UNDERSTANDING PORT JURISDICTION IN CANADIAN LAW

A REPORT TO WWF CANADA
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ABSTRACT

The legal framework for ports and harbours in Canada establishes a governance system to enable them to service Canada's international and domestic trade while reconciling their activities to the interests and needs of neighbouring coastal and Indigenous communities. This report explains this framework and underscores its complexity and interfacing jurisdictions. Governance structures, processes, functions, and regulatory powers are discussed with a focus on climate change mitigation and the protection and preservation of the marine environment. The report pays special attention to port authorities in the National Ports System because they enjoy significant autonomy and regulatory power. Among other, they are expected to be commercially competitive and nimble while addressing environmental concerns, most especially sustainability through impact assessment, pollution prevention, and minimizing conflicts and impacts of port activities on marine habitats and species. They also provide critical environmental services, such as providing reception facilities for various ship operational wastes and shore power to certain classes of ships when berthed. In doing so, ports help Canada to fulfill its international obligations and commitments to mitigation and the decarbonization of shipping, for example with respect to the International Convention for the Prevention of Pollution from Ships and the Clydebank Declaration emanating from COP 26. Moreover, port authorities are positioned to promote marine conservation in various ways, for example through vessel traffic management powers exercised in coordination with other federal authorities and designating areas within their jurisdiction for conservation purposes. They must operate within the limits of federal law and the Letters Patent prescribing the scope and extent of their powers. While ports' own environmental regulatory powers have limits and are subject to Ministerial oversight, they can pursue sustainability and environmental missions by using various powers, including land use planning, licensing of activities, commercial contracting, and vessel traffic management in coordination with other federal authorities. Finally, the report observes that the ability of ports to better respond to climate change mitigation and adaptation will be strengthened with current new initiatives for legal development.

LIST OF ABBREVIATIONS

Bill C-33 Marine and Rail Transportation Modernization Act

CEPA Canadian Environmental Protection Act

CMA Canada Marine Act

CNMCAA Canadian National Marine Conservation Areas Act

COP Meeting of the States Parties to the *United Nations Framework*

Convention on Climate Change

CSA 2001 Canada Shipping Act, 2001

DFO Fisheries and Oceans Canada (Department of Fisheries and

Oceans)

ECCC Environment and Climate Change Canada

ECHO Enhancing Cetacean Habitat and Observation (ECHO)

FRHA Fishing and Recreational Harbours Act

GHG Greenhouse gas emissions

IMO International Maritime Organization

IAA Impact Assessment Act

IAAC Impact Assessment Agency of Canada

MARPOL International Convention for the Prevention of Pollution from Ships

MBCA Migratory Birds Convention Act, 1994

NAECA North American Emission Control Area

PAOR Port Authorities Operations Regulations

Public Ports Regulations Public Ports and Public Port Facilities Regulations

SARA Species at Risk Act

SOLAS International Convention for the Safety of Life at Sea

SRKW Southern Resident Killer Whale

UNCLOS United Nations Convention on the Law of the Sea

UNDRIP United Nations Declaration on the Rights of Indigenous Peoples

UNDRIPA United Nations Declaration on the Rights of Indigenous Peoples

Act

VFPA Vancouver Fraser Port Authority

VPDCR Vessel Pollution and Dangerous Chemicals Regulations

1. INTRODUCTION

Ports are major industrial and commercial complexes. They constitute transportation hubs around which much international and domestic trade, urbanization, industrial and other economic activities occur. They play major roles in Canada's transportation system, resource development and marine recreational activities. Canada has more than 550 commercial ports, 17 of which are currently at the core of the National Ports System, and more than 1000 small craft harbours.¹ National Ports System ports alone account for significant economic output, contributions to the gross national product, and tax revenue.² Ports are also critical for domestic trade between Canadian ports, including supplying northern communities in the Arctic region. Small craft harbours are vital to coastal communities and their resource and tourism-based economies.

In generating those benefits, ports and their ancillary activities are increasingly guided by sustainability planning, but they nonetheless produce a substantial environmental footprint. Visiting ships produce emissions, generate waste, and may carry invasive species through biofouling and in ballast waters. The ports' infrastructure produces impacts in terms of land use, emissions, and noise from activities servicing ships. At the same time, ports help mitigate the environmental impacts of shipping through green policies and by providing reception facilities for various wastes generated by ships and shore power which helps ships mitigate greenhouse gas emissions (GHGs) and other air pollution while in port. Increasingly, ports will be called upon to provide a range of alternative fuels, such as hydrogen and ammonia, in the shipping industry's efforts to decarbonize.

Canadian ports and harbours are governed by a complex legal regime and activities within them are subject to multiple jurisdictional layers. Federal regulation on navigation and shipping plays a lead role, although major ports also have a degree of regulatory power within their geographical areas. Provincial and municipal regulation may also play roles with respect to certain port activities or under certain conditions and port development activities may have to

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¹ Canada Marine Act, SC 1998, c 10, sch [CMA]. Transport Canada, Backgrounder on Canada's Port System (17 October 2019), https://tc.canada.ca/en/marine/backgrounder-canada-s-port-system. In 2018, the small craft harbours included including 882 fishing harbours and 126 recreational harbours. Fisheries and Oceans Canada, Small Craft Harbours Program (16 June 2022), https://www.dfo-mpo.gc.ca/sch-ppb/aboutsch-aproposppb/index-eng.html.

² The Association of Canadian Port Authorities (ACPA) estimates the contributions of its members at \$17 billion in economic output and \$8 billion in GDP. The overall economic output taking into consideration goods and services transactions, including employees, is at \$53 billion in economic output and \$25 billion in GDP annually. Total tax revenue generated by employers and employees is over \$2 billion. Association of Canadian Port Authorities, "Economy" (undated), https://acpa-aapc.ca/our-impact/economy/.

take into consideration constitutionally protected Indigenous rights. Moreover, aspects of port activities are affected by international conventions and other agreements that Canada is party to.

This report explains the legal framework of ports in Canada with a focus on climate change mitigation and the protection and preservation of the marine environment. Using primary (legal instruments and decisions), secondary (scholarly literature) and tertiary (grey) sources, the report explains the jurisdictional, legal, and regulatory powers pertaining to ports, including abilities and limitations of regulatory authority, interactions between port law and other laws, and the legal relationship of ports with different levels of government. The report accomplishes this task by first setting out the Canadian context, followed by an explanation of jurisdiction and oversight of ports and harbours. The bulk of the discussion occurs on the legal framework of ports and harbours and the environmental regulation of ports and harbours. The report includes a general discussion followed by concluding remarks.

2. THE CANADIAN CONTEXT

With coastal frontage in the Atlantic, Arctic and Pacific Oceans, and a long littoral along the St. Lawrence Seaway and Great Lakes, Canada has an extensive system of ports and harbours, each subject to their particular geographical location, legal status and functions performed. The ownership, management and operation of ports and harbours, while having similarities to other countries, also have some unique Canadian characteristics. Canada is a confederation and its constitution divides powers between federal, provincial, and territorial levels, while municipalities are created by the provinces. All of these political and law-making levels have some role to play with respect to ports and harbours or their activities. As will be discussed below, ports and harbours fall primarily under the federal power over navigation and shipping, but in practice port activities may overlap in some respects with provincial (and municipal) powers concerning the regulation of local undertakings and property and civil rights. In recent years, Canadian courts have emphasized the importance of cooperative federalism, whereby federal and provincial levels cooperate to achieve common legislative goals, for example on matters where their respective mandates overlap.³

³ "The fundamental objectives of federalism were, and still are, to reconcile unity with diversity, promote democratic participation by reserving meaningful powers to the local or regional level and to foster co-operation among governments and legislatures for the common good." *Canadian Western Bank v Alberta*, 2007 SCC 22, at para 22.

Not all ports are of the same class. Canadian law distinguishes between ports managed by port authorities, public ports, and fishing and recreational harbours, some of which may be private. Their powers differ significantly. The largest and most important commercial ports are managed by port authorities established by federal law and enjoying a measure of regulatory power in connection with port activities. Public ports are ports of regional significance and enjoy substantially less authority than the major commercial ports. Fishing and recreational harbours tend to be much smaller and are administered by federal authorities or other bodies specifically delegated with management functions. It is common for the federal government to enter into local agreements to devolve the management of a harbour to a local authority or organization. Port and harbour authorities are usually incorporated bodies.

Ports conduct a wide range of activities related to the movement of maritime trade and consequently have complex infrastructure consisting of terminals, docks, wharfs, buildings, and other structures to support commercial activities. Typically, ports are home to clusters of maritime industries and services including bunkering, chandlers, warehousing, ship repair, pilotage, towage, and salvage. Major ports provide vessel traffic services in their geographical remit, which can be fairly extensive in terms coastal and inshore waters. The inshore waters within their jurisdiction may include not only the area enclosed by the mouth of the port, but also riverine areas and offshore anchorages and the approaches to the port covered by traffic services zones.

A port's Letters Patent, which consist of incorporation documents and that may be amended by Supplementary Letters Patent, are issued at the discretion of the Minister of Transport. They set out a port authority's governance system, powers and activities to be undertaken in the lands and waters assigned to it, which include "the navigable waters that are within the port authority's jurisdiction". The CMA defines 'port' as "the navigable waters under the jurisdiction of a port authority and the real property and immovables that the port authority manages, holds or occupies as set out in the letters patent." On the terrestrial side, a port may control extensive Crown-owned lands and other lands privately owned by the port authority. Typically, major commercial ports are integrally connected to rail, road, and air transportation networks.

A particular consideration in the discussion of ports and harbours in the Canadian context is the role of Indigenous rights where the location of the port or harbour is in ancestral lands or territories or when the activities of the port affect Indigenous rights. The port or harbour may be

⁴ CMA (n 1) s 8. Transport Canada, Backgrounder on Canada's Port System (17 October 2019), https://tc.canada.ca/en/marine/backgrounder-canada-s-port-system.

⁵ CMA (n 1) s 5.

totally located on Indigenous lands subject to land claims agreements known as modern treaties. The common law prescribes a duty to consult with respect to development that affects the exercise of Indigenous rights.⁶

3. JURISDICTION AND OVERSIGHT OF PORTS AND HARBOURS

3.1 Jurisdiction

Canada's constitution allocates specific powers to the federal and provincial levels. While there is no head of power dedicated to ports, jurisdiction over ports and harbours resides primarily within the federal level under various constitutional powers. These include jurisdiction over federal public property, trade and commerce, navigation aids, navigation and shipping, and quarantine. Crown lands, as federal public property, are subject to exclusive federal jurisdiction, but other lands held by port authorities are not. Navigation and shipping includes the corollary infrastructure and control over shipping lanes and waterways. Claims concerning shipping, including services provided to ships by ports, such as dock charges, harbour dues and charges for related facilities are subject to federal maritime law. The federal power over navigation and shipping tends to be broadly construed so that national transportation cannot be allowed to be hobbled by local interests.

While the power to regulate ports is federal, there can still be situations where provincial law applies to particular port activities which may also fall under provincial constitutional powers over local works and undertakings and property and civil rights.¹⁷ Generally, the provincial power to regulate local works and undertakings must not concern domestic shipping, or extend beyond provincial limits, or apply to international shipping, or regulate particular works declared by Parliament to be of national importance or for the benefit of more than one province.¹⁸

⁶ A Mayer, "Administration of Ports and Harbours", in A Chircop, W Moreira, H Kindred and E Gold, *Canadian Maritime Law* 2d (Toronto: Irwin Law, 2016), 136-137.

⁷ British Columbia (Attorney General) v Lafarge Canada Inc., 2007 SCC 23 [BC v Lafarge], para 36.

⁸ Constitution Act, 1867, s 91(1A).

⁹ Ibid s 91(2).

¹⁰ Ibid s 91(9).

¹¹ Ibid s 91(10).

¹² Ibid s (91(11).

¹³ BC v Lafarge (n 7) para 55.

¹⁴ Ibid para 62.

¹⁵ Federal Courts Act, RSC 1985, c F-7, s 22(2)(s).

¹⁶ BC v Lafarge (n 7) at para 64.

¹⁷ Constitution Act, 1867, s 92(10).

¹⁸ Ibid.

Moreover, Parliament can restrict the exercise of proprietary rights, such as waterfront ownership, in the interests of navigation and shipping.¹⁹

The fact that certain activities in port may be subject to provincial jurisdiction should not be surprising. Ports are often located in urban environments and the provinces (and municipalities created by them) are responsible for land-use planning, which includes zoning and building regulations. Hence land-use planning in a port or harbour environment has both federal and provincial aspects.²⁰ Certain activities in ports may have 'double aspects', that is they are subject to both federal and provincial regulation because both levels have compelling interests. For example, the waterfront lands may be publicly or privately owned and depending on the purpose of their development, they may be subject to federal or provincial regulation.²¹ If the development is for purely residential purposes, provincial law will apply, and if the development is for shipping purposes, federal law will apply. If the purpose is shipping-related and there is no applicable federal law, provincial law may still apply, but if there is applicable federal law and there is operational conflict between federal and provincial law in terms of purpose and operation, federal law will apply because of the federal paramountcy doctrine.²² This means that port authority land use planning in support of navigation and shipping in areas that are not public property will prevail over general provincial land use planning and regulation.

Much of the discussion on federal authority over ports and complementary provincial jurisdiction applies to small craft harbours. Harbours are also within the ambit of provincial and municipal legislatures.²³ The federal government may delegate some of its management responsibilities to the public or private body taking on responsibility for the harbour and/or related facility. These could include, for example, the power for spatial planning and safety management.²⁴ Powers related to navigation shipping may also be shared between federal and provincial levels based on agreement, for example with respect to boating safety regulations and enforcement.²⁵

¹⁹ Montreal (City of) v Montreal Harbour Commissioners, [1926] 1 DLR 840 (PC), 848-49.

²⁰ Hamilton Harbour Commissioners v City of Hamilton (1976), 21 OR (2d) 459 (HCJ), 484.

²¹ BC v Lafarge (n 7), paras 37, 62.

²² Ibid paras 76-77.

²³ Re Sturmer and Town of Beaverton (1911), 24 OLR 65 (Div Ct).

²⁴ Durham (Regional Municipality) v Todd, 2010 ONCJ 122. H Epstein, Land-Use Planning law (Toronto: Irwin Law, 2017), 180-81, 188-89.

²⁵ See, for example, the roles played by provinces and local authorities concerning the safety of boating operations on lakes, rivers and designated waters in *Vessel Operation Restriction Regulations*, SOR/2008-120.

3.2 Ministerial oversight

Port Authorities incorporated under the *Canada Marine Act* (CMA) are responsible for the governance of port areas.²⁶ They operate autonomously and are directed by their own boards of directors, whose appointment is governed by the Act. Together with public ports, Port Authorities are overseen by the Minister of Transport. Differently, under the RFHA, the governance of fishing and recreational harbours may be delegated or divested to other persons, bodies or harbour authorities overseen by the Minister of Fisheries and Oceans and the Canadian Coast Guard.²⁷

In addition to the Transport Canada and Fisheries and Oceans Canada (DFO), several other federal departments and agencies have mandates that cover some aspects of port activities and their impacts. For example, the Public Health Authority of Canada is responsible for public health matters such as quarantine. The Canada and Border Security Agency is responsible for immigration matters. Environment and Climate Change Canada (ECCC) is responsible for marine environment protection matters and including air quality in ports.

