data later into the season. As data are still being analyzed for the 2022 season, the complete results will be shared in the final report that will be published in 2023.

The IMDP's total inspections decreased overall relative to the 2021 season (~33,000 inspections). This is consistent with other jurisdictions across the Pacific Northwest which saw similar decreases in overall inspections. This could be due to a combination of reduced operations at some stations relative to 2021 and increased gas prices that occurred throughout most of the 2022 season.

This year, the average compliance rate across all inspection stations was 88%, which is consistent with the 2021 season and it is encouraging to see that compliance levels have remained stable (or increased slightly) in recent years. Of the motorists who failed to stop at an inspection station, 78% had non-motorized watercraft — such as canoes, kayaks and paddleboards — which pose a significantly lower risk of transporting invasive mussels.



THE SOURCE (TOP) AND DESTINATION (BOTTOM) OF 13 WATERCRAFT FOUND WITH INVASIVE MUSSELS IN 2022



Other Program Highlights

COS Aquatic Invasive Species inspectors from the Penticton roving crew participated in a multi-agency enforcement check on Hwy 1 near Kamloops from September 27–29. The IMDP has participated in this event in previous years and it continues to provide a great opportunity for cross agency collaboration while also completing mandatory watercraft inspections at the roadside check.

Lake Monitoring

Lake monitoring is a critical step for the early detection of invasive mussels.

In 2022, grants were administered by the [Habitat Conservation Trust Foundation \(HCTF\)](#) to partner organizations for the collection of water samples in priority waterbodies across the province.

From June until October, ministry staff and partner organizations carried out sampling for invasive mussels. Sampling is conducted following the Provincial [lake monitoring protocol and waterbodies identified in the Provincial priority list](#). All samples are analyzed by a Ministry designated lab.

Despite delays with starting sampling in the spring due to high water flows and cooler temperatures, 830 water samples were collected from 78 priority waterbodies across the province. All samples have tested negative for invasive mussels.

To date, there has been no reported introduction of live zebra or quagga mussels in B.C. waterways.



Above: Sgt. Denny Chretien and K9 Major who are based out of Cranbrook, BC. Photo credit: Nick Nault.

BY THE NUMBERS	2021	2022
TOTAL WATERCRAFT INSPECTED	33,300	20,100
NUMBER OF PEOPLE INTERACTED WITH TO PROMOTE CLEAN, DRAIN, DRY	61,600	36,400
HIGH-RISK INSPECTIONS	244	122
DECONTAMINATION ORDERS ISSUED	100	66
QUARANTINE ORDERS ISSUED	18	29
MUSSEL-FOULED WATERCRAFT	17	13