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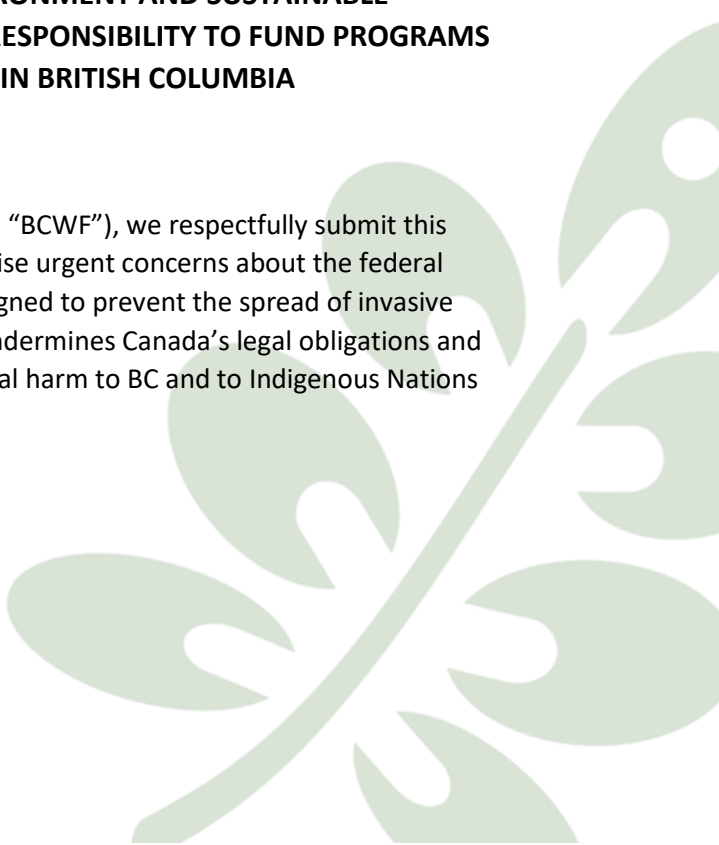
ATTENTION: ENVIRONMENTAL PETITIONS

Dear Mr. DeMarco,

**RE: PETITION TO THE COMMISSIONER OF THE ENVIRONMENT AND SUSTAINABLE
DEVELOPMENT ON THE FEDERAL GOVERNMENT'S RESPONSIBILITY TO FUND PROGRAMS
THAT PREVENT THE SPREAD OF INVASIVE MUSSELS IN BRITISH COLUMBIA**

SUMMARY

On behalf of the British Columbia Wildlife Federation (the "BCWF"), we respectfully submit this petition under section 22 of the *Auditor General Act* to raise urgent concerns about the federal government's lack of sufficient funding for programs designed to prevent the spread of invasive mussels in British Columbia ("BC"). This lack of support undermines Canada's legal obligations and results in significant economic, environmental, and cultural harm to BC and to Indigenous Nations whose lands and waters are directly at risk.



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BACKGROUND: THE URGENT NEED FOR FEDERAL LEADERSHIP ON INVASIVE MUSSEL PREVENTION IN BRITISH COLUMBIA

Zebra and quagga mussels are among the most destructive freshwater invasive species in North America.¹ Most recently, quagga mussels were found in the Snake River in Idaho, a waterway that flows into the Columbia River and directly into BC.² This detection brings these invasive species to the province's doorstep, raising urgent concerns about their potential to establish in BC's waters.

As this background will outline, Indigenous Nations, provincial agencies, and non-governmental organizations are working diligently to prevent the spread of invasive zebra and quagga mussels. These coordinated efforts reflect a shared understanding of the significant environmental and economic harm these species pose. However, it is critical to emphasize that these efforts alone are not sufficient. As detailed later in this petition, the federal government has a legal responsibility to do more, including providing increased and sustained funding to prevent the establishment of invasive mussels in BC's waters. Without this renewed federal leadership and investment, the substantial work already being done by provincial and Indigenous partners risks being outpaced by the scale and speed of this growing crisis.

The ecological impacts of zebra and quagga mussels are well documented and devastating. These mussels alter aquatic ecosystems by over-filtering water, which increases water clarity and sunlight penetration, warming the water and disrupting temperature-sensitive species.³ Their

¹ A.Y. Karatayev et al., "Predicting the spread of aquatic invaders: insight from 200 years of invasion by zebra mussels" (2015) 25:2 *Ecological Society of America* at 430.

² C. Cobin, "So far, Idaho officials have not discovered more invasive quagga mussels" *Idaho Capital Sun* (13 August 2024) <<https://idahocapitalsun.com/2024/08/13/so-far-idaho-officials-have-not-discovered-more-invasive-quagga-mussels/#:~:text=By:%20Clark%20Corbin%20-%20August%2013%2C%202024%204:30%20am&text=On%20Sept.,Waterfront%20Park%20in%20Twin%20Falls.&text=State%20officials%20administered%20a%20copper,GET%20THE%20MORNING%20HEADLINES>>.

