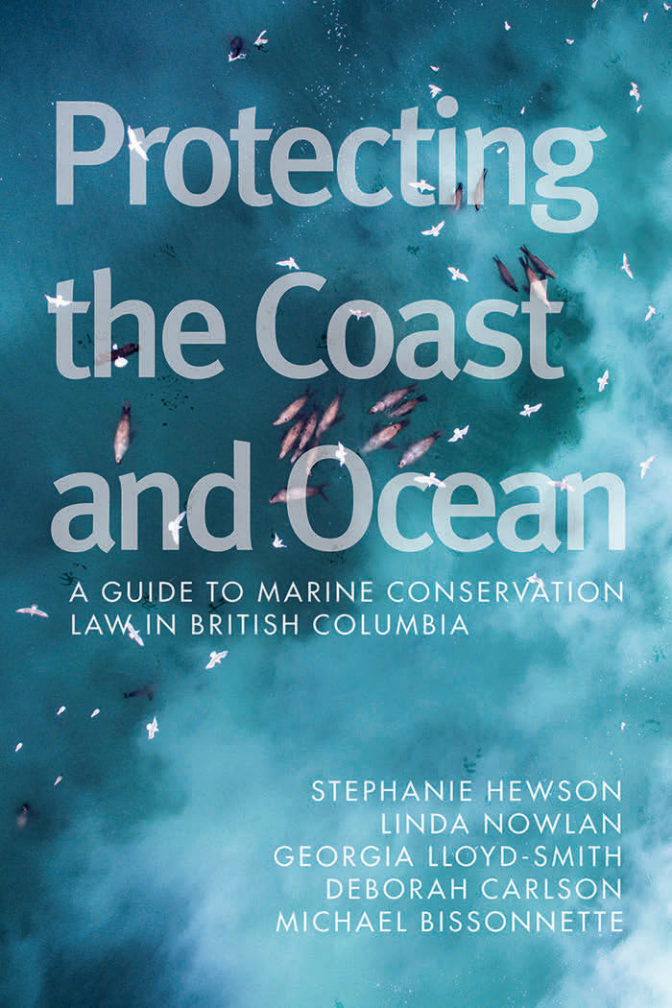
Protecting the Coast and Ocean
A GUIDE TO MARINE CONSERVATION LAW IN BRITISH COLUMBIA
STEPHANIE HEWSON
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Stephanie Hewson, Linda Nowlan,
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UBCPress · Vancouver · Toronto

Library and Archives Canada Cataloguing in Publication

Title: Protecting the coast and ocean : a guide to marine conservation law in British Columbia / Stephanie Hewson, Linda Nowlan, Georgia Lloyd-Smith, Deborah Carlson, and Michael Bissonnette.
Names: Hewson, Stephanie, author. | Nowlan, Linda, author. | Lloyd-Smith, Georgia, author. | Carlson, Deborah, author.
Description: Includes bibliographical references and index.
Identifiers: Canadiana (print) 20230154042 | Canadiana (ebook) 20230154336 | ISBN 9780774865494 (hardcover) | ISBN 9780774865517 (PDF) | ISBN 9780774865524 (EPUB)
Subjects: LCSH: Fishery law and legislation—British Columbia. | LCSH: Marine resources conservation—Law and legislation—British Columbia.
Classification: LCC KEB347 .H49 2023 | DDC 343.71107/692—dc23

UBC Press gratefully acknowledges the financial support for our publishing program of the Government of Canada, the Canada Council for the Arts, and the British Columbia Arts Council.

This book has been published with the funding support of the Sitka Foundation and the Gordon and Betty Moore Foundation.

Set in Segoe and Warnock by Artegraphica Design Co.
Copy editor: Frank Chow
Proofreader: Kristy Lynn Hankewitz
Indexer: Emily LeGrand
Cover designer: George Kirkpatrick

UBC Press
The University of British Columbia
2029 West Mall
Vancouver, BC V6T 1Z2
www.ubcpress.ca

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ABBREVIATIONS

AMB	Archipelago Management Board
AOI	Area of interest
APM	Associated Protective Measures
ATBA	Area to Be Avoided
BIAP	Burrard Inlet Action Plan
BIEAP	Burrard Inlet Environment Action Program
CBD	*Convention on Biological Diversity*
CBT	Clayoquot Biosphere Trust
CEEMP	Cowichan Estuary Environmental Management Plan
CESCC	Canadian Endangered Species Conservation Council
CESD	Commissioner of the Environment and Sustainable Development
CHN	Council of the Haida Nation
CMA	Collaborative management agreement
CMS	*Convention on the Conservation of Migratory Species of Wild Animals*
CNMCA Act	*Canada National Marine Conservation Areas Act*
COLREGs	*Convention on the International Regulations for Preventing Collisions at Sea, 1972*