Canadian Port Authorities work together to advance their common interests. In this respect, the Association of Canadian Port Authorities represents 17 authorities. At the regional and international level, the Association of Pacific Ports represents the interests of Canadian and US ports on the West Coast.²⁸ At the global level, ports advance their interests through the International Association of Ports and Harbours, based in Tokyo, Japan.²⁹

4. THE LEGAL FRAMEWORK FOR PORTS AND HARBOURS

The legal framework relating to ports and harbours consists of federal law, and provincial law, aspects of Aboriginal and Indigenous law, and international law. The fact that ports and harbours fall under federal constitutional powers means that federal law is paramount in their regard. The core statutes concerning the governance of ports and harbours are the CMA and the FRHA, and other general statutes apply to specific aspects of port activities. Some provincial (and by implication municipal) law applies to specific matters or activities in the port environment when those activities concern matters that are constitutionally allocated to the provinces. Aboriginal and Indigenous law applies to matters concerning constitutionally protected Indigenous rights

²⁷ Fishing and Recreational Harbours Act, RSC 1985, c F-24 [FRHA].

²⁶ CMA (n 1).

²⁸ Association of Pacific Ports, https://www.pacificports.org/.

²⁹ International Association of Ports and Harbours, https://www.iaphworldports.org/>.

affected by port activities. International law, primarily consisting of international maritime and environmental law instruments to which Canada is party, is relevant because of specific rights and duties that Canada has according to those instruments and which may require action at the port level for their discharge. International law generally does not directly apply to domestic port activities, unless referentially incorporated in federal legislation and made applicable to port activities. These sources of law will be briefly discussed in turn.

4.1 Federal law

Table 1 sets out the scope of federal primary legislation that applies to ports and harbours. The constitutional allocation of powers has already been discussed, so attention in this section will focus on the other aspects of the legal framework.

The CMA sets out the policy for ports and is supported by the broader national transportation policy stated in the *Canada Transportation Act*.³⁰ The CMA was adopted in the wake of the National Marine Policy in 1995 setting out a modern framework to enhance the competitiveness of Canadian ports through various measures, including removal of unnecessary regulatory constraints in the exercise of their powers.³¹ Among other, and out of recognition of the importance of international uniformity and especially with respect to Canada's trading partners, the Act looks to international practices and approaches for the national port infrastructure and services, provision of services at reasonable cost, and operations undertaken with a high level of safety and environmental protection. Partly in response to recent events posing severe challenges to global supply chains, Bill C-33, the *Marine and Rail Transportation Modernization Act* (Bill C-33), recently introduced legislative proposals that include an extension of the purposes of the CMA to "manage the marine infrastructure and services, including through the participation of port authorities, in a manner that maintains the security and enhances the resiliency of supply chains, safeguards national security and promotes healthy competition dynamics".³²

Ports typically include diverse service providers, for example terminal operators, chandlers, bunker fuel suppliers, and so on, and port activities include terrestrial activities such as property management, leasing of buildings, and so on. Hence the Act, as overseen by the

³⁰ Canada Transportation Act, SC 1996, c 10, s 5.

³¹ National Marine Policy (Transport Canada, May 1995); CMA (n 1) preamble.

³² Bill C-33, An Act to amend the Customs Act, the Railway Safety Act, the Transportation of Dangerous Goods Act, 1992, the Marine Transportation Security Act, the Canada Transportation Act and the Canada Marine Act and to make a consequential amendment to another Act (to be titled Strengthening the Port System and Railway Safety in Canada Act), First Reading, 17 November 2022, House of Commons, First Session, Forty-fourth Parliament, 70-71 Elizabeth II – 1 Charles III, 2021-2022 [Bill C-33), s 100 (f.1).

Table 1: The federal legal framework applicable to ports and harbours

Topics	Functions	Instruments
Constitutional powers	Allocation of jurisdiction and powers	Constitution Act, 1867
Maritime and port policy	Policy	Canada Marine Act
manume and porc poncy		Canada Transportation Act
		Coasting Trade Act
Governance of ports and	Ports	Canada Marine Act
harbours	Harbours	Canada Not for Profit Corporations Act
	110100013	Fishing and Recreational Harbours Act
Maritime activities	Safety	Arctic Waters Pollution Prevention Act
Warrenne activities	Janety	Canada Marine Act
		Canada Shipping Act, 2001
		Canadian Transportation Accident Investigation and
		Safety Board Act
		Pilotage Act
		Transportation of Dangerous Goods Act
	Security	Canada Marine Act
	Security	Criminal Code
		Marine Transportation Security Act
Environment protection	Decarbonization	Bill-C 33: Marine and Rail Transportation
Environment protection	Decarbonization	Modernization Act
		Canadian Net-Zero Emissions Accountability Act
	Sustainability	Impact Assessment Act
	Navigable waters protection	Canadian Navigable Waters Act Wrecked, Abandoned or Hazardous Vessels Act
	Pollution prevention	Arctic Waters Pollution Prevention Act
		Canadian Environment Protection Act
		Canada Shipping Act, 2001
		Fisheries Act
		Migratory Birds Convention Act
		Oil Tanker Moratorium Act
	Consider and balaises	Wrecked, Abandoned or Hazardous Vessels Act
	Species and habitats	Canadian National Marine Conservation Areas Act
	protection	Canada National Parks Act
		Canada Wildlife Act
		Fisheries Act
		Migratory Birds Convention Act
		Oceans Act
D. I. I. I. I.		Species at Risk Act
Public health	Quarantine	Quarantine Act
Fiscal and property	Customs	Canada Customs Act
matters	Inter-governmental fiscal	Federal-Provincial Fiscal Arrangements Act
	matters	1
	Taxation	Payments in Lieu of Taxes Act
	Immovable property	Federal Real Property and Federal Immovables Act
Immigration	Immigration and refugee maters	Immigration and Refugee Protection Act
Public information and	Access to information	Access to Information Act
privacy	Privacy protection	Privacy Act

Minister of Transport provides a framework for a high degree of port management autonomy to enable the infrastructure to be operated and services to be provided in a competitive commercial manner. Because ports serve as nodal points in national and international transportation systems, the port policy promotes coordination and integration of marine with road, rail, and air modes of transport. Also relevant to policy, the *Coasting Trade Act* reserves shipping between Canadian domestic ports to Canadian registered ships.³³ Ships servicing domestic trade (cabotage) enjoy certain benefits, for example exemption from fees for some navigational services such as icebreaking in northern waters.

The CMA and its regulations set out the core legal regime for the governance of ports.³⁴ The Act also concerns the St. Lawrence Seaway and Champlain Bridges, but these are not discussed in this report. The Act created initially 18 port authorities (now 17) and designated other ports as public ports. While 34 remote ports remained under Transport Canada supervision, some 150 smaller ports have been devolved to provinces or municipalities. Port authorities are established as crown corporations following the issuing of Letters Patent by the Minister of Transport and operate as agents of the federal government. They are required to be financially self-sufficient. Differently, public ports of regional significance are established by the Governor in Council and may be federally or privately run. While not all ports are federal, Transport Canada plays an overseeing role to ensure compliance with environmental and navigable waters regulations. The principal general regulations concern navigation and use,³⁵ management³⁶ and operations of port authorities.³⁷ Public ports are regulated separately³⁸ and the ports of Prince Rupert and Toronto have dedicated regulations.³⁹

Small harbours are regulated by the FRHA and regulations.⁴⁰ These consist of diverse harbours and facilities based in coastal communities and playing important roles in local economies. They are operated by lease or licence granted by the Minister of Fisheries and Oceans to scheduled harbours, usually for a 20-year period, and managed by a wide range of public bodies and private persons, separately from the federal government. They may include municipalities, cities, towns, villages, regional administrations, local administrations, Indigenous band councils, and other First Nations.⁴¹ Some bodies are incorporated as not-for-profit

³³ Coasting Trade Act. SC 1992, c 31.

³⁴ CMA (n 1).

³⁵ Natural and Man-made Harbour Navigation and Use Regulations, SOR/2005-73 [Harbour Use Regulations].

³⁶ Port Authorities Management Regulations, SOR/99-101.

³⁷ Port Authorities Operations Regulations, SOR/2000-55 [PAOR].

³⁸ Public Ports and Public Port Facilities Regulations, SOR/2001-154.

³⁹ Port of Prince Rupert Liquefied Natural Gas Facilities Regulations, SOR/2016-260; Toronto Port Authority Regulations, SOR/2005-120.

⁴⁰ FRHA (n 27); Fishing and Recreational Harbours Regulations, SOR/78-767 [FRHR].

⁴¹ FRHA (n 27) at s 2 re definition of agency.

organizations under federal law,⁴² but may also be incorporated under provincial law. The Act and regulations set out the framework for the exercise of Ministerial powers, provisions to be included in agreements with agencies managing harbours and facilities, charges that may be levied, regulatory and enforcement powers, including property removal, seizure, detention, forced judicial sale, offences, and penalties.

Legislation concerning the safety and security of maritime activities obviously applies to shipping in port. The *Canada Shipping Act, 2001* (CSA 2001)⁴³ and many of its regulations apply to safety measures and procedures, such as for marine communications and vessel traffic management.⁴⁴ Similarly, regulations under the CMA provide for safety of harbour facilities and waters.⁴⁵ The *Pilotage Act*⁴⁶ is another instrument designed to promote safe navigation by regulating the certification and use of pilots, most especially in ports where pilotage tends to be mandatory. Some cargoes have special requirements concerning loading, unloading, storage and labelling because of their inherent nature, as is the case for the classes of dangerous goods regulated by the *Transportation of Dangerous Goods Act, 1992*.⁴⁷ In the event of serious incidents and accidents involving modes of transportation in ports, the *Canadian Transportation Accident Investigation and Safety Board Act* provides for independent investigations to determine causes and how safety can be enhanced.⁴⁸ The security of ships and port facilities servicing them is addressed by the International Maritime Organization (IMO)'s International Ship and Port Facility Code as implemented by the *Marine Transportation Security Act*⁴⁹ and by regulations under the CMA.⁵⁰ Moreover, interference with transportation facilities is a criminal offence.⁵¹

Several statutes concerning general environmental matters are relevant to different aspects of port operations. With respect to decarbonization, port activities are captured by the 2050 net-zero target for national GHG emissions adopted under the *Canadian Net-Zero Emissions Accountability Act*⁵² and eventual reporting of Canada's Nationally Determined Contribution under the Paris Agreement.⁵³ Bill-C 33 will strengthen ports' ability to pursue decarbonization.⁵⁴

⁴² Canada Not-for-profit Corporations Act, SC 2009, c 23.

⁴³ Canada Shipping Act, 2001, SC 2001, c 26 [CSA 2001].

⁴⁴ Ibid s 126.

⁴⁵ Harbour Use Regulations (n 35).

⁴⁶ *Pilotage Act*, RSC 1985, c P-14.

⁴⁷ Transportation of Dangerous Goods Act, 1992 SC 1992, c 34.

⁴⁸ Canadian Transportation Accident Investigation and Safety Board Act, SC 1989, c 3.

⁴⁹ Marine Transportation Security Act, SC 1994, c 40.

⁵⁰ Harbour Use Regulations, s 3.

⁵¹ Criminal Code, RSC 1985, c C-46, s 248.

⁵² Canadian Net-Zero Emissions Accountability Act, SC 2021, c 22, s 6.

⁵³ Paris Agreement (adopted 12 December 2015, in force 4 November 2016), UN Doc FCCC/CP/2015/L.9/Rev.1 (12 December 2015).

⁵⁴ Bill C-33 (n 32) s 107(2).

Similarly, for the purpose of the *Impact Assessment Act* (IAA), ports are designated federal authorities which, as part of the government of Canada, are expected to foster sustainability, respect for Indigenous peoples and to apply the precautionary approach.⁵⁵ Hence, Port Authorities conduct impact assessment reviews of activities within their remit in accordance with the IAA.⁵⁶ Project proponents must not undertake activities that produce adverse effects on fish and fish habitats, aquatic species, migratory birds and other scheduled components of the environment.⁵⁷ Indeed, several environmental statutes discussed below provide extensive protection to marine species and habitats.

The legal protection of navigable waters in ports is provided by two statutes. The *Canadian Navigable Waters Act* and its regulations address activities that could produce obstructions to navigation in navigable waters. However, several major ports are exempted from the application of this act, although an impact assessment must be undertaken. The Act does not apply to Ministerial determinations as to whether works interfere with navigation in other ports, although presumably the requirements of the IAA would still apply. Perhaps more pertinent is the *Wrecked, Abandoned and Hazardous Vessels Act* governing the regimes for problem vessels abandoned in ports, salvage of vessels in distress and the removal of wrecks. The Ministers of Transport and Fisheries and Oceans enjoy powers to address problem vessels in ports, harbours, and navigable waters generally, and to delegate powers for this purpose to port and harbour authorities.

The protection of marine and other species under the *Canada Wildlife Act*,⁶³ *Migratory Birds Convention Act* (MBCA)⁶⁴ and *Species at Risk Act* (SARA)⁶⁵ extends to the geographical areas of ports and harbours. Moreover, marine protected areas that potentially affect parts of a port or harbour's geographical area may be designated under the *Canadian National Marine Conservation Areas Act* (CNMCAA),⁶⁶ *Canada Wildlife Act*⁶⁷ and *Oceans Act*.⁶⁸ In some instances,

⁵⁵ Impact Assessment Act, SC 2019, c 28 [IAA], s 2, s 6(2), and sch 1.

⁵⁶ Canada Port Authority Environmental Assessment Regulations, SOR/99-318.

⁵⁷ IAA (n 55) s 7(1).

⁵⁸ Canadian Navigable Waters Act, RSC 1985, c N-22.

⁵⁹ Belledune Port Authority, Halifax Port Authority, Montreal Port Authority, Prince Rupert Port Authority, Quebec Port Authority, Saguenay Port Authority, Saint John Port Authority, Sept-Îles Port Authority, St. John's Port Authority, Trois-Rivières Port Authority, and Vancouver Fraser Port Authority. PAOR (n 37) s 21 and sch 2.

⁶⁰ Ibid s 22.

⁶¹ Ibid s 3.

⁶² Wrecked, Abandoned or Hazardous Vessels Act, SC 2019, c 1.

⁶³ Canada Wildlife Act, RSC 1985, c W-9.

⁶⁴ Migratory Birds Convention Act, 1994, SC 1994, c 22 [MBCA].

⁶⁵ Species at Risk Act, SC 2002, c 29 (SARA).

⁶⁶ Canada National Marine Conservation Areas Act, SC 2002, c 18 [CNMCAA].

⁶⁷ Canada Wildlife Act (n 63).