³ DFO, *National Aquatic Invasive Species (AIS) Risk Assessment for Zebra Mussel (Dreissena polymorpha) and Quagga Mussel (Dreissena rostriformis bugensis)* (DFO, April 2022).

filtering also depletes plankton levels, starving native species that rely on this food source and destabilizing entire aquatic food webs.⁴ In addition, they contribute to harmful algal blooms and elevate bacterial contamination, including *E. coli*, *Salmonella*, and toxins associated with botulism outbreaks, degrading water quality for both wildlife and human use.⁵ These ecological disruptions are particularly severe when invasive mussels overlap with already vulnerable or at-risk native species, compounding conservation challenges.⁶

Economically, the stakes are also extreme because zebra and quagga mussels pose a major threat to infrastructure and public services. They adhere to and clog water intake pipes, hydroelectric systems, irrigation infrastructure, and water treatment facilities.⁷ Their ability to attach to nearly any wet surface makes them a threat to most aquatic infrastructure.⁸ In Ontario, municipalities spend close to \$9 million annually managing these species; and in the United States, costs exceed \$500 million USD per year.⁹ The Province of British Columbia (the “Province”) has estimated that if zebra or quagga mussels become established in the province, the resulting damage could cost between \$64 million and \$129 million annually, and this is just limited to infrastructure damage.¹⁰ Historical figures from the Great Lakes region indicate total costs in the range of \$2-5 billion.¹¹ These numbers clearly demonstrate that prevention is vastly more cost-effective than post-invasion response.

The primary vector for the spread of zebra and quagga mussels is human activity, particularly through recreational boating.¹² Zebra mussels can survive up to three days out of water and quagga mussels up to 27 days in moist conditions, making boat inspections and decontamination efforts crucial.¹³ The widely recommended approach of cleaning, draining, and drying watercraft has proven effective at removing adult mussels and larvae, reducing the risk of introduction into new water bodies.¹⁴

⁴ E.L. Mills et al, “Lake Ontario: food web dynamics in a changing ecosystem (1970-2000)” (2003) 60:4 *Can J Fisheries and Aquatic Sciences* at 471, as cited in DFO *supra* note 3.

⁵ Pacific Salmon Foundation, “PSF Supports Surveillance of Invasive Mussels” (2 May 2024) <<https://psf.ca/blog/psf-supports-surveillance-of-invasive-mussels/>>; S.N. Higgins et al, “An ecological review of *Cladophora glomerata* (Chlorophyta) in the Laurentian Great Lakes. J. Phycol” (2008) 44:4 *J Phycology* at 839, as cited in DFO *supra* note 3.

⁶ DFO *supra* note 3.

⁷ A.B. Harrison, S.D. Heinz & W.T. Slack, *The Costly Impact of Zebra and Quagga Mussels in the United States Waterways: Hydropower, Navigation, and other industries* (US Army Corps of Engineers, April 2021).

⁸ *Ibid.*

⁹ V. Richard, *Estimated Expenditures on Invasive Species by Ontario Municipalities & Conservation Authorities* (Invasive Species Centre, 2019).

¹⁰ Ministry of Water, Land and Resource Stewardship, *Potential Economic Impact of Zebra and Quagga Mussels in B.C.* (Government of British Columbia, May 2023).

¹¹ B.S. Payne & A.C. Miller, *A probability tree applied to a common zebra mussel dispersal issue*, ANSRP Technical Notes Collection (U.S. Army Engineer Research and Development Center, May 2004), as cited in Y. Wu et al, “A risk-based decision model and risk assessment of invasive mussels” (2010) 7:2 *Ecological Complexity* at 243.

¹² L. Johnson & D. Padilla, “Geographic spread of exotic species: Ecological lessons and opportunities from the invasion of the zebra mussel *Dreissena polymorpha*” (1996) 78:1 *Biological Conservation* at 23.

¹³ Harrison, Heinz & Slack *supra* note 7.

¹⁴ California Department of Water Resources, “Prevent the Spread of Mussels: Clean, Drain, Dry” (2019) <<https://water.ca.gov/News/Blog/2019/May-2019/Prevent-the-Spread-of-Mussels>>; Division of Fisheries and Wildlife, “Help stop the spread of zebra mussels” (n.d.) <<https://www.mass.gov/info-details/help-stop-the-spread-of-zebra-mussels>>; Invasives Canada, “Clean Drain Dry Prevent the Spread of Aquatic Invasive Species” (n.d.) <<https://canadainvasives.ca/programs/clean-drain-dry/>>; The Government of Manitoba, “Clean, Drain and Dry. Why not just decontaminate?” (n.d.)