COP	Conference of the Parties
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CPAWS	Canada Parks and Wilderness Society
CREMP	Campbell River Estuary Management Plan
CWS	Canadian Wildlife Service
DFO	Fisheries and Oceans Canada
DPA	Development Permit Area
EBM	Ecosystem-based management
EBSA	Ecologically and Biologically Significant Area
ECCC	Environment and Climate Change Canada
EEZ	Exclusive economic zone
ESA	Ecologically significant area
FAO	United Nations Food and Agriculture Organization
FPIC	"Free, prior, and informed consent"
FREMP	Fraser River Estuary Management Plan
FRPA	*Forest and Range Practices Act*
GMZ	General Management Zone
HCA	*Heritage Conservation Act*
IBA	Important Bird and Biodiversity Area
IBP	International Biological Program
ICCA	Indigenous and Community Conserved Area
ICE	Indigenous Circle of Experts
IMMA	Important Marine Mammal Area
IMO	International Maritime Organization
IPA	Indigenous Protected Area
IPCA	Indigenous Protected and Conserved Area
IUCN	International Union for Conservation of Nature
IWC	International Whaling Commission
IWMS	Identified Wildlife Management Strategy
KBA	Key Biodiversity Area
LOMA	Large Ocean Management Area
MAB	Man and the Biosphere Programme

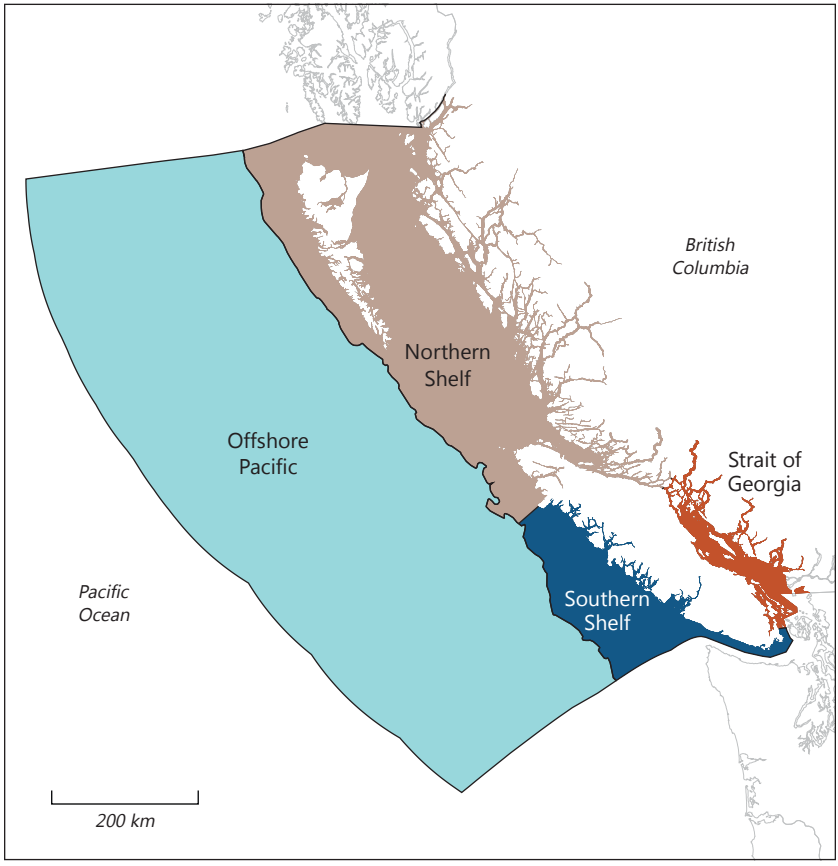
MaPP	Marine Plan Partnership
MARPOL	*International Convention for the Prevention of Pollution from Ships*
MBS	Migratory Bird Sanctuary
mNWA	Marine National Wildlife Area
MOU	Memorandum of understanding
MPA	Marine protected area
MSP	Marine spatial planning
NAPTEP	Natural Area Protection Tax Exemption Program
NAWMP	North American Waterfowl Management Plan
NCC	Nature Conservancy of Canada
NEMC	Nanaimo Estuary Management Committee
NGO	Non-governmental organization
NMCA	National Marine Conservation Area
NMCAR	National Marine Conservation Area Reserve
NRKW	Northern Resident killer whale
NSB	Northern Shelf Bioregion
NWA	National Wildlife Area
OCP	Official community plan
OECM	Other effective area-based conservation measure
PECP	Pacific Estuary Conservation Program
PMZ	Protection Management Zone
PNCIMA	Pacific North Coast Integrated Management Area
PSSA	Particularly Sensitive Sea Area
RCA	Rockfish Conservation Area
RFMO	Regional fisheries management organization
RGS	Regional growth strategy
SARA	*Species at Risk Act*
SDG	Sustainable Development Goal
SEMP	Squamish Estuary Management Plan
SMZ	Special Management Zone
SOLAS	*International Convention for the Safety of Life at Sea, 1974*
SRKW	Southern Resident killer whale
TSS	Traffic Separation Scheme