⁶⁸ Oceans Act, SC 1996, c 31.

parts of a port or harbour may also be designated as national parks under the *Canada National Parks Act*. ⁶⁹

Pollution prevention provisions with respect to dumping in the CEPA,⁷⁰ management of various wastes on board ships and discharge of pollutants under the CSA 2001,⁷¹ and discharge of substances deleterious to fish and habitats under the *Fisheries Act*⁷² and their respective regulations similarly apply to activities in ports and harbours. While there are no major ports in Arctic waters north of 60 degrees, there are numerous small harbours and together with shipping are governed by the *Arctic Waters Pollution Prevention Act* and its regulations prescribing a zero-to-controlled discharge regime for wastes.⁷³ The *Oil Tanker Moratorium Act* is also relevant for minimizing the risk of oil pollution accidents in British Columbia because it creates prohibitions for oil tankers carrying more than 12,500 metric tons of crude and/or persistent oil with respect to ports and marine installations north of 50°53′00″ north latitude and west of 126°38′36″ west longitude, unless they enjoy a limited exception or Ministerial exemption. ⁷⁴ The prohibitions include mooring, anchoring, loading, and unloading, as well assisting such vessels to circumvent the prohibitions. Further, the *Wrecked, Abandoned and Hazardous Vessels Act* is pertinent to this discussion as the removal of problem vessels in ports and waters may also help to abate pollution of the port and marine environment.⁷⁵

Finally, there is a range of various regulatory matters applying to ports and harbours administered by other departments or agencies. Public health matters in the port and harbour environment are subject to the *Quarantine Act*,⁷⁶ overseen by the Public Health Agency of Canada. The Act implements the International Health Regulations which, among other, establish procedures for reports with respect to ships that may have persons with infectious diseases on board. Customs matters overseen by the Canada Border Services Agency, fiscal arrangements subject to a federal provincial arrangement, taxation, and federal immovable property are subject to other federal legislation.⁷⁷ Immigration matters are overseen by the Department of Immigration and Citizenship under the *Immigration and Refugee Protection Act*.⁷⁸ Finally, access

⁶⁹ Canada National Parks Act, SC 2000, c 32.

⁷⁰ Canadian Environmental Protection Act, 1999, SC 1999, c 33 [CEPA], s 125.

⁷¹ CSA 2001 (n 43) s 187.

⁷² Fisheries Act, RSC 1985, c F-14, s 36(3).

⁷³ Arctic Waters Pollution Prevention Act, RSC 1985, c A-12; Arctic Shipping Safety and Pollution Prevention Regulations, SOR/2017-286.

⁷⁴ Oil Tanker Moratorium Act, SC 2019, c 26, ss 4-6.

⁷⁵ Wrecked, Abandoned or Hazardous Vessels Act (n 62).

⁷⁶ *Quarantine Act*, SC 2005, c 20.

⁷⁷ Canada Customs Act, RSC 1985, c.1 (2nd Supp); Federal-Provincial Fiscal Arrangements Act, RSC 1985, c F-8; Payments in Lieu of Taxes Act, RSC 1985, c M-13; Federal Real Property and Federal Immovables Act, SC 1991, c 50. ⁷⁸ Immigration and Refugee Protection Act, SC 2001, c 27.

to information concerning port authority activities, for example during impact assessment of proposed works, and management of data, such as that collected from clients, are respectively governed by the *Access to Information Act*⁷⁹ and the *Privacy Act*.⁸⁰

4.3 Provincial law

There are aspects of port activities that fall under or overlap with provincial jurisdiction over property and civil rights and local undertakings. For example, provincial law applies to port or harbour authority transactions concerning private commercial properties, such as leases of buildings and insurance, and creation of securities on fixtures on federal real property if permitted by Letters Patent.⁸¹ Provincial law also applies to the disposal of real property and immovables in public ports.⁸² Occupational heath and safety matters, including workers' compensation in cases of death or injury in the port environment are similarly covered by provincial law. There may also be matters which may be subject to complementary federal and provincial regulation.⁸³

4.4 Aboriginal and Indigenous law

Under the *Constitution Act, 1982*, Aboriginal and treaty rights are recognized and affirmed.⁸⁴ The treaties concerned include both historic treaties and land claims agreements known as modern treaties. Recently, Parliament legislated the *United Nations Declaration on the Rights of Indigenous Peoples Act* (UNDRIPA)⁸⁵ as a framework for Canada's implementation of the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP).⁸⁶ These rights are numerous and include rights to ancestral lands, territories and resources, cultural rights, and a right to a protected environment. This is significant for ports and harbours because the UNDRIPA commits the federal government to undertake a legislative review as part of the process of implementing UNDRIP. It is worth noting that the CMA provides that nothing in this Act is to be construed as abrogating or derogating from constitutionally protected Indigenous rights.⁸⁷ Ports and harbours around the country may be located in ancestral lands and territories, and hence the development

⁷⁹ Access to Information Act, RSC 1985, c A-1.

⁸⁰ Privacy Act, RSC 1985, c P-21.

⁸¹ CMA (n 1) s 30(6).

⁸² Ibid s 72(6), (3).

⁸³ See *BC v Lafarge* (n 7). Courts have also upheld provincial jurisdiction over contracts concerning the supplies of necessaries to ships, even though such contracts are governed by the *Federal Courts Act* (n 15) s 22(2). *Desgagnés Transport Inc. v. Wärtsilä Canada Inc*, 2019 SCC 58.

⁸⁴ Constitution Act, 1982, s 35.

⁸⁵ United Nations Declaration on the Rights of Indigenous Peoples Act, SC 2021, c 14.

⁸⁶ United Nations Declaration on the Rights of Indigenous Peoples, GA Res A/res/61/295 (13 September 2007).

⁸⁷ CMA (n 1) s 3.

of port infrastructure and activities could trigger a duty to consult Indigenous peoples whose rights are affected.⁸⁸ The duty "arises when the Crown has knowledge, real or constructive, of the potential existence of Aboriginal right or title and contemplates conduct that might adversely affect it."⁸⁹ The Crown's duty to consult applies to both federal and provincial governments.⁹⁰ Moreover, the IAA obliges federal authorities, including port authorities, to exercise their powers in a manner that respects federal commitments with respect to the rights of Indigenous peoples.⁹¹

4.5 International law

Canada is party to several international conventions relevant for ports which it has domesticated through federal legislation and that ports are expected to observe. ⁹² Canada is party to the *United Nations Convention on the Law of the Sea*, 1982 (UNCLOS), which considers port waters as internal waters and subject to its full sovereignty, thus enabling it to regulate and set conditions for port entry. ⁹³ Canada implemented UNCLOS through the *Oceans Act*. ⁹⁴ Canada is party to the *Convention on the Facilitation of International Maritime Traffic*, 1965 which provides a framework for the harmonization of rules and procedures, such as documentary formalities, to facilitate maritime trade. ⁹⁵ Interestingly, Canada has never been a party to *Convention and Statute on the International Regime of Maritime Ports*, 1923 which provides for mutual access to ports and without discrimination as to flag. ⁹⁶ At customary international law, there is a

⁸⁸ Saanichton Marina Ltd v Claxton, 1989 BCCA, 36 BCLR (2d) 79. Other key cases on the general duty to consult include: Haida Nation v British Columbia (Minister of Forests), 2004 SCC 73; Taku River Tlingit First Nation v British Columbia (Project Assessment Director), 2004 SCC 74; Mikisew Cree First Nation v Canada (Minister of Canadian Heritage), 2005 SCC 69; Beckman v Little Salmon/Carmacks First Nation, 2010 SCC 53; Rio Tinto Alcan Inc v Carrier Sekani Tribal Council, 2010 SCC 43.

⁸⁹ Haida Nation (n 88) at para 35.

⁹⁰ Constitution Act, 1867, s 9. For a general overview of the duty to consult, see I Brideau, "The Duty to Consult Indigenous Peoples", Library of Parliament Research Publications, Publication No. 2019-17-E (12 June 2019), https://lop.parl.ca/sites/PublicWebsite/default/en_CA/ResearchPublications/201917E#txt20.

⁹¹ IAA (n 55) s 6(2).

⁹² For example, the Letters Patent of the Vancouver Fraser Port Authority provide: "The Authority shall comply with all obligations applicable to the Authority arising under any international agreement, convention or arrangement, or any federal-provincial agreement, including port state control agreements." Vancouver Fraser Port Authority, Certificate of Amalgamation of Port Authorities, Order in Council PC 2007-1885 (6 December 2007) [VFPA Letters Patent], art 11.1.

⁹³ United Nations Convention on the Law of the Sea (adopted 10 December 1982, in force 16 November 1994), 1833 UNTS 396 [UNCLOS]; ratified by Canada 7 November 2003.

⁹⁴ Oceans Act (n 68) part I.

⁹⁵ Convention on Facilitation of International Maritime Traffic (adopted 9 April 1965, in force 5 March 1967), 591 UNTS 265; accepted by Canada 19 December 1974.

⁹⁶ Convention and Statute on the International Regime of Maritime Ports (adopted 9 December 1923, in force 2 December 1926), 58 LNTS 285. Britain's ratification in 1924 was accompanied by a declaration that the ratification did not apply to the Dominion of Canada, although in 1925 the ratification extended to Newfoundland.

presumption that port entry by a ship is a privilege and not a right and the coastal State is free to set conditions for port entry.⁹⁷

UNCLOS has several provisions concerning the role of the IMO in the development and adoption of generally accepted international rules and standards, as well as procedures for international shipping. 98 The IMO does this through international conventions, codes, and guidelines, some of which have roles or implications for ports, for example for port safety and pollution prevention inspections of ships and reception facilities for wastes generated by ships. Canada is party to the key safety conventions entailing port safety inspections, such as the International Convention for the Safety of Life at Sea, 1974 (SOLAS)⁹⁹ and International Convention on Load Lines, 1966, 100 both of which have been implemented by the CSA 2001 and regulations under it. SOLAS, in particular, has several subsidiary codes that directly affect the safety and security of port operations that have been implemented through CSA 2001 regulations. 101 Canada is also party to other important safety conventions, such as the Convention on the International Regulations for Preventing Collisions at Sea, 1974, which provides the rules of the road for ships, including a rule concerning vessel separation schemes, an important aspect of vessel traffic management and safe mobility in port waters. 102 This instrument is also implemented through regulations under the CSA 2001. 103 The most important convention concerning pollution from ships is the International Convention for the Prevention of Pollution from Ships, 1973/78 (MARPOL), 104 which is similarly implemented through regulations under the CSA 2001.¹⁰⁵ The most significant MARPOL elements are port inspections for pollution

⁹⁷ A V Lowe, "The Right of Entry into Maritime Ports in International Law", (1977) *San Diego Law Review* 14(3):597-622 at 619.

⁹⁸ A Chircop, "The IMO, its Role under UNCLOS and its Polar Shipping Regulation", in R. Beckman et al., eds., *Governance of Arctic Shipping - Balancing Rights and Interests of Arctic States and User States* (Leiden: Brill, 2017), 107-143 at 118, 122 and 140 et seq.

⁹⁹ International Convention for the Safety of Life at Sea (adopted 1 November 1974, in force 25 May 1980), 1184 UNTS 2; acceded to by Canada 8 May 1978.

¹⁰⁰ International Convention on Load Lines (adopted 5 April 1966, in force 21 July 1968), 640 UNTS 133; accepted by Canada 17 January 1970.

¹⁰¹ For example: *International Ship and Port Facility Security Code* (ISPS), Resolution SOLAS/Conf.5 Res.2 (12 December 2002); *International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk* (IBC), Resolution Res.MSC.4(48) (17 June 1983); *International Maritime Dangerous Goods (IMDG) Code*, Resolution MSC.122(75) (24 May 2002).

¹⁰² Convention on the International Regulations for Preventing Collisions at Sea (adopted 20 October 1972, in force 15 July 1977), 1050 UNTS 16; acceded to by Canada 7 March 1975.

¹⁰³ Collision Regulations, CRC c 1416.

¹⁰⁴ International Convention for the Prevention of Pollution from Ships (adopted 2 November 1973), 1340 UNTS 184, as amended by Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships of 1973 (adopted 17 February 1978, in force 2 October 1983), 1340 UNTS 61 [MARPOL]; acceded to by Canada 16 November 1992 together with Annexes I and II; accession to Annex III 8 August 2002; accession to Annexes IV & V 26 March 2010).

¹⁰⁵ Vessel Pollution and Dangerous Chemicals Regulations, SOR/2012-69 [VPDCR].

prevention, compliance, and enforcement of violations through regulations implementing Annexes I (oily wastes), II (noxious liquid substances in bulk), IV (sewage) and V (garbage). The Annexes include undertakings by State Parties to provide port reception facilities for visiting ships to enable them to discharge the regulated wastes. Annex VI is also relevant for ports because it contains rules on bunker fuels, the reception of scrubber residue produced according to the alternative compliance rule on sulphur content of fuel, ¹⁰⁶ and the designation of the North American Emission Control Area (NAECA). ¹⁰⁷ NAECA regulates the fuels that can be used by ships in North American waters (but excluding Arctic waters) for air quality and public health reasons. The effect of the rules is to significantly reduce air pollution in ports. The port environment also benefits from other conventions regulating other risks produced by ships, such as ballast water discharge and the use of antifouling systems. ¹⁰⁸

Aside from global instruments, Canada is party to regional agreements that have further implications for ports. Transport Canada, as Canada's national maritime administration, is party to the Paris Memorandum of Understanding on Port State Control, covering the Northern European and North Atlantic area, and the Tokyo Memorandum of Understanding on Port State Control covering the Asia-Pacific region, both of which aim to coordinate inspections and share data on ships inspected in ports. These agreements facilitate the port inspections required under the IMO conventions discussed above. Canada is also party to the *Port State Measures Agreement* developed by the Food and Agricultural Organization of the United Nations and aimed at enhancing compliance of fishing vessels to international fisheries regulations through port

¹⁰⁶ MARPOL (n 104) Annex VI, regs 4, 14. 2009 Guidelines for Exhaust Gas Cleaning Systems, Resolution MEPC.184(59)(17 July 2009) [IMO EGCS Guidelines], as incorporated by VPDCR (n 105) ss 111(4)(a) and (6)(a), 111.1(7)(a).

¹⁰⁷ Ibid Annex VI. NAECA was adopted Amendments to the Annex of 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 (Designation of the United States Caribbean Sea Emission Control Area and exemption of certain ships operating in the North American Emission Control Area and the United States Caribbean Sea Emission Control Area under regulations 13 and 14 and Appendix VII of MARPOL Annex VI), IMO Resolution MEPC.202(62) (15 July 2011). VPDCR (n 105) s 110.3.

¹⁰⁸ International Convention for the Control and Management of Ships' Ballast Water and Sediments (adopted 13 February 2004, in force 8 September 2017), IMO Doc BWM/CONF/36 (16 February 2004); acceded to by Canada 8 April 2010) and implemented by the Ballast Water Regulations, SOR/2021-120. International Convention on the Control of Harmful Anti-fouling Systems (adopted 5 October 2001, in force 17 September 2008), Can TS 2010 No 15; acceded to by Canada 8 April 2010) and implemented by VPDCR (n 105) ss 127-131.