In response to the growing threat, a number of Indigenous and non-governmental organizations, as well as provincial authorities, have taken action to protect BC's waters. In December 2023, the BCWF sent letters to multiple federal ministers raising concerns about the reduction in federal funding for invasive species prevention.¹⁵ In early 2024, the BCWF urged the provincial legislature to increase its support.¹⁶ On April 18, 2024, the Okanagan Nation Alliance (the "ONA"), which represents the Okanagan Indian Band, Upper Nicola Band, Westbank First Nation, Penticton Indian Band, Osoyoos Indian Band and Lower and Upper Similkameen Indian Bands and the Colville Confederated Tribes, issued a moratorium on boats entering BC from outside the province without inspection certificates.¹⁷ The following month, BCWF and BC Hydro provided over \$1 million in funding to support the Province's Invasive Mussel Defence Program (the "IMDP"), which focuses on early detection, public outreach, and watercraft inspections.¹⁸ In August 2024, the Okanagan Basin Water Board (the "OBWB") called on the Province to pressure the federal government for additional support and proposed the creation of a Western Canada invasive mussel-free zone.¹⁹ Most recently, on April 29, 2025, the Province introduced amendments to the *Wildlife Act* that will require boaters to pull drain plugs, stop at open inspection stations, and undergo inspections prior to launching in BC from other jurisdictions.²⁰ These coordinated efforts are essential, but they cannot succeed without renewed federal engagement and funding to meet the scale of the threat.

Given the national implications of invasive mussel spread and the legal authority the federal government holds, the next section will examine the legal foundations that support this conclusion. It will also detail the statutory and constitutional responsibilities that require greater federal action in the fight against invasive aquatic species.

LEGAL AND POLICY FRAMEWORK

FEDERAL RESPONSIBILITY TO PREVENT THE SPREAD OF INVASIVE MUSSELS

The threat of invasive mussels in BC represents an urgent environmental, economic, and cultural crisis. While the Province and Indigenous Nations are taking meaningful, frontline action, the federal government holds clear and overarching legal responsibility to fund and coordinate prevention efforts across jurisdictions.

<<https://www.gov.mb.ca/stopais/cdd.html#:~:text=Why%20Clean%2C%20Drain%2C%20Dry,the%20cleaning%20and%20draining%20steps>>.

¹⁵ Jesse Zeman, British Columbia Wildlife Federation (13 December 2023) via e-mail [communicated to author].

¹⁶ British Columbia Wildlife Federation, "BCWF demands increased funding to defend our waterways from invasive species" (2024) <<https://bcwf.bc.ca/defend-our-waterways/>>.

¹⁷ Okanagan Nation Alliance, *Tribal Council Resolution: Syilx Strategy to Address the Threat of Invasive Mussels*, 2024, No 519 (18 April 2024).

¹⁸ Ministry of Water, Land and Resource Stewardship, News Release "Province, partners step up fight against invasive mussels" (30 April 2024) <<https://news.gov.bc.ca/releases/2024WLR0019-000622>>.

¹⁹ Blair Ireland, Okanagan Basin Waterboard, "Inter-provincial Coordination to Prevent Invasive Mussels" (28 August 2024) via e-mail [communicated to author].

²⁰ Province of British Columbia, Ministry of Attorney General, *Introduction of miscellaneous statutes amendment act*, 2025, (Victoria: 2025), online: <<https://news.gov.bc.ca/releases/2025AG0020-000342#:~:text=Amendments%20are%20proposed%20under%20the,incluing%20Alberta%2C%20Saskatchewan%20and%20Manitoba>>.

Multiple federal statutes empower and obligate the federal government to prevent the introduction and spread of aquatic invasive species. The first of these statutes is the *Fisheries Act*, which outlines that the federal government is responsible for the conservation and protection of fish and fish habitat in Canada.²¹ The purpose of the *Fisheries Act* is to manage and control fisheries, and to protect and ensure conservation of fish and fish habitat.²² The *Fisheries Act* touches on numerous subjects such as Indigenous peoples, agreements, programs, enforcement, fish stocks, licenses, fees, types of fisheries, prohibitions, habitat protection, offences, and regulations. Various sections of the *Fisheries Act* address the protection of fish habitat.²³

The *Fisheries Act* also contains provisions that allow the Minister of Fisheries and Oceans (the “Minister”) to make regulations; however, many types of regulations, including those concerning aquatic invasive species, must be made by the Governor in Council under the authority of the *Act*.²⁴ Certain sections of the *Fisheries Act* constrain the types of regulations the Minister can create. Specifically, the *Act* authorizes the Governor in Council to make regulations pertaining to aquatic invasive species (“AIS”).²⁵

The *Fisheries Act* is the enabling statute for the *Aquatic Invasive Species Regulations* (the “AISR”), which addresses prohibitions, exemptions, prescribed persons, compliance and enforcement, and the schedule that lists specific AIS as they pertain to the *Fisheries Act* and AISR. Part 2 of the AISR’s schedule lists the zebra mussel and the quagga mussel.²⁶ The AISR prohibits the importation, possession, transportation, release, and introduction of any species listed in Part 2 of the schedule, as well as any other prescribed non-indigenous species.²⁷

If the introduction of an AIS is imminent or in the process of occurring, the AISR allows a fisheries officer to prohibit any activity or to direct a person to cease engaging in any activity that may lead to the introduction of the AIS in a particular region.²⁸ The Minister is empowered to control and issue directions to prevent the spread of AIS, and the AISR contains enforcement provisions.²⁹ However, enforcing these provisions requires sufficient funding.

The Aquatic Invasive Species Protection Fund (the “AISPF”) provides financial support for projects that aim to prevent the introduction and spread of AIS in Canada.³⁰ This fund is administered by Fisheries and Oceans Canada (the “DFO”) under the authority of the *Fisheries Act*, which allows the Minister to develop and support programs and initiatives that advance the *Act*’s purpose.³¹ More specifically, the *Fisheries Act* enables the Minister to create programs and projects to further the statute’s aims, one of which is to prevent the spread of AIS in Canada.³² The AISPF is available for Indigenous organizations, non-government organizations, academics, industry, and municipal

²¹ *Fisheries Act*, RSC 1985, c F-14.

²² *Fisheries Act* at s 2.1.

²³ *Ibid*, ss 6.1(5), 34(1)(a)(b), 34.1, 34.2(1)(a)(b)(3), 34.3(1)(3)(a), 35(1), 35.1(1)(2), 35.2(3)(a), 37(1).

²⁴ *Ibid*, ss 34.3(7), 34.4(4), 35(4), 35.2(4)(10), 36(5.2), 43.3(1).

²⁵ *Ibid*, ss 43(1) and (3).

²⁶ *Aquatic Invasive Species Regulations*, SOR/2015-121 [AISR].

²⁷ AISR, ss 6-10.

²⁸ *Ibid*, ss 22(2)(a)(b).

²⁹ *Ibid*, ss 19(3), s. 22(2) and s. 26(1) & ss 19 to 30.

³⁰ Fisheries and Oceans Canada, “Aquatic Invasive Species Prevention Fund: Step 1: Priorities” (29 May 2023) <<https://www.dfo-mpo.gc.ca/species-especes/ais-eae/funding-financement/overview-description/1-eng.html>>.

³¹ *Fisheries Act*, s 4.4(1).

³² *Ibid*, s 4.4(1), 43(1)(o).

or local governments.³³ The fund's budget is \$8.75 million over five fiscal years 2022/2023 – 2026/2027.³⁴ However, the funding is not distributed equally.

Ontario receives more financial assistance from the AISP than the Pacific region for general initiatives such as decontamination stations, public education, as well as campaigns such as “Decontaminate,” “Don’t Let It Loose,” and “Clean, Drain, Dry.” For example, the projects funded from 2024-2027 show that organizations in the Ontario region received \$1,262,356 while organizations in BC received \$540,000 for the early detection of invasive mussels in BC lakes.³⁵

The federal government also created programs to bolster AIS legislation. It created the Aquatic Invasive Species Program (the “Program”) to manage and prevent the introduction of existing AIS in Canadian waters.³⁶ The program's overall purpose is to administer and enforce AIS legislation.³⁷ The Program aims to promote early detection, response, and management of AIS as well as the administration of the *AISR*.

Other federal statutes such as the *Canada Border Services Agency Act* (the “CBSAA”) also address AIS. The CBSAA states that the Canada Border Services Agency (the “Agency”) is responsible for supporting the administration or enforcement of willing “program legislation,” or federal statutes or instruments that the Governor in Council or Parliament specifically designates for the Agency's enforcement authority.³⁸ One of the major potential vectors for invasive mussels is through boats that have been contaminated in American waters. The CBSAA allows the president of the Agency and the Minister to delegate powers conferred under the designation program legislation, including designating individuals or classes of individuals.³⁹ Likewise, the *Fisheries Act* authorizes the Minister to designate persons as inspectors under the *Act*.⁴⁰ The federal government has exercised this authority: In Manitoba, the DFO and the Agency collaborated on a pilot project to inspect and decontaminate boats at the international border crossing at Emerson, Manitoba. The purpose of this pilot project was to ensure that no AIS such as quagga mussels were present on incoming boats.⁴¹ This collaborative program was renewed three times between 2022 to 2024,

³³ Fisheries and Oceans Canada, “Aquatic Invasive Species Prevention Fund: Step 2. Who Can Receive Funds?” (29 May 2023) <<https://www.dfo-mpo.gc.ca/species-especes/ais-eae/funding-financement/overview-description/2-eng.html>>.

³⁴ Fisheries and Oceans Canada, News Release “Government of Canada Invests in Further Protecting Canada's Waters from Aquatic Invasive Species” (26 May 2023) <<https://www.canada.ca/en/fisheries-oceans/news/2023/05/government-of-canada-invests-in-further-protecting-canadas-waters-from-aquatic-invasive-species.html>>.

³⁵ Fisheries and Oceans Canada, “Aquatic Invasive Species Prevention Fund: Funded Projects” (25 February 2025) <<https://www.dfo-mpo.gc.ca/species-especes/ais-eae/funding-financement/projects-projects/index-eng.html#wb-auto-4>>.

³⁶ Fisheries and Oceans Canada, “Aquatic Invasive Species Program” (1 June 2021) <<https://www.dfo-mpo.gc.ca/transparency-transparence/atip-airp/privacy-privee/invasive-envahissante-eng.html>>.