¹⁰⁹ Paris Memorandum of Understanding on Port State Control in Implementing Agreements on Maritime Safety and Protection of the Marine Environment (adopted 26 January 1982, in force 1 July 1982), 21 ILM 1; accepted by Canada 3 May 1994. Tokyo Memorandum of Understanding on Port State Control in the Asia-Pacific Region (adopted 1 December 1993, in force 1 April 1994); accepted by Canada 15 April 1994.

state inspections.¹¹⁰ In addition to these agreements, some of Canada's free trade agreements address port access for trading partners.¹¹¹

Finally, although not an international legal instrument, the uncodified international customary law concerning the granting of refuge to ships in distress is particularly relevant for ports and harbours. The custom, which traditionally provided a humanitarian duty for coastal State authorities to assist ships and crews, has been challenged in situations where substantial risk is posed to ports and coastal environments. Canadian ports follow the National Port of Refuge Contingency Plan and Transport Canada's instructions concerning permitting vessels in distress to enter havens in Canadian waters and the conditions of entry.

5. PORT POLICY AND ADMINISTRATION

5.1 National port policy

Contemporary Canadian port policy has its roots in the Canada National Marine Policy mentioned earlier and whose goals were legislated in the CMA. The policy as set out in the Act aims to provide Canada with the port infrastructure needed to promote national, regional, and local socio-economic objectives while promoting competitiveness and trade. Hence, it promotes ports to contribute to economic development and infrastructure and services based on international practices consistent with those of trading partners, with services that are responsive to user needs and provided at a reasonable cost. It aims at providing a high degree of autonomy for local and regional management to facilitate responsiveness to local needs and priorities. Port infrastructure and services are to be managed in a commercial and inclusive manner for users

¹¹⁰ Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (adopted 22 November 2009, in force 5 June 2016), [2010] ATNIF 41; ratified by Canada 20 June 2019.

¹¹¹ Canada-European Union Comprehensive Economic and Trade Agreement (CETA) (adopted 30 October 2016, not in force but provisionally applied), Chap 14, Reservation II-C-5, as implemented by Canada–European Union Comprehensive Economic and Trade Agreement Implementation Act, SC 2017, c 6. Canada-United States-Mexico Agreement (adopted 30 November 2018, in force 1 July 2020), https://www.international.gc.ca/trade-commerce/trade-agreements-accords-commerciaux/agr-acc/cusma-aceum/index.aspx?lang=eng, chap 24.

¹¹² A Chircop, O Linden and D Nielsen, "Characterising the Problem of Places of Refuge for Ships", in A Chircop and O Linden, eds., *Places of Refuge for Ships: Emerging Environmental Concerns of a Maritime Custom* (Leiden: Nijhoff, 2006), 1-31.

National Places of Refuge Contingency Plan (PORCP) - TP 14707 E (Transport Canada, 3 July 2007), https://tc.canada.ca/en/marine-transportation/marine-safety/national-places-refuge-contingency-plan-porcp-tp-14707-e. The plan notes that there could be conflict between the CMA s 58 power of ports to direct ships about to enter into port and Transport Canada's jurisdiction under the CSA 2001. The plan states that "[I]n such situations, every effort must be made for the responsible authorities to agree on a required course of action". Ibid. A port can be a suitable place of refuge. Ibid. Ports are an integral part of the risk assessment process leading to a decision. Ibid. National Marine Policy (n 31); CMA (n 1) s 4.

and communities. A core goal is the devolution of ports and facilities, and provision is made for coordination with other transportation systems. The policy also provides for a high level of safety and environmental protection but provides little detail in this regard.

The implementation of the CMA generated mixed reactions and concerns over port authorities, their governance structures, and abilities to operate commercially and autonomously as was intended. The Act and its underpinning policy were reviewed in 2003 and re-envisaged through the promotion of transportation gateways, ¹¹⁵ but issues continued to persist. ¹¹⁶ The environmental concerns included concern over the liability of port authorities and their board directors and officers for liability exposure and indemnification of claims concerning pre-existing environmental issues. ¹¹⁷ The review recommended exemption from environmental liability under the *Port Authorities Operations Regulations* (PAOR) and other federal environmental legislation for pre-existing issues. ¹¹⁸ The federal government should be responsible for the cost of identifying, monitoring and reporting environmental risks extant at the time of creation of port authorities, and that port authorities should be responsible for the cost of maintaining current information on environmental risks arising after their creation. ¹¹⁹

Concerns over the ability of port authorities to operate efficiently and competitively remained. More recently, a three-year ports modernization review concluded with the adoption of new policy directions "to advance the role of Canada Port Authorities and optimize their current and future roles". The federal government intends to table amendments on the management and operation of ports under the CMA that will include adjustments to port governance, enable ports to be effective instruments of public policy, ensure their continued competitiveness, strengthen their relationships with Indigenous Peoples and local communities, encourage ports to assume a leadership role in greening the marine sector by promoting environmentally sustainable infrastructure and acting on climate change, provide further protection of port safety and security, and adopt a new investment policy for ports and their infrastructure.

¹¹⁵ Transport Canada, *The Canada Marine Act—Beyond Tomorrow: Report of the Review Panel to the Minister of Transport* (TP-1407B). Ottawa: Transport Canada 2003) [CMA Review].

¹¹⁶ M Brooks, "Gateways and Canada's Ports Policy: Issues and Impediments", presented at International Conference on Gateways and Corridors, Vancouver, BC, May 2007.

¹¹⁷ CMA Review (n 115) 32-33.

¹¹⁸ Ibid.

¹¹⁹ Ibid.

¹²⁰ "The Government of Canada announces how it will change the way ports work to strengthen our supply chain and make life more affordable", Transport Canada News Release (11 October 2022).

¹²¹ Ibid.

5.2 Ports managed by Canada Port Authorities

Definition

A port authority is a body incorporated under the CMA with jurisdiction over a port having defined terrestrial and marine areas. Port is defined as "navigable waters under the jurisdiction of a port authority and the real property and immovables that the port authority manages, holds or occupies as set out in the letters patent," while port facility means "a wharf, pier, breakwater, terminal, warehouse or other building or work that is located in, on or adjacent to navigable waters that is used in connection with navigation or shipping, land incidental to its use and any land adjacent to navigable waters that is used in connection with navigation or shipping." The PAOR apply to "the navigable waters of a port, works and activities in a port and the property managed, held or occupied by a port authority". 124

The actual geographical extent of the port, and hence a port authority's jurisdiction, is set out in the port's Letters Patent. The geographical extent can be extensive. For example, while Vancouver harbour extends to 233 kilometres of coastline (US border/Roberts Bank through Sturgeon Bank, English Bay, and Burrard Inlet to Port Moody) (see Figure 1), the Vancouver Fraser Port Authority has proprietary jurisdiction over 150 kilometres of shoreline and including seabed areas and reclaimed lands. 125



Figure 1: Vancouver Fraser Port Authority jurisdiction 126

¹²² CMA (n) s 5.

¹²³ Ibid s 2(1).

¹²⁴ PAOR (n) s 2.

¹²⁵ The Vancouver Fraser Port Authority consists of the amalgamated Vancouver Port Authority, the Fraser River Port Authority and the North Fraser Port Authority. Certificate of Amalgamation of Port Authorities, P.C. 2007-1885, 6 December 2007, *Canada Gazette*, vol. 141, no. 51, 22 December 2007, Schedule A.

Port of Vancouver, https://www.portvancouver.com/wp-content/uploads/2015/05/Map_Jurisdiction-scaled.jpg.

Legal status

The *Constitution Act* designates "public harbours" as property of Canada and are thereby administered by the federal government. Defining "public harbours" has historically been a complex question, but at a minimum such ports and harbours that were vested in the provinces in pre-confederation times are deemed to be public harbours transferred to Canada on confederation. This includes the major ports. Agreements between the federal government and the provinces have also served to clarify property in public ports. In the contemporary context, the CMA has clarified the legal status of ports. However, the fact that ports are vested in the federal government in a propriety sense does not necessarily mean that the application of provincial law is excluded in its entirety.

Port authorities are created under the CMA pursuant to the federal constitutional powers concerning public property and navigation and shipping. They function as Crown agents in performing their traditional activities related to shipping, navigation, carriage and handling of goods, and passenger transportation. However, they function on their own behalf when undertaking other necessary commercial activities to support port operations, such as those that help generate revenue for the port. Thus, port authorities act as public entities in some respects and as commercial entities in other respects. A port's Letters Patent will indicate what federally-owned lands are allocated to it for management as a Crown agent, and other property other than federal real property that is owned or occupied by the relevant authority. The former property are necessary for port purposes and the latter property to support port operations. Port authorities can alienate or use as security the latter property, but not the former property. They do not enjoy Crown immunity.

¹²⁷ Property of Canada under Schedule III, *Constitution Act*, 1867.

¹²⁸ G V La Forest, "The Meaning of 'Public Harbours' in the Third Schedule to the British North America Act, 1867", (1963) Canadian Bar Review XLI: 519-537.

¹²⁹ Ibid at 527. For example, Halifax, Montreal, Quebec, Toronto, and Vancouver.

¹³⁰ Ibid at 535

¹³¹ BC v Lafarge (n 7); B Balantyne, Water Boundaries on Canada Lands: That Fuzzy Shadowland (Edmonton: Natural Resources Canada, 2016), 69; G V La Forest, Natural Resources and Public Property under the Canadian Constitution, 2d ed (Toronto: University of Toronto Press, 1969), at 49 et seq.

¹³² BC v Lafarge (n 7), para 42.

¹³³ CMA (n 1) s 7(1).

¹³⁴ Ibid s 28(2)-(3).

¹³⁵ Mayer (n 6) at 139-140

¹³⁶ CMA (n 1) s 8(2).

¹³⁷ Ibid s 31(3).

Powers

Port authorities are endowed with management, permitting, regulatory powers to enable them to operate their respective port lands and waters, ¹³⁸ and certain enforcement powers. ¹³⁹ The powers are limited to activities concerning shipping, navigation, carriage of goods and passengers, cargo handling and storage and other activities as set out in legislation and in the Letters Patent and must be exercised in compliance with that mandate. ¹⁴⁰ In addition, the Governor in Council may enact further regulations specific to a port. ¹⁴¹

The port authorities' powers include construction, purchasing, leasing, operating and maintaining, lands, buildings and infrastructure, as well as railways and airports in port lands. They have the power to make investments may borrow money commercially on their own behalf and not as Crown agents. In certain circumstances the Minister of Finance, on the recommendation of the Minister of Transport, may restrict borrowing powers. However, when contracting as agents of the Crown, they are answerable to the Crown for the performance of those contracts.

At this time port authorities have limited policy-making and regulatory powers. This may change following the recent announcements of changes to the CMA discussed earlier. Currently, policy-making is restricted to the ports' commercial operations, and they cannot make public policy. They have the power to make by-laws to regulate the affairs of the port authority and the duties of officers and employees. ¹⁴⁷ In the case of the Vancouver Fraser Port Authority (VFPA), the Letters Patent include regulatory power for "development, application, enforcement and amendment of rules, orders, bylaws, practices or procedures and issuance and administration of authorizations respecting use, occupancy or operation of the port". ¹⁴⁸

Port authority powers extend to the orderly use and management of ports to ensure there are no interferences with navigational uses and creation of safety risks to persons and ships due to obstructions, interference with authorized activities, diversion of physical features as to

¹³⁸ PAOR (n 37) Part 3.

¹³⁹ CMA (n 1) s 28(1).

¹⁴⁰ Ibid s 28(2) and (4).

¹⁴¹ Ibid s 62(1).

¹⁴² Ibid s 29.

¹⁴³ PAOR (n 37) s 31.

¹⁴⁴ CMA (n 1) s 28(5) and (6).

¹⁴⁵ Ibid s 28(7).

¹⁴⁶ Ibid s 28(9).

¹⁴⁷ Ibid s 30.

¹⁴⁸ VFPA Letters Patent (n 92) art 7(1)(a).

reduce depth of waters, nuisance, and compromised sediment or water quality.¹⁴⁹ A harbour official may instruct on a precautionary basis the cessation of activities or require an activity to be conducted on the basis of conditions to mitigate or prevent such problems.¹⁵⁰ Harbour uses may be authorised with or without conditions, possibly including a requirement for insurance cover, or performance or damage security.¹⁵¹ Authorization of a use may be withdrawn if there is non-compliance, and indeed instructions to cease, remove, return and restore may be issued, and in the event the user fails to remove the thing at issue or restore the property immediately, the port may remove the object.¹⁵² If a person does not immediately remove refuse, polluting substances, ship's gear or any other object that interferes with navigation, the port authority may remove the matter at the expense of the person concerned.¹⁵³

Significantly, the IAA empowers port authorities to conduct environmental reviews.¹⁵⁴ Port authorities enjoy land use planning powers within their geographical remit, which requires the development of a land use plan as in the case of the VFPA.¹⁵⁵ The consequence is that the stakeholders of a port will include municipalities and communities affected by their land use plans, thus necessitating public consultations in development planning. A port authority's landuse plans are not regulations, and their provisions apply only to lands owned by the authority.¹⁵⁶

A port authority's power to conduct and monitor operations includes port traffic control, and there is currently a legislative proposal to strengthen this power. Bill C-33 will include a new purpose in the CMA to "manage traffic, including mooring and anchorage, in order to promote the efficiency of supply chains". Currently, the port authority's power in this regard is to promote safe and efficient navigation and environmental protection in port waters and includes monitoring of ships in or entering port waters, establishing vessel practices and procedures, requiring ships to have the capacity to use specified radio frequencies, and establishing traffic control zones. Regulations under the CMA empower port authorities to require information to be submitted by ships for traffic clearance, to impose conditions for traffic clearance, and to require vessel information after traffic clearance is granted. A port's vessel traffic services are

¹⁵⁰ Harbour Use Regulations (n 35) s 10(1); PAOR (n 37) s 19.

¹⁴⁹ PAOR (n 37) s 5.

¹⁵¹ Harbour Use Regulations (n 35) ss 14-16; PAOR (n 37) ss 25, 27-29.

¹⁵² Harbour Use Regulations (n 35) s 17; PAOR (n 37) s 31.

¹⁵³ PAOR (n 37) s 13(2) and 31(4)-(5).

¹⁵⁴ IAA (n 55) s 82.

Port of Vancouver/Vancouver Fraser Port Authority, *Land Use Plan* (8 December 2020, https://www.portvancouver.com/wp-content/uploads/2019/11/500_POV-Land-Use-Plan_FINAL-2.pdf.

¹⁵⁶ CMA (n 1) s 48(9).

¹⁵⁷ Bill C-33 (n 32) s 100(f.2).

¹⁵⁸ CMA (n 1) s 56(1).