³⁷ *Ibid.*

³⁸ *Canada Border Services Agency Act*, SC 2005, c 38, s 5(1)(a) [CBSAA].

³⁹ CBSAA, s 9(1).

⁴⁰ *Fisheries Act*, s 38(1).

⁴¹ Fisheries and Oceans Canada, News Release “Government of Canada Pilot Project Adds Layer of Protection from Aquatic Invasive Species at the Border” (30 November 2022) <<https://www.canada.ca/en/fisheries-oceans/news/2022/11/government-of-canada-pilot-project-adds-layer-of-protection-from-aquatic-invasive-species-at-the-border.html>>.

meaning that Agency officers may enforce the *Fisheries Act* and its regulations—but only if the *Fisheries Act* is formally designated as program legislation under the CBSAA.⁴²

The arrival of invasive mussels in BC would have serious implications under the *Species at Risk Act* (the “SARA”), as zebra and quagga mussels pose significant threats to native species, including several already listed as endangered.⁴³ Several aquatic species in BC, such as sturgeon, the speckled dace and the hotwater physa, are already listed as endangered under SARA.⁴⁴ A report by the Committee on the Status of Endangered Wildlife in Canada emphasizes that these species are at heightened risk from invasive or exotic species, especially when reliant on single water systems.⁴⁵ Accordingly, SARA strengthens the legal rationale for aggressive prevention measures.

Invasive species reduce biodiversity and negatively impact species at risk. Canada has committed to conserving 30% of its land and water by 2030 as part of its biodiversity goals. The federal government adopted an international mechanism created by the International Union for the Conservation of Nature called Other Effective area-based Conservation Measures (“OECM”).⁴⁶ OECMs support biodiversity goals by recognizing and establishing a model for landowners and resource managers to steward aquatic and terrestrial ecosystems sustainably.⁴⁷ In a marine context, the DFO established the *Government of Canada Guidance for Recognizing Marine Other Effective Area-Based Conservation Measures*. These guidelines were applied in the context of the Disko Fan Conservation Area. This area is an example of a successful OECM that supports identified species at risk through conservation and biodiversity promotion.⁴⁸ Furthermore, the federal government could use a SARA critical habitat prohibition to establish OECMs. These OECMs would be designated protected areas to prevent the introduction of zebra and quagga mussels within their boundaries.

Despite the clear and far-reaching federal authority under statutes like the *Fisheries Act*, SARA, and the *Canada Shipping Act*, federal funding for AIS prevention remains uneven and insufficient, particularly in BC. This gap in support persists even as the risk of zebra and quagga mussel invasion escalates, threatening species at risk, Indigenous rights, and Canada’s biodiversity targets.

⁴² Fisheries and Oceans Canada, News Release “Government of Canada Concludes Third Successful Watercraft Inspection for Aquatic Invasive Species in Manitoba” (26 November 2024) <<https://www.canada.ca/en/fisheries-oceans/news/2024/11/government-of-canada-concludes-third-successful-watercraft-inspection-for-aquatic-invasive-species-in-manitoba.html>>.

⁴³ Fisheries and Oceans Canada, “Zebra Mussel” (13 September 2023) <<https://www.dfo-mpo.gc.ca/species-especes/profiles-profil/zebramusel-moulezebrée-eng.html#impacts>>; Fisheries and Oceans Canada, “Quagga Mussel” (30 October 2023) <<https://www.dfo-mpo.gc.ca/species-especes/profiles-profil/quaggamusel-moulequagga-eng.html#imp-ecolo>>.

⁴⁴ *Species at Risk Act*, SC 2002, c 29, Schedule 1, Part 2.

⁴⁵ A.L. Smith & J. Robert, *COSEWIC assessment and status report on the Speckled Dace, *Rhinichthys osculus*, in Canada* (Environment and Climate Change Canada, 2017).

⁴⁶ Environment and Climate Change Canada, News Release “Government of Canada recognizing federal land and water to contribute to 30 by 30 nature conservation goals” (9 December 2022) <<https://www.canada.ca/en/environment-climate-change/news/2022/12/government-of-canada-recognizing-federal-land-and-water-to-contribute-to-30-by-30-nature-conservation-goals.html>>.

⁴⁷ Environment and Climate Change Canada, “Other Effective area-based Conservation Measures: Harnessing a Pan-Canadian approach to biodiversity conservation” (29 May 2023) <<https://www.canada.ca/en/environment-climate-change/services/nature-legacy/campfire-stories/harnessing-pan-canadian-approach-biodiversity-conservation.html>>.

⁴⁸ Fisheries and Oceans Canada, “Guidance for recognizing marine Other Effective Area-Based Conservation Measures 2022” (9 December 2022) <<https://www.dfo-mpo.gc.ca/oceans/publications/oecm-amcepz/guidance-directives-2022-eng.html>>.

Although federal programs and pilot projects demonstrate that enforcement and prevention are possible, their limited application and regional disparity highlight a need for consistent national leadership and investment. As the next section will show, BC and Indigenous Nations are taking significant, coordinated action to prevent the spread of invasive mussels. However, without robust and equitable federal funding, these frontline efforts are left to operate with constrained resources, despite the fact that legal responsibility rests squarely with the federal government.

PROVINCIAL EFFORTS: IMPORTANT, BUT INSUFFICIENT ALONE

BC's *Wildlife Act* is the Province's primary statute for managing invasive species, including zebra and quagga mussels. Under the *Act*, the Minister of Water, Land and Resource Stewardship may designate certain harmful non-native species as "controlled alien species" and impose regulations on their possession, transport, and release.⁴⁹ Relying on this authority, the Province enacted the *Controlled Alien Species Regulation*, which prohibits the release or transport of listed AIS into BC waters, whether alive, dead, or at any developmental stage.⁵⁰ Both zebra and quagga mussels are listed under Schedule 4 of the *Regulation*.⁵¹ To support prevention, the Invasive Species Council of BC promotes the "Clean, Drain, Dry" protocol to reduce the risk of spreading invasive species through contaminated watercraft and gear.⁵² Under provincial law, failing to stop at an inspection site can result in a \$345 fine, while failing to remove mussels from a vessel may lead to fines up to \$100,000. Releasing invasive mussels into BC waters carries more severe penalties, with fines between \$2,500 and \$250,000, imprisonment of up to two years, or both, as outlined in the *Wildlife Act*.⁵³

Although BC's *Wildlife Act* and its associated regulations have established clear protocols to identify and control AIS, they are insufficient to address the significant threat posed by zebra and quagga mussels. In 2023, the IMDP intercepted 155 watercraft, 14 of which were confirmed to carry invasive mussels.⁵⁴ Several organizations, including the Pacific Salmon Foundation, the Habitat Conservation Trust Foundation, and the BCWF, have contributed a combined \$150,000 to support the Province's surveillance efforts.⁵⁵ In 2024, BC Hydro further committed to the cause with a five-year agreement to provide \$900,000 annually to fund the IMDP.⁵⁶

⁴⁹ *Wildlife Act*, RSBC 1996, c 488, s 6.5(1).

⁵⁰ Controlled Alien Species Regulation, BC Reg 28/2017, s 1 [CASR].

⁵¹ CASR, Schedule 4.

⁵² Invasive Species Council of BC, "Clean Drain Dry Play Your Part" (n.d.) <<https://bcinvasives.ca/play-your-part/clean-drain-dry/>>.

⁵³ Government of British Columbia, "B.C. watercraft inspection stations" (n.d.) <<https://www2.gov.bc.ca/gov/content/invasive-mussels/bc-watercraft-inspection-stations>>; Government of British Columbia, News Release "Protecting B.C. waters from aquatic invasive species" (20 December 2012) <<https://news.gov.bc.ca/releases/2012FOR0224-002078>>; Government of British Columbia, "Controlled alien species" (44 December 2024) <<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/cas#enforcement>>.

⁵⁴ Pacific Salmon Foundation, "PSF Supports Surveillance of Invasive Mussels" (2 May 2024) <<https://psf.ca/blog/psf-supports-surveillance-of-invasive-mussels/#:~:text=%E2%80%9CThe%20establishment%20of%20invasive%20zebra,habitats%20is%20a%20high%20priority>>.

⁵⁵ *Ibid.*

⁵⁶ *Ibid.*

Despite these efforts, prevention at this scale is expensive; and without sustained support, the risk of infestation remains high. Prevention is far more cost-effective than managing an established infestation, which is why the Province is calling on the federal government for assistance.⁵⁷ While BC and local organizations have worked hard to keep invasive mussels out, the BCWF has emphasized that continued federal funding is essential to keep the IMDP operating.⁵⁸ As outlined in earlier sections, multiple federal statutes establish a responsibility on the federal government to prevent the spread of AIS across Canada—including in BC.

At the municipal level, some local governments are also contributing to the fight. Since 2013, the OBWB has operated the Okanagan WaterWise Program, which includes the widely recognized “Don’t Move a Mussel” campaign.⁵⁹ Additionally, the OBWB has issued several letters to the federal government requesting more long-term funding for these important programs in the BC, as programs like the IMDP are working, but lack funding.⁶⁰ The OBWB asserts that since the federal government has stated that the Fraser River is a priority watershed, it should take the necessary steps in protecting these waters to help protect the rest of the province as well.⁶¹ For example, the IMDP intercepted 155 high-risk watercrafts that were headed to BC in 2023, which demonstrates the program’s effectiveness in helping prevent the spread.⁶² The OBWB suggests that the federal government should at least match BC’s efforts or be prepared for higher management costs in the future.⁶³