¹⁵⁹ Ibid s 56(2); PAOR (n 37) s 32.

expected to be consistent with national standards and practices established under the CSA 2001.¹⁶⁰ Unless there is an urgent situation, a proposed vessel traffic services measure must give reasonable notice and consider representations by stakeholders.¹⁶¹

Port authorities may designate persons to exercise powers concerning ships in or about to enter their ports. These persons may issue traffic clearances, direct the master or officer on watch or pilot on board to provide information on the ship, direct the ship to use specified radio frequencies in communications with the port station or other ships, and specify the time for ships to leave berth, leave or refrain from entering any area, or to proceed to or remain at a specified location. However, there must be reasonable grounds for requiring a vessel to proceed to or stay at a particular location, and such instruction must be founded on specified circumstances. For example, a berth might not be available; there is pollution or a reasonable apprehension of pollution in the traffic control zone; the proximity of animals to the ship whose well-being could be endangered by the ship; an obstruction to navigation in the traffic control zone exists; presence of a ship in apparent difficulty or presenting a pollution threat or other hazard to life or property; proximity of a ship navigating in an unsafe manner or that is unseaworthy; vessel traffic congestion posing risks; and efficiency of port operations could be compromised. Ships are required to follow the directions issued. Ships are

A port authority's powers and duties include the taking of appropriate measures to maintain order and safety for persons and property in the port¹⁶⁵ and subject to regulations under the *Marine Transportation Security Act*.¹⁶⁶

¹⁶⁰ CMA (n 1) s 56(3); Vessel Traffic Services Zones Regulations, SOR/89-98.

¹⁶¹ Port Authorities should give 30 days notice and provide an opportunity for stakeholders to make representations. The measure is adopted and publicized after representations are considered. CMA (n 1) s 57.

¹⁶² Ibid s 58(1).

 $^{^{163}}$ lbid s 58(2). Lack of seaworthiness refers to a ship whose navigation or radio equipment is not function properly or does not have on board the charts and publications required by s 120(1)(b) of the CSA 2001 (n 43).

¹⁶⁴ Ibid s 58(3).

¹⁶⁵ Ibid s 61(1).

¹⁶⁶ Ibid s 61(2); *Marine Transportation Security Regulations*, SOR/2004-144.

5.3 Public ports

Definition

Public ports and public port facilities are designated as such by the Governor in Council under the CMA.¹⁶⁷ Their geographical scope is defined by regulation in Schedule 1 of the *Public Ports and Public Port Facilities Regulations* (Public Ports Regulations).¹⁶⁸

Legal status

The earlier discussion on 'public harbours' transferred by the provinces to Canada on confederation applies to public ports. While not all ports were transferred by the provinces to the federal level on confederation, the CMA sets out the legal regime applying to all ports. While ports under port authority management have broad national and international significance, public ports have regional importance. They may be owned by the federal government or other entities such as provinces, municipalities, and not-for-profit bodies. As in the port authority-managed ports, while the federal level retains primary jurisdiction in accordance with constitutionally allocated owners, provincial law may apply to particular matters.

Powers

Public ports do not enjoy the autonomy ascribed to port authorities, and hence their powers are limited, with the Minister of Transport performing the key responsibilities. Unless they fall under the authority of another minister, the Minister is responsible for the administration of the federal real property and immovables forming part of a public port or facility, 169 issuing leases and licences concerning federal real property and immovables, 170 disposal or transferring the administration over federal real property and immovables, 171 fixing fees for port use, 172 and for entering into agreements to provide services, rights, or privileges in the public port. 173 Harbour masters or wharfingers for public ports and facilities are appointed by the Minister. 174 The Minister may also enter into agreements with a person or body concerning the management or

¹⁶⁷ CMA (n 1) ss 2(1) and 65.

¹⁶⁸ Public Ports and Public Port Facilities Regulations, SOR/2001-154 [Public Ports Regulations].

¹⁶⁹ CMA (n 1) s 66.

¹⁷⁰ Ibid s 71.

¹⁷¹ Ibid s 72.

¹⁷² Ibid s 67.

¹⁷³ Ibid s 68.

¹⁷⁴ Ibid s 69.

operation of a public port or public port facility.¹⁷⁵ The person or body designated by the Minister may take traffic control zone measures as in the case of port authorities.¹⁷⁶

The powers of public port officials for the orderly use, management and protection of public ports are largely analogous to those of port authorities to ensure there are no interferences with navigational uses, safety risks to persons and ships due to obstructions, interference with authorized activities, diversion of physical features, nuisance, compromise of physical features and adverse effects on public port operations.¹⁷⁷ Similarly, public port officials may remove refuse, polluting substances, cargo, ship's gear and other objects interfering with navigation at the expense of the perpetrator. 178 Port officials may also instruct port users to cease an activity or take precautionary measures with respect to the above risks. 179 Port officials themselves have similar duties to take appropriate measures with respect to activities they propose to mitigate or prevent the above risks, and taking into account safety concerns, environment protection, and public port infrastructure. 180 As in the case of port authorities, public port officials may authorise public port uses by specific persons, with or without conditions, insurance cover, or performance or damage security. 181 Authorization may be withdrawn on similar grounds and instructions to cease, remove, return and restore may be issued. In case of non-compliance, the port official may remove the object at the expense of the person concerned. 182 A public port official may order the removal of a ship from one port area to another, or if it interferes with navigation, and in case of non-compliance may have it removed at the expense of the person concerned. 183

5.4 Fishing and recreational harbours

Definition

The earlier discussion on 'public harbours' transferred by the provinces to Canada on confederation applies to some extent to fishing and recreational harbours. These smaller harbours have local significance, and their legal status and governance are set out in the FRHA. Again, they may be owned by the federal government or other entities such as provinces,

¹⁷⁵ Ibid s 70.

¹⁷⁶ Ibid s 76.

¹⁷⁷ Public Ports Regulations (n 168) s 14.

¹⁷⁸ Ibid s 23.

¹⁷⁹ Ibid s 29(1).

¹⁸⁰ Ibid s 30.

¹⁸¹ Ibid ss 35-36.

¹⁸² Ibid ss 37, 39.

¹⁸³ Ibid s 43.

municipalities, and not-for-profit bodies. And, as in the case of ports, the federal level retains primary jurisdiction while provincial law may apply to particular matters.

Fishing and recreational harbours are terrestrial-marine spaces where fishing and recreational vessels and their occupants are accommodated and serviced, and these are mainly of two types. The first includes harbours, wharfs, piers, breakwaters, slipways, and marinas, and includes their machinery, works, land and structures. The second includes any other facilities installations and works located on or adjacent to water. As in the case of ports managed by port authorities and public ports, fishing and recreational harbours are scheduled in the regulations. Although DFO owns many small craft harbours, a substantial number are run by not-for-profit local harbour authorities, and many are divested mostly to local municipalities.

Legal status

The legal status of harbours is similar to ports. Harbours are owned by the Crown, but ownership may be transferred to provinces, municipalities, Indigenous communities, and not-for-profit organizations. Differently from the Minister of Transport's responsibility for ports under the CMA, fishing and recreational harbours are the responsibility of the Minister of Fisheries and Oceans under the FRHA. Although there may be delegation or divestiture of management responsibilities to persons or bodies in a province, the Minister of Fisheries and Oceans remains responsible.

Powers

The Minister is responsible for the use, management, maintenance, enforcement of regulations, and collection of charges in scheduled harbours. Ministerial powers include undertaking projects to acquire, develop, construct, improve and repair scheduled harbours and to enter into an agreement with a province or person for this purpose, financing of projects, and undertaking studies. The Minister is empowered to lease scheduled harbours and to grant licences for their use for up to a 20-year period, and to enter into agreement with a province for the occupancy, 189

¹⁸⁴ FRHA (n 27) s 2.

¹⁸⁵ Ibid sch 1.

DFO, Small Craft Harbours Program, https://www.dfo-mpo.gc.ca/sch-ppb/aboutsch-aproposppb/index-eng.html.

¹⁸⁷ FRHA (n 27) s 4.

¹⁸⁸ Ibid s 5. Provisions to be included in the agreement are specified in s 7.

¹⁸⁹ Ibid s 8.

although leases and licences must preserve public access to the harbour.¹⁹⁰ Decisions by the Minister and harbour authorities are subject to judicial review.¹⁹¹

The Minister may appoint harbour managers, officers and employees for the operation, administration and management of scheduled harbours. The Minister is also empowered to designate enforcement officers who have significant authority to enforce the regulations and even to prohibit the use of a scheduled harbour in cases of non-compliance. The enforcement officer may direct the removal of abandoned vessels and goods that impede, interfere, or render difficult or dangerous to use the harbour and has the power of removal for this purpose. Other enforcement powers for infringements of the regulations include seizure and detention. Further, the Minister has the power to apply for a judicial sale. In the case of accidents, the Minister may direct an inquiry subject to the Canadian Transportation Accident Investigation and Safety Board Act.

Harbour managers have extensive powers to ensure orderly and safe use of harbours. For example, a harbour master may prohibit dangerous goods, ¹⁹⁹ provide directions for berthing, mooring, and moving of vessels and loading and unloading, ²⁰⁰ authorization of supply and receipt of bunker fuels, and directions for the disposal of garbage²⁰¹ and sewage or other wastes. ²⁰²

The Department of Fisheries and Oceans runs the Small Craft Harbours Program to promote a national network of harbours managed and maintained by self-sufficient harbour authorities representing the interests of local communities and stakeholders. ²⁰³ The programme enables the transfer of ownership of non-essential harbours and recreational harbours to other federal departments, provinces, municipalities, Indigenous communities and not-for-profit organizations. Harbour authorities are incorporated as not-for-profit organizations run by boards of directors representing local stakeholders and managing, operating, and maintaining harbours

¹⁹⁰ FRHR (n 40) s 6.

¹⁹¹ Archer v Canada (Attorney General), 2012 FC 1175; Morton v. Canada (Fisheries and Oceans), 2015 FC 575.

¹⁹² FRHA (n 27) s 27.

¹⁹³ Ibid s 10.

¹⁹⁴ Ibid s 11.

¹⁹⁵ Ibid s 14.

¹⁹⁶ Ibid ss 15-17.

¹⁹⁷ Ibid s 19.

¹⁹⁸ Ibid s 26(1).

¹⁹⁹ Ibid s 8.

²⁰⁰ Ibid s 14.

²⁰¹ Ibid s 14.

²⁰² Ibid s 25.

²⁰³ Small Craft Harbours Program (n 186).

through lease agreements.²⁰⁴ DFO maintains manuals for the governance of harbour authorities,²⁰⁵ one of which concerns environmental management responsibilities.²⁰⁶ Harbour authorities are usually required to develop an environmental management plan and have pollution prevention responsibilities.²⁰⁷

6. Environmental protection regulation

6.1 General

As noted earlier, a port authority's purpose is the operation of the port with respect to matters concerning navigation and shipping as set out in the Letters Patent.²⁰⁸ It must do so in a sustainable manner and bearing in mind, among other, the protection of the marine environment. Each major port has articulated its own environmental mission based on their respective Letters Patent and drawing on the applicable port and environmental regulation.²⁰⁹ By way of example, the VFPA's regulatory power on environmental matters in its Letters Patent includes the development and operation of port infrastructure, environmental assessment, audit, remediation and rehabilitation of marine habitat and marshes, dredging and waste disposal, navigational services and aids, emergency planning and response, salvage and seizure, harbour patrol services of the port's navigable waters, provision of vessel refuelling stations, vessel towage, management of waterways and foreshore, and complying with any international convention, agreement or arrangement to which Canada is party.²¹⁰

While from an environmental perspective the purposes of the CMA are to promote sustainability and provide for a high level of environmental protection, the Act itself does not

²⁰⁴ DFO, Harbour Authorities (26 October 2017), https://www.dfo-mpo.gc.ca/sch-ppb/aboutha-aproposap/information-eng.html.

²⁰⁵ DFO, Small Craft Harbours: Harbour Authority Manual/Governance 2011, < https://waves-vagues.dfo-mpo.gc.ca/library-bibliotheque/40728183.pdf>; DFO, Small Craft Harbours: Harbour Authority Manual/Finance 2012, <https://waves-vagues.dfo-mpo.gc.ca/library-bibliotheque/40728146.pdf>; DFO, Small Craft Harbours: Harbour Authority Manual/Operations 2021, <https://www.dfo-mpo.gc.ca/sch-ppb/documents/manual-manual/ha-manual-operations-manuel-ap-2021-eng.pdf>.

²⁰⁶ DFO, Small Craft Harbours: Harbour Authority Manual/Environment 2012, https://waves-vagues.dfo-mpo.gc.ca/library-bibliotheque/40728110.pdf>.

²⁰⁷ Ibid.

²⁰⁸ Ibid s 28(1)-(2).

For example: Port of Halifax, Environmental Policy, https://www.portofhalifax.ca/policies-and-planning/environment/environmental-policy/; Port of Montreal, Sustainable Development Actions, https://www.port-montreal.com/en/the-port-of-montreal/social-responsibility/sustainable-development; Port of Vancouver, Environment Protection at the Port of Vancouver, https://www.portvancouver.com/environmental-policy/; Port of Vancouver, https://www.portvancouver.com/environmental-policy/; Port of Vancouver, http

²¹⁰ VFPA Letters Patent (n 92) arts 7 and 11.1.

contain the full suite of regulatory tools applicable to port and harbour authorities. The regulations concerning sustainability and environment protection is spread across several federal statutes and subsidiary regulations. The purpose of this part of the report is to explain how federal environmental statutes apply to ports and harbour activities and the regulatory tools and measures available. To facilitate a focussed discussion, attention will be paid to major environmental concerns in ports, namely promotion of sustainable port activities, prevention of marine and atmospheric pollution, decarbonization, and protection of marine biological diversity.

6.2 Promotion of sustainable port activities

The declaration of the national transportation policy in the *Canada Transportation Act* "contributes a sustainable environment", but the provisions of the Act have little environmental content, let alone placing sustainability at the centre of transport policy. Somewhat similarly, while the CMA sets out a "high level of environment protection" in its purposes, the pursuit of sustainability in an integrated manner is not an express objective of the Act. However, Bill C-33 proposes an important amendment to the CMA to strengthen climate regulation, as will be seen further below. The FRHA makes no reference whatsoever to sustainability. Surely, these statutes provide for the making of environmental regulation, but the actual impact assessment of their activities is governed by other legislation.

The IAA, as a statute of general application and its regulations are the principal federal instruments that mandate and set out procedures for the pursuit of sustainability across the federal government, and thereby also in ports and harbours. Previously, the *Canadian Environmental Assessment Act*²¹⁴ provided a multiple level legal framework for assessing environmental impacts and the *Canada Port Authority Environmental Assessment Regulations* were adopted to prescribe assessments at the port level.²¹⁵ These regulations ceased to have legal effect and are spent under the IAA's transitional provisions and accordingly will be repealed in due course.²¹⁶

²¹¹ Canada Transportation Act (n 30) s 5.

²¹² CMA (n 1) s 4(d).

²¹³ Bill C-33 (n 32) s 107(2).

²¹⁴ Canadian Environmental Assessment Act, 2012, SC 2012, c 19.

²¹⁵ Canada Port Authority Environmental Assessment Regulations, SOR/99-318.

²¹⁶ IAA (n 55), ss 178-179; Government of Canada, Forward Regulatory Plan: 2022-2024 (last update 24 April 2022), https://www.canada.ca/en/impact-assessment-agency/corporate/acts-regulations/forward-regulatory-plan/iaac-frp-2022-2024.html.

The first express purpose of the IAA is to foster sustainability,²¹⁷ defined as "the ability to protect the environment, contribute to the social and economic well-being of the people of Canada and preserve their health in a manner that benefits present and future generations".²¹⁸ A corollary purpose is "to protect the components of the environment, and the health, social and economic conditions that are within the legislative authority of Parliament from adverse effects caused by a designated project".²¹⁹ The IAA applies to all federal activities on federal lands, defined as lands that include those owned by the Crown (including waters and airspace), internal waters and territorial sea, thus encompassing all geographical areas within the remits of ports.²²⁰ Among the prohibitions in the Act are activities in the marine environment that produce change to species and habitats protected under the *Fisheries Act*, SARA and MBCA.²²¹

Designated projects are physical activities on federal lands pre-designated in a list in the *Physical Activities Regulations* or designated by the ECCC Minister²²² in situations where the Minister is of the opinion that the physical activity "may cause adverse effects within federal jurisdiction or adverse direct or incidental effects, or public concerns related to those effects warrant the designation", and may include adverse effects on Indigenous peoples.²²³ Specific examples of designated projects in the port environment include new marine terminals, new waste management facilities and waste disposal at sea in protected areas, and generally construction, operation, decommissioning of new terminals to handle ships larger than 25,000 deadweight tons.²²⁴ Prior to the IAA, the construction of new terminals on existing port lands was exempted for public policy reasons.

The IAA establishes the Impact Assessment Agency of Canada (IAAC) (as a continuation of the Canadian Environmental Assessment Agency under previous legislation)²²⁵ at the centre of the system and the Canadian Impact Assessment Registry consisting of an internet site with files on all impact assessment processes undertaken under the Act.²²⁶ While the IAAC is overseen by the ECCC Minister, it enjoys a measure of independence, for example to manage time limits. The Agency is also able to delegate part of the impact assessment process and preparation of the report to a province or Indigenous body.²²⁷

²¹⁷ IAA (n 55) s 6(1)(a).

²¹⁸ Ibid s 2.

²¹⁹ Ibid s 6(1)(b).

²²⁰ Ibid s 2.

²²¹ Ibid s 7(1)(a).

²²² Ibid s 2. *Physical Activities Regulations*, SOR/2019-285.

²²³ IAA s 9(1), (2).

²²⁴ Physical Activities Regulations (n 222) s 2(1) and sch.

²²⁵ IAA (n 55) ss 155-165.

²²⁶ Ibid ss 104-108.

²²⁷ Ibid s 29.

The IAA establishes an impact assessment system in five phases that include planning, impact statement, impact assessment, decision-making and post-decision follow-up for designated projects, underscored by public access to information and consultation and a focus on Indigenous peoples and their constitutionally protected rights. At the planning stage, the IAAC is able to determine whether to proceed with the assessment and if it needs to coordinate with other federal authorities (such as ports), provinces or Indigenous bodies.²²⁸ As experts in their fields, ports are required to cooperate with the IAAC.²²⁹ The ECCC Minister may also terminate the process if the proposed project causes unacceptable environmental effects. ²³⁰ If the project is to proceed with an impact assessment, the Agency has 180 days to decide and issue a notice of assessment, including the factors to be addressed.²³¹ The ECCC Minister also has discretion to refer an impact assessment to a review panel (including a joint review panel with other jurisdictions) if it is in the public interest to do so and for which the IAAC will set the timeline for the panel's review and recommendations.²³² The impact assessment must consider several factors, including impacts on Indigenous rights, extent of contribution to sustainability, and Canada's ability to meet its climate law commitments.²³³ The ECCC Minister may also approve the impact assessment of another jurisdiction in lieu of the IAA process. At the decision-making stage, the ECCC Minister decides whether the adverse effects indicated in the impact assessment report are in the public interest or refer the decision to the Governor in Council.²³⁴ The Minister's decision must be based on the report and consideration of, among other, the extent to which the designated project contributes to sustainability, the adverse effects within federal jurisdiction and whether they are significant, mitigation measures the Minister considers appropriate, the impact on Indigenous groups and rights, and whether the effects hinder or contribute to Canada's ability to meet its environmental obligations and commitments in respect of climate change. 235

The designated federal authorities tasked with undertaking impact assessments of effects of designated projects include port authorities.²³⁶ Ports are required, among other, to pursue sustainability and environmental protection and to ensure that designated projects under the Act are "considered in a careful and precautionary manner to avoid adverse effects within federal

²²⁸ Ibid s 14.

²²⁹ Ibid ss 13 and 23.

²³⁰ Ibid s 17(1).

²³¹ Ibid s 16.

²³² Ibid ss 31(1) and 39(1).

²³³ Ibid s 22(1).

²³⁴ Ibid s 60.

²³⁵ Ibid s 63.

²³⁶ Ibid ss 2 (definition of federal authority), 109(a), sch 1. However, harbour commissions previously established under the now repealed *Harbour Commissions Act* are not included in the definition of federal authority.

jurisdiction and adverse direct or incidental effects".²³⁷ Ports must pursue designated projects in accordance with the IAA, unless the IAAC determines no impact assessment for the project is required or where the effects of the projects are deemed to be in the public interest.²³⁸ In addition to the impact assessment requirements of physical activities on the designated list and determinations by the ECCC Minister, ports are still required to undertake assessments for other activities. A port authority must not carry out a project or exercise any power under the CMA unless it first determines that the carrying out of the project is not likely to cause significant adverse environmental effects or the project is likely to cause such adverse effects and the Governor in Council decides they are justified in the circumstances.²³⁹ An interesting example is the establishment of new bunkering facilities in ports for the various types of renewable fuels currently under consideration, such as hydrogen and ammonia, which are not among the designated physical activities. Although this activity facilitates the decarbonization of shipping and promotes a port's competitiveness, it is an activity that would require impact assessment by the port authority concerned.

In undertaking impact assessments, ports are expected to track the requirements of the IAA. However, if a proposed project is a designated project under the Physical Activities Regulations, the proponent is expected to first engage with the IAAC. Some port authorities have developed their own impact assessment review process for non-designated projects. One of the most advanced, in the opinion of the author of this report, is the VFPA Project and Environmental Review Process, which sets out the principles, review categories, and review steps.²⁴⁰ The categories are A, B, C, D, with A consisting of minor projects that do not necessitate public engagement and Indigenous consultations; category B is still minor in scale and may require public engagement and Indigenous consultation; Category C projects are larger and more complicated and anticipating public engagement and Indigenous consultation, including 30 days for public comments on the IAAC registry website; and category D are large high impact projects which trigger engagement and consultation, as well 30 days for comment on the IAAC registry website.²⁴¹

6.3 Decarbonization

The international regulation of GHG emissions is primarily the responsibility of the IMO, and it is currently in the process of finalizing its GHG Strategy for adoption in 2023 with a focus on

²³⁷ Ibid s 6(1)(a), (b), (d), (l).

²³⁸ Ibid s 8.

²³⁹ Ibid s 82.

²⁴⁰ Project and Environmental Review Process Application Guide (Vancouver Fraser Port Authority, September 2022), https://www.portvancouver.com/wp-content/uploads/2019/09/2021-05-05-PER-Application-Guide.pdf.

²⁴¹ Ibid.

reducing emissions from shipping.²⁴² The IMO GHG Strategy recognizes the important role that could be played by ports in facilitating the decarbonization of shipping, although IMO regulation *per se* does not address ports and at the most can only make recommendations in their regard.²⁴³ Further, although the GHG emissions of international shipping are not reported at the national level, emissions from port activities and cabotage are considered domestic emissions and are therefore reported as part of the NDCs.²⁴⁴ Against this backdrop, ports are responsible for reducing their emissions and also play a potentially significant facilitative role in the decarbonization of shipping.

Canada committed to developing a plan to set itself on a path to achieve net-zero-emissions by 2050 and legislated the *Canadian Net-Zero Emissions Accountability Act* as a framework for this purpose and the Minister is tasked with establishing GHG emission targets and reduction plans for each milestone year.²⁴⁵ Canada's 2021 NDC did not single out the contribution of ports in reducing emissions and the only reference to marine emissions concerns the 1% contribution of all shipping to Canada's emissions and a commitment to international cooperation in decarbonization of the industry.²⁴⁶

At COP 26 in November 2021, Canada signed the shipping industry's Clydebank Declaration for Green Shipping Corridors, an aspirational document aimed at supporting "the establishment of green shipping corridors – zero-emission maritime routes between 2 (or more) ports" and with the "collective aim to support the establishment of at least 6 green corridors by the middle of this decade, while aiming to scale activity up in the following years". The federal government proceeded to establish a "Canadian Green Shipping Corrdiors Framework to assist parties (including ports) interested in developing green shipping corridors. The port and

²⁴² IMO Initial Strategy for the Reduction of Greenhouse Emissions from Ships, Resolution MEPC.304/72 (18 May 2018).

A Chircop, "The IMO Initial Strategy for the Reduction of GHGs from International Shipping: A Commentary",
 (2019) 34 International Journal of Marine and Coastal Law 482-512 at 500-501.
 Ibid.

²⁴⁵ Canadian Net-Zero Emissions Accountability Act (n 52) ss 6-9.

²⁴⁶ Canada's 2021 Nationally Determined Contribution under the Paris Agreement, UNFCCC https://unfccc.int/sites/default/files/NDC/2022-

^{06/}Canada%27s%20Enhanced%20NDC%20Submission1 FINAL%20EN.pdf>.

²⁴⁷ GOV.UK, Department of Transport, Policy paper: COP 26: Clydebank Declaration for Green Shipping Corridors (Updated 13 April 2022), https://www.gov.uk/government/publications/cop-26-clydebank-declaration-for-green-shipping-corridors. Canada joined the Clydebank Declaration at the 26th Conference of Parties to the UN Framework Convention on Climate Change (UN Department of Economic and Social Affairs (Sustainable Development), https://sdgs.un.org/partnerships/canada-joined-clydebank-declaration-26th-conference-parties-un-framework-convention.

²⁴⁸ Transport Canada, Minister of Transport announces Canadian Green Shipping Corridors Framework and Canada joining the Zero-Emission Shipping Mission (News Release, 7 November 2022), https://www.canada.ca/en/transport-canada/news/2022/11/minister-of-transport-announces-canadian-green-

harbour emission reduction initiatives to receive support include net-zero emission fuels and technologies, shore power access, better energy efficiency and operations improvements.²⁴⁹

The CMA is weak on climate targets and decarbonization as it is on sustainability. Similarly, although the CSA 2001 and regulations address a range of air emissions, there is relatively little on decarbonization, other than implementation of IMO indices for energy efficiency of ships,²⁵⁰ and what there is provides little legal guidance for ports at this time. The uncertain international regulatory environment concerning targets for shipping emissions and the likely fuels which will help transition and eventually wean shipping off hydrocarbons poses challenges for ports in investing in bunker infrastructure. At the domestic level, and other than the recent announcement of support for green corridors, Transport Canada does not appear to have established a policy to guide ports' actual efforts to reduce GHG emissions, nor does it appear to have to have developed voluntary emission reduction agreements from the domestic marine sector as it has for the rail and aviation industries.²⁵¹ However, it has encouraged port initiatives to reduce port-related emissions, for example with respect to trucking, and provides cost-shared funding for installation of shore power systems for ships at berth, most especially for cruise ships.²⁵² It appears cruise ships are better equipped to receive shore power than other commercial vessels which lack standardized systems to plug into grids. Few Canadian ports have shore power due to the expense involved and the need for power to be supplied at preferential rates.253

Following the recent policy initiatives in the wake of COP 26 and the Clydebank Declaration, the national regulatory environment is about to change with Bill C-33, s 101 (1.1), which includes new provisions on environment and climate change. The Governor in Council will be empowered to may make regulations "respecting the impact of the operation of a port by a port authority on the environment, including climate change, and the impact of climate change on the operation of a port". ²⁵⁴ The regulations will include:

shipping-corridors-framework-and-canada-joining-the-zero-emission-shipping-mission.html>. Transport Canada, Canadian Green Shipping Corridors Framework (15 November 2022), https://tc.canada.ca/en/marine-transportation/marine-pollution-environmental-response/canadian-green-shipping-corridors-framework.

²⁴⁹ Canadian Green Shipping Corridors Framework, ibid.

²⁵⁰ In particular, the Energy Efficiency Design Index (EEDI), Ship Energy Efficiency Management Plan (SEEMF), and Energy Efficiency eXisting ship Index (EEXI). MARPOL (n 104), Annex VI regs 24-26.

²⁵¹ Decarbonizing Transportation in Canada: Report of the Standing Senate Committee on Energy, the Environment and Natural Resources (Senate, June 2017), at 31.

²⁵² Ibid at 34. Transport Canada, Shore Power Technology for Ports Program (4 September 2020), https://tc.canada.ca/en/programs/shore-power-technology-ports-program.

²⁵³ Ibid. The Senate report mentions Vancouver, Prince Rupert, Halifax, and Quebec City.

²⁵⁴ Bill C-33 (n 32) s 101 (1.1).

- (a) establishing a greenhouse gas emissions reduction target in respect of the operation of a port by a port authority;
- (b) respecting the contents of a five-year climate change plan;
- (c) respecting the contents of a five-year plan respecting climate change adaptation actions;
- (d) respecting the contents of the annual reports respecting the five-year plans;
- (e) respecting public participation in the development of five-year plans respecting climate change and climate change adaptation actions; and
- (f) imposing obligations on a port authority in respect of the climate change adaptation actions it must undertake. ²⁵⁵

The future regulations in this regard will significantly clarify what we should expect from ports. The federal government will still need to set the emissions reduction targets, presumably synched with Canada's declared NDC commitments, and sector specific share, as declared in a future NDC. Ports authorities will need to develop five-year plans for emissions and adaptation action based on public consultations. A concern for some Canadian ports is that long-term sea level rise and storm frequency could affect port operations. In the meantime, Bill C-33 already prescribes the content of the quinquennial plans and reports.²⁵⁶ Plans must be prepared within one year of the effectivity of the amendments and must contain a GHG reduction target, description of actions to achieve the target, information on material changes from the previous plan, and other prescribed information.²⁵⁷ Requirements for quinquennial adaptation plans must be prepared within two years of effectivity of the amendments and must contain a description of current and anticipated impacts of climate change on port operations and assets and actions taken, description of current and future commercial opportunities arising from climate change impacts and steps taken to take advantage of them, information on material changes since the previous plan, and any prescribed information. ²⁵⁸ Port authorities must publicize plans and report on an annual basis. The report must contain a port operations GHG emissions inventory, an update on the implementation of each plan, any prescribed information.²⁵⁹

Port authorities have a range of powers to enable efforts to decarbonize their activities and support shipping in its own decarbonization efforts. The earlier discussion of the powers of port authorities mentioned their powers concerning land-use planning, permitting building

²⁵⁵ Ibid.

²⁵⁶ Ibid s 116.

²⁵⁷ Ibid.

²⁵⁸ Ibid.