INDIGENOUS LEADERSHIP: MODELS THE FEDERAL GOVERNMENT MUST SUPPORT

The *United Nations Declaration on the Rights of Indigenous Peoples* (“UNDRIP”) affirms that Indigenous peoples have the right to maintain and strengthen their distinctive relationship with the lands, territories, and waters that they have traditionally owned and occupied, or otherwise used.⁶⁴ The federal government signed onto the UNDRIP in 2016 and they enacted the *United Nations Declaration on the Rights of Indigenous Peoples Act* (UNDRIPA) in 2021, which commits the federal government to ensuring that its domestic laws are consistent with UNDRIP.⁶⁵ This means that the Government of Canada must, in consultation and cooperation with Indigenous peoples, take all measures necessary to ensure that the laws of Canada are consistent with the Declaration. The Province also enacted the *Declaration on the Rights of Indigenous Peoples Act*

⁵⁷ J. Zeman & D. Lewis, “BCWF demands increased funding to defend waterways from invasive species” (22 February 2024) <<https://bcwf.bc.ca/defend-our-waterways/>>.

⁵⁸ J. Long, “Invasive Mussels – An Immediate and Preventable Threat” (24 February 2025) <[⁵⁹ Okanagan Basin Water Board, “Prevention Help Us Keep Okanagan Waters Zebra and Quagga Mussel Free!” \(n.d.\) <<https://dontmoveamussel.ca/prevention/>>.](https://bcfwatershedteam.ca/2025/02/24/invasive-mussels-an-immediate-and-preventable-threat/#:~:text=In%202024%2C%20BC%20Hydro%20committed,federal%20support%20is%20still%20needed>.”>https://bcfwatershedteam.ca/2025/02/24/invasive-mussels-an-immediate-and-preventable-threat/#:~:text=In%202024%2C%20BC%20Hydro%20committed,federal%20support%20is%20still%20needed>.</p>
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⁶⁰ Okanagan Basin Water Board, “Okanagan Water Board Urges Feds to Support Invasive Mussel Prevention While There’s Time” (18 January 2024) <https://dontmoveamussel.ca/wp-content/uploads/2024/01/2024-01-18_NR_Okanagan-Water-Board-urges-feds-to-fund-mussel-prevention-while-theres-time_FINAL-w-letter.pdf>.

⁶¹ *Ibid.*

⁶² *Ibid.*

⁶³ *Ibid.*

⁶⁴ *United Nations Declaration on the Rights of Indigenous Peoples Act*, SC 2021, c 14, Schedule, s 2(1), Art 25 [UNDRIP Act].

⁶⁵ S.5, *Ibid.*

(“*DRIPA*”), which not only affirms *UNDRIP*’s principles but commits the Province to taking all measures necessary to ensure that the laws of BC are consistent with *UNDRIP*.⁶⁶

These legal commitments are background to the critical work that ONA has done to restore and protect fish and fish habitat in its territories. The ONA has led decades of restoration and protection efforts for salmon populations in the Columbia River system. Programs like the Okanagan Chinook Restoration Program and the Columbia River Salmon Reintroduction Initiative exemplify Indigenous-led restoration rooted in deep cultural and ecological knowledge.⁶⁷ The ONA’s proactive approach to revitalizing salmon stocks is essential not just for food security and ecosystem health, but for upholding their rights and responsibilities as caretakers of their traditional territory.

However, the spread of invasive zebra and quagga mussels now threatens to undo this vital work.⁶⁸ If these species take hold in BC waters, they will cause significant and potentially irreversible damage to aquatic ecosystems, disrupt salmon food chains and trigger toxic algal blooms.⁶⁹ This will place Indigenous food systems, cultural practice, and their connection with the land at risk.

In light of this threat, the ONA called for a temporary moratorium on out-of-province water vessels entering BC in 2024. They established this ban pending a full evaluation of the IMDP and any existing gaps in its implementation.⁷⁰ While the urgency and justification for this ban are clear, the capacity to enforce it effectively requires financial investment. This is where the federal government’s legal obligations come into sharp focus.

Under *UNDRIP* and *DRIPA*, both the federal government and the Province committed to supporting Indigenous peoples in protecting their lands and waters. These are not symbolic gestures but are binding frameworks that require the federal government to act in partnership with Indigenous Nations, including by resourcing the tools needed to safeguard ecosystems under threat. Failing to fund enforcement of the ONA’s proposed vessel ban would not only undermine the federal government’s commitments under *UNDRIP* and *DRIPA* but would amount to a denial of Indigenous peoples’ right to protect the health of their territories.

Therefore, the federal government is legally obligated to provide the funding necessary to enforce measures that prevent the spread of invasive mussels. Upholding *DRIPA* means more than passing legislation; it means investing in Indigenous-led solutions that ensure the survival of ecosystems, cultures, and rights.

⁶⁶ *Declaration on the Rights of Indigenous Peoples Act*, SBC 2019, c 44, s 3 [*DRIPA*].

⁶⁷ Okanagan Nation Alliance, “Okanagan Chinook Restoration Program” (n.d.) <https://syilx.org/projects/okanagan-chinook-restoration-program/>; Okanagan Nation Alliance, “Columbia River Salmon Reintroduction Initiative” (n.d.) <https://syilx.org/governance/partnerships/columbia-river-salmon-reintroduction-initiative/>.