²⁵⁹ Ibid.

construction and transportation in the port environment. Bill C-33 tightens the requirements around publication and content of notifications of land-use plans.²⁶⁰

Despite the policy and regulatory guidance prior to Bill C-33, ports have taken the initiative to anticipate and effect decarbonization initiatives. Major commercial ports usually compete for international trade and business. However, this basic commercial goal has not prevented major Canadian and ports in trading partner countries from cooperating in committing to sustainability and meeting climate targets. These agreements are not required by law but are at the discretion of the ports concerned. In 2007 in the Pacific Northwest, four Canadian and US ports adopted the renewable Northwest Ports Clean Air Strategy to demonstrate commitment to improve air quality by reducing GHG and diesel particulate matter emissions in the Georgia Basin-Puget Sound air shed. They committed to phase out port emissions by 2050 to meet the Paris goal by pursuing three themes, namely: implementation of programmes of efficiency to phase out high-emitting equipment, fleet modernization, and use of lower-emissions fuels; infrastructure renewal to support zero-emissions technology; and collaborating to drive the development of zero-emissions technology.

Other Canadian ports have partnered with ports in partner trading countries to commit to green shipping corridors pursuant to the Clydebank Declaration. For example, the ports of Montreal and Antwerp recently entered into an agreement to establish a claimed first transatlantic green shipping corridor. Among other, the agreement anticipates the export of renewable fuels such as hydrogen and methanol produced by using Quebec's hydroelectric power. Similarly, the ports of Halifax and Hamburg, which service an important transatlantic trade, recently adopted a memorandum of understanding to cooperate in the development of port infrastructure for bunkering and the export of green hydrogen and derivatives in Halifax and related infrastructure in Hamburg. Laudable as these initiatives are, it is important to note that they do not set emissions reductions targets at this time.

²⁶⁰ Bill C-33 (n 32) s 118(1).

²⁶¹ Northwest Pacific Ports Clean Air Strategy (2020), https://www.portvancouver.com/environmental-protection-at-the-port-of-vancouver/northwest-ports-clean-air-strategy/.

²⁶² Ibid.

²⁶³ "First-ever North Atlantic Green Shipping Corridor prioritized by Montreal and Antwerp ports" (Chamber of Marine Commerce, 1 April 2022), https://www.marinedelivers.com/2022/04/first-ever-north-atlantic-green-shipping-corridor-prioritized-by-montreal-and-antwerp-ports/.

²⁶⁴ "Hamburg and Halifax ports unveil green corridor initiative" (Tradewinds, 4 October 2022), https://www.tradewindsnews.com/ports/hamburg-and-halifax-ports-unveil-green-corridor-initiative/2-1-1325891.

6.4 Prevention of marine and atmospheric pollution

Canada is party to MARPOL, the principal international convention for the prevention of vessel source pollution. MARPOL regulates pollution from ships through annexes on oil, hazardous noxious substances carried in bulk, hazardous noxious substances carried in packaged form, sewage, garbage, and air pollution and includes a scheme for port State inspections for visiting ships. Ports themselves do not undertake the inspections concerned, as this is a responsibility of Transport Canada acting as the national maritime administration. Rather, an integral part of the MARPOL pollution prevention system is the provision of port reception facilities for the various regulated wastes which ports are expected to provide. The MARPOL annexes require ships to discharge oily wastes, hazardous noxious substances, sewage, garbage, scrubber residue from exhaust gas cleaning systems (EGCS), and ozone depleting substances to port reception facilities. MARPOL has even higher discharge requirements for 'special areas' designated by the IMO because of their heightened sensitivity to shipping, but no special area designation applies to Canadian waters at this time.

State parties to MARPOL undertake to ensure the provision of Annex I adequate reception facilities for oily residues (including oily bilge waters) in oil loading terminals, repair ports, and all other ports in which tankers and other ships have oily residues to discharge without causing undue delay to ships".²⁶⁵ This obligation is accompanied by a requirement to consult with the IMO to circulate information on the reception facilities for communication to other IMO member States. In the case of Annex II, the undertaking to provide reception facilities concerns residues of and mixtures containing noxious liquid substances.²⁶⁶ Annex IV has similar requirements for reception facilities for sewage²⁶⁷ and Annex V with respect to garbage.²⁶⁸ With respect to Annex VI, the undertakings concern the provision of port reception facilities for ozone-depleting substances and equipment containing such substances when removed from ships²⁶⁹ and scrubber residues from ships employing EGCS to remove the high sulphur content in heavy fuel oil as an alternative compliance mechanism to using low sulphur content fuels.²⁷⁰

Another important MARPOL regulation pertinent to ports concerns bunker fuel for ships. For ships to meet the increasingly stringent IMO fuel use and emission control requirements, it is essential that ships have access to compliant bunker fuels in ports. In Canadian ports, the task

²⁶⁵ MARPOL (n 104) Annex I reg 38.

²⁶⁶ Ibid Annex II reg 18.

²⁶⁷ Ibid Annex IV reg 12.

²⁶⁸ Ibid Annex V reg 8.

²⁶⁹ Ibid Annex VI reg 17.

²⁷⁰ IMO EGCS Guidelines (n 106). The most recent version is 2015 Guidelines for Exhaust Gas Cleaning Systems, Resolution MEPC.259(68) (15 May 2015). Canada has not yet referentially incorporated the most recent version.

of bunkering services may be farmed out to subsidiaries or other private providers. MARPOL States Parties are required to ensure their domestic authorities maintain a register of local suppliers of fuel oil, require local suppliers to provide the bunker delivery note and sample as required by this regulation with certification that the fuel oil meets the Annex VI regulations 14 and 18, require local suppliers to retain a copy of the bunker delivery notes for inspection and verification, and take enforcement action in cases of non-compliance. MARPOL States Parties have an obligation to take all reasonable steps to promote the availability of compliant fuel oils and to inform the IMO of the availability of compliant fuels in their ports. In this respect, Canadian ports play an important role in ensuring Canada meets this international obligation.

Canada has implemented MARPOL through the CSA 2001 and the *Vessel Pollution and Dangerous Chemicals Regulations* (VPDCR).²⁷³ With respect to oily wastes, the regulations provide for the transfer operation of oil to a handling facility.²⁷⁴ The port handling facility is required to ensure safe transfer operations, for example by having two-way voice communication, ensuring adequate lighting at night and slow down or stop the transfer in case of leaks, equip the facility with a piping system that connects with the vessels standard discharge connection in compliance with Annex I, coordinate the transfer with the vessel, and has a duty (together with the vessel master) to take all necessary measures to rectify or minimize an emergency's effects.²⁷⁵

The CSA 2001 requires oil handling facilities to have an oil pollution emergency plan, approved by the Minister of Transport, to prevent and respond to discharges, ²⁷⁶ and to have a standing arrangement with a certified response organization and procedures, equipment, and resources for immediate use to respond to a discharge during loading or unloading of a vessel. ²⁷⁷ Proposed changes to the plan must be notified to the Minister. ²⁷⁸ Discharges and anticipated discharges must be reported as soon as feasible to Transport Canada. ²⁷⁹ The facility has a duty to take reasonable measures to implement the oil pollution incident prevention and response plan. ²⁸⁰ In instances where the facility may or has discharged oil, or the oil pollution prevention and response plan does not comply with regulations or does not have the requisite procedures

²⁷¹ MARPOL Annex VI reg 18.

²⁷² Ibid.

²⁷³ CSA 2001 (n 43) s 190(1)(e); VPDCR (n 105).

²⁷⁴ Ibid VPDCR ss 1 (definition of transfer operation), subdivision 5 (Transfer Operations).

²⁷⁵ Ibid ss 33, 34(1), 35(4), 36, 38(1)(b)-(d), (g), 28(2), 39.

²⁷⁶ CSA 2001 (n 43) ss 167.

²⁷⁷ Ibid s 168.

²⁷⁸ Ibid s 168.01.

²⁷⁹ VPDCR (n 105) s 133(1).

²⁸⁰ CSA 2001 (n 43) s 168(3).

and equipment, the Minister may direct the facility to take the necessary measures to repair, remedy, minimize or prevent pollution damage.²⁸¹

The transfer operation of noxious liquid substances has similar requirements for ships and handling facilities concerning two-way communications, lighting, and transfer conduits.²⁸² Further, port handling facilities must ensure they have sufficient capacity to receive Category Y noxious liquid substances, coordinate with the vessel, and duty to act in emergencies.²⁸³

As ports respond to the need to provide bunkering stations with alternative fuels, such as ammonia, the system for oil handling facilities and emergency response to spills will need to be adapted to cover such fuels. At this time, the mandate and certification of oil handling facilities is limited to oil.²⁸⁴ Transport Canada has guidelines for the handling and transportation of anhydrous ammonia as cargo, which is classified as a gas and dangerous good requiring particular safety measures.²⁸⁵ Canada is in the process of developing an approach to responding to spills of hazardous and noxious substances (HNS), which is expected to be different from oil spill response because unlike oil spills, HNS spill response depends on the substance's unique behaviour in water, different expertise and equipment may be needed depending on the substance, a response may require time to muster, the response might not include substance recovery, and the response partners might vary.²⁸⁶ In the case of the VFPA, Transport Canada operates the Canadian Transport Centre (CANUTEC) to provide assistance in emergencies involving dangerous goods.²⁸⁷The sewage regulations permit a ship to discharge treated waste at specified distances from land and at a moderate rate of discharge, but have tightened requirements when ships are not able to comply with the discharge requirements when located within six nautical miles of land and a reception facility is available. In such cases, the discharge must occur at a port reception facility. 288 The garbage rules are analogous, permitting certain discharges at sea, unless a marine mammal is visually observed within 0.5 nautical miles of the vessel, while reserving

²⁸¹ Ibid s 168(3).

²⁸² VPDCR (n 105) subdivision 8 (Transfer Operations), ss 73-75.

²⁸³ Ibid ss 62(1), 77(1)(b)-(d), (g), 77(2), 78.

²⁸⁴ CSA 2001 (n 43) ss 166(1), 169(1).

²⁸⁵ Transportation of Dangerous Goods Regulations, SOR/2001-286. D Finlayson, "Ammonia Safety Update: Ammonia Classification Change," in Transport Canada, Fall 2007, https://tc.canada.ca/en/dangerous-goods/newsletter/fall-2007#article7.

²⁸⁶ Transport Canada, *Canada's Preparedness and Response for Hazardous and Noxious Substances Released from Ships: Discussion Paper* (5 December 2018), https://tc.canada.ca/en/marine/canada-s-preparedness-response-hazardous-noxious-substances-released-ships-discussion-paper#definition.

²⁸⁷ Port of Vancouver, *Port Information Guide* (May 2018), 30-31, .
²⁸⁸ VPDCR (n 105) s 96(4).

other garbage discharges to port reception facilities.²⁸⁹ Plastics must be discharged at a reception facility.²⁹⁰ The VPDCR do not appear to expressly address the discharge of ozone depleting substances at port facilities, as required under MARPOL Annex VI. With respect to scrubber residues, Canada legislated the IMO 2009 Guidelines for Exhaust Gas Cleaning Systems which provide residues generated by the EGCS should be delivered ashore to adequate reception facilities and not be discharged at sea or incinerated on board.²⁹¹

Ships at reception facilities must obtain a certificate from the reception facility attesting to the type and amount of oily residues, noxious liquid substances, sewage, and type and amount of garbage discharged at the reception facility.²⁹² Curiously, the regulations do not seem to require similar certification for the discharge of ozone depleting substances and equipment and for scrubber residues.²⁹³ Further, while regulating the discharge of grey water, the regulations do not require its discharge at a port reception facility.²⁹⁴ However, new grey water (and sewage) treatment, management and discharge measures for cruise ships in Canadian waters include periodic reporting on compliance with the measures to Transport Canada.²⁹⁵

The NAECA designated under Annex VI is of relevance to Canadian ports and harbours in the Atlantic and Pacific, the Laurentian region, St Lawrence Seaway, and Great Lakes.²⁹⁶ The general rule concerning sulphur content (SOx) in bunker fuel prescribes that the sulphur content must not exceed 0.50% m/m.²⁹⁷ The standard for ships operating the NAECA is much higher at a maximum of 0.10% m/m and must be documented by the supplier.²⁹⁸ Similarly, a higher standard for emissions of nitrogen oxides (NOx) from diesel engines applies to ships operating in the NAECA.²⁹⁹ The air pollution protection also significantly reduces emission of particulate matter.

²⁸⁹ Ibid ss 101-102, 102(4) (re marine mammals).

²⁹⁰ Ibid s 106(6).

²⁹¹ Ibid s 111(4)(a); IMO EGCS Guidelines (n 106) para 10.1.4.

²⁹² VPDCR (n 105) ss 41(1), 80(1) and 107(1).

²⁹³ The master is still required to record the transfer of ozone depleting substances to a reception facility in the Ozone Depleting Substances Record Book on board. Ibid s 124.1(2)(d). Neither the 2009 IMO ECGS Guidelines not the VPDCR have anything to say on certification of receipt of scrubber residue discharged at a port reception facility. ²⁹⁴ Ibid s 131.1.

²⁹⁵ Transport Canada, "New Environmental Measures for Cruise Ships in Waters under Canadian Jurisdiction – 2022 Season", Ship Safety Bulletin No. 10/2022 (12 April 2022; modified August 18, 2022), .

²⁹⁶ MARPOL (n 104) Annex VI, reg 13.6.1 and app VII.

²⁹⁷ Ibid Annex VI reg 14(1).

²⁹⁸ Ibid Annex VI reg 14(4) and (5).

²⁹⁹ Ibid Annex VI reg 13.

6.5 Protection of marine biological diversity

In addition to pollution prevention law, legislation of general application concerning the protection and conservation of marine biological diversity applies to the activities of ports and harbours. With respect to their lands and waters, port authorities are responsible to: provide reception facilities for wastes from ships; prevent pollution from activities within their control; comply with the requirements of marine protected areas overlapping waters within their jurisdiction; provide for species-specific protection; and use their powers to mitigate the impacts of navigation on marine species in waters within their jurisdiction.

The provision of reception facilities discussed above enables ports not only to fulfill Canada's international obligations under the MARPOL annexes, but also to reduce a significant amount of waste that poses risks to species and their habitats. For example, the receipt of oily wastes in port facilities protects migratory seabirds and the receipt of garbage that includes plastics helps reduce the amount of plastic ingested by species such as turtles and marine mammals. As seen earlier, vessels visiting Canadian ports are required to discharge their wastes in port and port handling facilities have counterpart duties to receive and handle received wastes properly.

Port and harbour authorities must comply with federal pollution regulation designed to protect species and their habitats. Under the *Fisheries Act*, port and harbour authorities must not discharge any deleterious substances in waters frequented by fish or any other place where such substances may enter such waters, ³⁰⁰ unless in doing so they comply with other regulations, such as the VPDCR. ³⁰¹ They have similar duties under the MBCA not to deposit or permit the deposit of substances (or in combination with other substances) that are harmful to migratory birds or a deposit in waters or areas frequented by migratory birds, or in places where such substances may enter such waters or areas. ³⁰² The CEPA further prohibits the deposit of prohibited substances in marine areas, unless by permit ³⁰³ issued and gazzetted by the ECCC Minister. ³⁰⁴ This is pertinent for ports and harbours because 'disposal' includes the disposal of dredged material. ³⁰⁵

Further habitat protection under the *Fisheries Act* relates to works and undertakings. The Act provides that no person shall carry on any work, undertaking or activity, other than fishing,

³⁰⁰ Fisheries Act (n 72) s 36(3).

 $^{^{301}}$ Ibid s 36(4)(a).

³⁰² MBCA (n 64) s 5.

³⁰³ CEPA (n 70) s 125(1).

³⁰⁴ Ibid s **127**.

³⁰⁵ Ibid s 122(1).

that results in the death of fish, without a permit from the Minister of Fisheries and Oceans.³⁰⁶ Similarly, there is a prohibition for the carrying on work, undertaking or activity that results in the harmful alteration, disruption, or destruction of fish habitat, unless with Ministerial authorization.³⁰⁷ The requirements and procedures for permitting are set out in the *Authorizations Concerning Fish and Fish Habitat Protection Regulations*.³⁰⁸

Where marine waters under their jurisdiction overlap with protected areas, ports and harbour activities are expected to comply with regulations under the Oceans Act and its regulations, marine conservation areas under the NMCA, and marine wildlife areas under the Canada Wildlife Act. The Oceans Act provides a framework for the designation of marine protected areas and regulations under it govern specific areas. ³⁰⁹ Several marine protected areas are designated in the Atlantic, Arctic, and Pacific oceans. Each protected area is regulated according to its unique context and circumstances, and usually accompanied by a general prohibition of any activity that disturbs, damages, destroys or removes marine living organisms or its habitat.³¹⁰ Some fishing activity may be permitted in some cases and navigation rights are preserved, although there could be restrictions such as no-anchor areas and waste discharge. Protected areas and reserves may be designated under the NMCA, which are subject to several prohibitions.³¹¹ These include restrictions on the disposal of interest in public lands and that no person shall use or occupy those lands,³¹² explore or exploit specified minerals,³¹³ or dispose of any substance without permit. 314 Marine protected areas may be designated by the Governor in Council under the auspices of the Canada Wildlife Act and the ECCC Minister may provide advice relating to them.315 Regulations under the Act establish a long list of prohibitions that include, among other, any industrial activity, disturbance or removal of any soil, sand, gravel or other material and dumping or depositing of wastes or substances that could alter the quality of the environment.316

Ports and harbours are also expected to observe additional habitat protections in their waters prescribed under other legislation. Regulations under the MBCA also provide for the establishment of migratory bird sanctuaries, which could theoretically be in port or harbour

³⁰⁶ Fisheries Act (n 72) 34.4.

³⁰⁷ Ibid s 35.

³⁰⁸ Authorizations Concerning Fish and Fish Habitat Protection Regulations, SOR/2019-286.

³⁰⁹ *Oceans Act* (n 68) s 35 et seg.

³¹⁰ See, for example, Banc-des-Américains Marine Protected Area Regulations, SOR/2019-50.

³¹¹ Canada National Marine Conservation Areas Act (n 66).

³¹² Ibid s 12.

³¹³ Ibid s 13.

³¹⁴ Ibid s 14.

³¹⁵ Canada Wildlife Act (n 63) s 4.

³¹⁶ Wildlife Area Regulations, CRC c 1609.

areas, however the specified regulatory prohibitions do not appear to include activities that port and harbours would normally undertake.³¹⁷ The *Fisheries Act* similarly provides for the designation of ecologically significant areas by the Governor in Council on the recommendation of the Minister of Fisheries and Oceans with the effect that works, undertakings or activities that affect such areas are screened and permitted by the Minister.³¹⁸ SARA provides protections to numerous marine species and enables the competent Minister, on the basis of consultations with the Canadian Endangered Species Conservation Council, to establish codes of practice, national standards or guidelines with respect to the protection of critical habitat.³¹⁹ The critical habitats of listed endangered or threatened aquatic species on federal lands or migratory birds conserved under the MBCA are protected.³²⁰ Species subject to recovery plans are legally protected and critical habitats of numerous marine species are protected by dedicated regulations or orders. An example is the Southern Resident Killer Whale (SRKW), for which the ECCC and Fisheries and Oceans Ministers prepared a recovery plan,³²¹ and whose habitat is partly in the waters under the jurisdiction of VFPA.

A port authority's powers include promotion of environmental protection in port waters. This requires monitoring of ships in or entering port waters, establishing vessel practices and procedures, requiring ships to have the capacity to use specified radio frequencies, and establishing traffic control zones.³²² Port vessel traffic management powers include requiring notices of arrival, requesting certain information from vessels and to directing port entry, departure, anchoring, berthing and movement, to proceed at a certain speed or to use the assistance of towage where appropriate and to avoid certain areas. Typically, port areas tend to be subject to mandatory pilotage regulated by the regional pilotage authorities established under the *Pilotage Act* and regulations.³²³ Pilots must have knowledge of the harbour and other marine regulations that apply in the pilotage area in which they are licensed.³²⁴

Port authorities have the discretion to use vessel traffic management powers to help prevent or mitigate the impacts of navigating vessels on marine species in port and harbour waters under their jurisdiction, including in areas other than MPAs. Among the reasonable grounds for requiring a vessel to proceed to or stay at a particular location, the CMA includes the

³¹⁷ Migratory Bird Sanctuary Regulations, CRC c 1036, s 3.

³¹⁸ Fisheries Act (n 72) s 35.1.

³¹⁹ SARA (n 65) s 56.

³²⁰ Ibid s 58.

³²¹ Critical Habitat of the Killer Whale (Orcinus orca) Northeast Pacific Southern Resident Population Order, SOR/2018-278.

³²² CMA (n 1) s 56(1).

³²³ *Pilotage Act*, RSC 1985, c P-14.

³²⁴ General Pilotage Regulations, SOR/2000-132, ss 22.21, 22.30.

proximity of animals whose well-being could be endangered by the ship, and for which vessel compliance is required.³²⁵ Ports may use this power to fulfill their duties under conservation legislation, such as under SARA. Where the conservation measures extend over a large area, a cooperative approach involving port authorities, other federal authorities and stakeholders are called for. For example, the critical habitat of the SRKW overlaps with areas of jurisdiction of the VFPA and in 2014 the VFPA initiated the Enhancing Cetacean Habitat and Observation (ECHO) Program to bring together stakeholders to better understand and manage the risks posed by large commercial vessels to whales. In 2019, this initiative led to the Species at Risk Act section 11 Conservation Agreement to Support the Recovery of the SRKW with the participation of federal authorities (including the VFPA through the Minister of Transport) and major industry associations.³²⁶ The agreement aims "to reduce the acoustic and physical disturbance to SRKW by large commercial vessels in Pacific Canadian waters" through voluntary efforts and threat reduction measures. The VFPA commitments consist of continuing to manage the ECHO Program (including providing an ongoing framework for engagement, collaborative development and implementation of workplans, advancement of selected research projects, coordinate to develop appropriate SRKW threat reduction targets, coordinate to develop, implement and monitor measures to reduce threats, and maintain education outreach) and to work with Transport Canada to develop a strategy "to encourage underwater noise reduction incentives in other ports in Canada and internationally". 327 The initiatives pursued for specified periods have included the Haro Strait and Boundary Pass voluntary ship slowdown, the Strait of Juan de Fuca voluntary inshore lateral displacement, and the Swiftsure Bank voluntary ship slowdown trial. 328

7. DISCUSSION

Ports and harbours are regulated by federal powers over navigation and shipping and seacoast and fisheries, producing a well-developed legal framework that reflects the fundamental roles they play in the Canadian economy and society. Federal law governs much of the legal

³²⁵ CMA (n 1) s 58(2)-(3).

³²⁶ The parties to the agreement are: the Minister of Fisheries, Oceans and the Canadian Coast Guard (for DFO); Minister of Transport (for Transport Canada, VFPA and Pacific Pilotage Authority); Chamber of Shipping of British Columbia; Shipping Federation of Canada ("SFC"); Cruise Lines International Association; Council of Marine Carriers; and the International Ship Owners Alliance of Canada. *Species at Risk Act* section 11 conservation agreement to support the recovery of the Southern Resident Killer Whale (10 May 2019), https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/conservation-agreements/southern-resident-killer-whale-2019.html.

³²⁷ Ibid art 5.2.1

³²⁸ ECHO Program Projects and Initiatives (Port of Vancouver), https://www.portvancouver.com/environmental-protection-at-the-port-of-vancouver/maintaining-healthy-ecosystems-throughout-our-jurisdiction/echo-program/projects/>.

framework, but it is supplemented by other levels when constitutionally allocated powers overlap with the federal power over navigation and shipping. Given the plethora of instruments involved, one sympathises with the reader if the framework comes across as unnecessarily complex and fragmented, providing a challenge to fully grasp the scope and depth of the law of ports in Canada. While the legal framework has developed piecemeal over time, legislative efforts have been constrained by constitutional considerations and mandates spread across multiple federal authorities. Thankfully, the CMA as the central instrument in this legal framework is a dynamic instrument that continues to evolve through successive reviews.

Hence the tiered system reflecting the needs of the major commercial ports of the national port system that are gateways for imports and exports and managed by commercially nimble port authorities, public ports that play important economic roles in regional economies and domestic trade run by port authorities, and small craft harbours to respond to the needs of the country's extensive fishing industry, coastal communities, and recreational boating, and run by harbour authorities. The needs of the major ports are reviewed periodically because ports need to be continuously responsive to domestic and international economic and social change. As the challenges for supply chains during and following the Covid-19 pandemic demonstrated, without this responsiveness, Canadian ports might not be as nimble and competitive as they need to be, with consequences for import and export trades.

In understanding the governance of ports and harbours in Canada, while it is important to understand the national framework, it is equally important to understand the sufficiency of what each port and harbour is doing with reference to the particular Letters Patent or other legal arrangement for every port or harbour management or divestiture. Ports and harbours in Canada are endowed with different governance systems reflecting various extents of power and ministerial oversight. Placed at the top tier, port authorities are substantially autonomous entities and have increasingly seen their powers expanded to enable them to be as commercially competitive as possible while still watching out for the Crown interests which they represent as agents in some respects. Public ports and small craft harbours have significantly less autonomy and power, depending to a great extent on ministerial oversight and powers delegated to provinces, municipalities, or not-for-profit organizations. Differently, port authorities are run by boards of directors with substantial commercial and regulatory power to ensure commercial viability, safety, and environment protection in port operations.

Ports run by port authorities, public ports and small crafts are all subject to the same marine environmental law. Their contributions to environmental protection in large part depend on their compliance with the extensive federal law on the prevention of marine pollution and the protection and conservation of marine biological diversity. However, because of their autonomy,

port authorities have a special role to play in ensuring sustainable development of port lands and waters based on impact assessment and due consideration and pursuit of Canada's climate change policies and international obligations. In this regard, it is interesting to observe that to date port authorities' abilities to regulate activities with environmental and climate impacts appear to stem largely and indirectly from their powers concerning land-use planning and contracting commercial operations. They can regulate activities on port lands, such as construction and energy use and efficiency standards, in a manner that helps mitigate carbon emissions. In comparison, port authorities' administration of existing federal law and their ability to regulate shipping is limited to approving mooring and anchoring, directing the movement of ships in waters under their jurisdiction as part of their vessel traffic management powers, and establishing conditions for the provision of services to ships, for example cold ironing, and receipt of wastes. They have corollary enforcement powers, such as taking possession of and removing ships or ordering tugs to move and moor ships to places designated by the port authority.

Port authorities cannot regulate shipping standards. The regulation of construction, design, equipment, crewing, and vessel operations are matters of navigation and shipping for which the Minister of Transport is largely responsible. Hence, port authorities need to work closely with Transport Canada on matters that require regulation of shipping that concerns standard-setting and the department will lead the regulatory initiative needed. Such initiatives include the protection of species from the impacts of shipping and will be announced in Transport Canada's forward regulatory plan, as is currently the case for Marine Environmental Protection Regulations for the benefit of the SRKW.³²⁹ After all, the Minister of Transport is the authority responsible for overseeing the CMA and in addition to consulting with DFO and port authorities, the department will undertake public consultations including through the Canadian Marine Advisory Council.

That ports, with their complex industrial activities and services, should be major players in climate change mitigation has logically thrown a spotlight on what else they could do in terms of mitigation, given the limits of their powers. The gradual improvements to the CMA have enhanced port authorities' abilities to respond to commercial exigencies, but perhaps not sufficiently in responding to increasingly more complex environmental challenges. Port authorities' environmental regulatory power has tended to be limited and environmental outcomes have tended to be produced in response to federal regulation and indirectly through port policies to pursue soft initiatives such as green corridors and inter-port cooperation. This will likely change because of the latest modernization review leading to strengthened powers for

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Transport Canada, Marine initiatives planned for April 2022–April 2024 (24 November 2022), https://tc.canada.ca/en/corporate-services/acts-regulations/forward-regulatory-plan/marine-initiatives-planned#marine-environmental.

climate change mitigation efforts. While before Bill C-33 port authorities could take voluntary initiatives, the new legislation will lead to establishing specific emission reduction targets to be pursued in a methodical manner though quinquennial plans as well as pursuing climate change adaptation through parallel plans.

A critical environmental role played by all ports and harbours, but most especially ports run by port authorities which service international shipping, is the ability to prevent and reduce marine pollution. They help Canada perform its international obligations to provide reception facilities to domestic and international shipping in its ports for wastes generated by ships. They also play a vital role in helping the reduction of air pollution by providing bunkering services for low-sulphur fuels. Already, several of the major ports that have developed cold ironing facilities are able to connect certain classes of ships (cruise ships in particular) to shore power, thereby reducing GHG and other emissions in the port environment and ensuring cleaner air. Eventually, ports will also greatly assist the decarbonization of shipping by developing bunkering infrastructure to provide renewable fuels, such as ammonia and hydrogen.

The soft initiatives of ports are no less worthy or effective than the exercise of regulatory power. Green corridors, green shipping, and marine conservation efforts such as ECHO are cases in point. While the public tends to think of law as a system of prescriptions to induce compliance in the public interest, non-regulatory initiatives can be effective at pursuing environmental and climate goals, especially when ports' regulatory power has limits.

Finally, sustainability plays an important role in port activities, most especially in the case of federal ports, largely because of legislative expectations in the CMA and IAA, but also because port authorities have embraced the ethic of sustainability. It would be interesting to ask how port authorities are achieving sustainability in fact and what are the constraining and facilitating factors. To answer this question, a more in-depth and interdisciplinary comparative study of Canadian ports would be necessary, as Letters Patent are port-specific despite the common legal framework.

8. CONCLUSION

This report has examined and explained the legal and policy framework of ports and harbours in Canada with a focus on climate change mitigation and the protection and preservation of the marine environment. What emerged is an extensive and complex legal framework that reflects Canada's role as a major trading and shipper nation and its pursuit of environmental obligations in its own unique context. The legal framework balances diverse interests. International trade is

serviced by the National Ports System, domestic regional trade is supported by numerous ports of regional significance, and coastal communities' ocean-dependant resource and non-resource economies relying on harbours as platforms. As the big players enjoying substantial autonomy, port authorities play a central role in balancing the needs of commerce, trade, environment, and social benefits. They are maximising their powers to address environmental concerns, most especially with respect to the pursuit of sustainability through impact assessment, pollution prevention and mitigating the impacts of port activities on habitats and species. Their abilities to better respond to climate change mitigation and adaptation will be strengthened with current new initiatives for legal development.

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