⁶⁸ Okanagan Basin Water Board *supra* note 62.

⁶⁹ Pacific Salmon Foundation *supra* note 56; J. Vogel, K. Fraser & C. Harkness, Working Together to Promote Invasive Species Prevention (Central Kootenay Invasive Species Society, 2018).

⁷⁰ Okanagan Basin Waterboard, “Okanagan Water Board Seeks Boat Ban in Response to Idaho’s Discovery of Invasive Mussels” (18 October 2023) https://dontmoveamussel.ca/wp-content/uploads/2024/01/2023-10-18_Okanagan-Water-Board-seeks-boat-moratorium-responding-to-Idaho-discovery-of-mussels_letters-1.pdf.

CONCLUSION

In sum, the legal framework is clear: the federal government holds significant jurisdiction and responsibility to prevent the spread of AIS. This means that they must significantly increase and equitably distribute funding, especially to BC, to adequately combat the spread of mussels.

Sincerely,



Patricia Weber
ELC Lawyer

cc: client

QUESTIONS

QUESTIONS TO THE MINISTER OF THE DEPARTMENT OF FISHERIES AND OCEANS CANADA

1. Given that the *Canadian Action Plan to Address the Threat of Aquatic Invasive Species* report states that preventing harmful new invasive species from becoming established is the most cost-effective way to address the issue of invasive species, and that federal funding to prevent the spread of AIS in BC has been reduced, what assessments and/or plans has your department developed to measure the amount of funding needed to prevent the spread of AIS vs the amount of money that would be required to address damages once invasive mussels become established in BC? Please provide details and copies of any assessments or plans. If these plans have not been created, please explain why.
2. Given that the Province of Ontario receives double what the Province of BC receives from the *Aquatic Invasive Species Prevention Fund*, what enforcement measures does the federal government intend to use to ensure mussels do not ruin BC waters? If no enforcement measures are intended to be created, please explain why.

QUESTIONS TO THE MINISTER OF THE DEPARTMENT OF FISHERIES AND OCEANS CANADA AND CANADA BORDER SERVICES AGENCY

3. Given that the DFO and Canada Border Services Agency collaborated on a pilot project to inspect and decontaminate boats at the international border crossing at Emerson, Manitoba, have there been any plans to instate similar projects at international border crossings in BC? If not, please explain why.

QUESTIONS TO THE MINISTER OF ENVIRONMENT AND CLIMATE CHANGE CANADA AND THE DEPARTMENT OF FISHERIES AND OCEANS CANADA

4. Given that the federal government has committed to conserving 30% of Canada's land and water by 2030, that BC is home to multiple species at risk, and the threat that invasive mussels pose to these species listed under *SARA*, what assessments and/or plans have your departments developed for creating OECMs in BC to promote biodiversity in the province? Please provide details and copies of any assessments or plans.
5. Considering species such as the speckled dace and various sturgeons mentioned in this petition which are listed as species at risk under *SARA*, and the significant ways in which invasive mussels alter ecosystems and threaten species at risk once they become established, has your department created a plan to use the *HSP for Aquatic Species at Risk* in order to stop or mitigate threats to these aquatic species at risk? If not, please explain why.

QUESTIONS TO THE MINISTER OF CROWN-INDIGENOUS RELATIONS AND NORTHERN AFFAIRS CANADA

6. Considering the ONA has painstakingly worked to increase the population of salmon in their waters over the past decades in the Okanagan region, if these invasive mussels are introduced into the waterways of BC, it will wreak havoc onto the salmon population, negatively impact Indigenous peoples' traditional way of life and erase the effort and funding that has gone into this program. What is Crown-Indigenous Relations and Northern Affairs Canada doing to ensure that Indigenous peoples' efforts are not rendered useless in relation to these invasive mussels?
7. Considering that the ONA has declared a temporary moratorium on all incoming boats from outside of BC without a certificate of inspection, how is Crown-Indigenous Relations and Northern Affairs Canada ensuring that the ONA's moratorium is respected, when more federal funding is required to fund boat inspection sites?
8. Considering that First Nations groups are assisting with the funding of projects and working in collaboration with the Province to support provincial and non-governmental efforts to prevent the spread of zebra and quagga mussels, what is Crown-Indigenous Relations and Northern Affairs Canada doing to further support these communities in their efforts to protect their way of life?

QUESTIONS TO THE MINISTER OF AGRICULTURE AND AGRI-FOOD CANADA

9. Given that invasive mussels are known to affect the water systems that agricultural businesses rely on to support their farms, what is Agriculture and Agri-Food Canada doing to address the issues of the looming threat of invasive mussels in BC?

QUESTIONS TO THE MINISTER OF ENVIRONMENT AND CLIMATE CHANGE CANADA

10. Given that these invasive mussels have proven to harm the native species of the water ways in which they proliferate, how is Environment and Climate Change Canada supporting the Province in its efforts to prevent zebra and quagga mussels from establishing in BC's water systems?