TWN	Tsleil-Waututh Nation
UN	United Nations
UNCLOS	*United Nations Convention on the Law of the Sea*
UNDRIP	*United Nations Declaration on the Rights of Indigenous Peoples*
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFSA	*United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks* (*United Nations Fish Stocks Agreement*)
VME	Vulnerable Marine Ecosystem
WCPA	World Commission on Protected Areas
WHA	Wildlife Habitat Area
WHC	*World Heritage Convention*
WMA	Wildlife Management Area

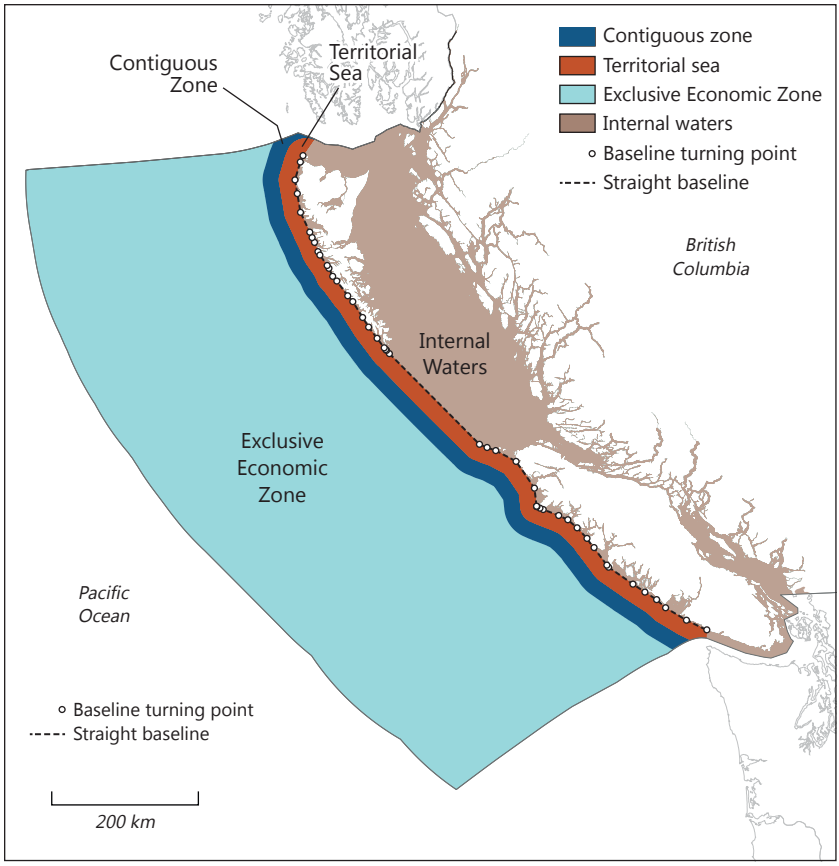
ACKNOWLEDGMENTS

This book has benefited from the expertise of many colleagues who shared their ideas and reviewed drafts of the text. It could not have been completed without them. Thank you to Estella White/ḥiʼnačačišt of West Coast Environmental Law; Stephen Ban of the British Columbia Ministry of Environment and Climate Change Strategy; Ross Jameson of the Canadian Parks and Wilderness Society; Molly Clarkson of the Council of the Haida Nation; Sarah McJannet of the District of Squamish; Elizabeth Edmondson, Chloe Ready, Lisa Setterington, Danielle Scriven, Jazz Amyot, Andre Poliquin, Steven Zhang, Anne Phelps, Julie Deault, and Jessica Young of Fisheries and Oceans Canada; Ruth Simons of the Howe Sound Biosphere Region Initiative; Brad Smith of the Islands Trust; Kris Statnyk of Mandell Pinder LLP; Sandra Bicego of Pacific Blue Consulting; Luanne Roth of T. Buck Suzuki Environmental Foundation; Terri-Lynn Williams-Davidson, K.C., of White Raven Law; and Hussein Alidina of World Wildlife Fund Canada (WWF-Canada). Our thanks to Christie McLeod, Maryann Watson, Julia Roe, Estella White, Alex Kirby, and the many West Coast Environmental Law student interns and volunteers who contributed to research on marine protection law. The text reflects the analysis and understanding of the authors and does not necessarily reflect the views of the reviewers.

MAPS



West Coast marine bioregions (Cartography by Eric Leinberger)



West Coast maritime zones (Cartography by Eric Leinberger)

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INTRODUCTION

MAXINE MATILPI, A MEMBER of the Kwakiutl and Ma'amtigila Nations and our colleague at West Coast Environmental Law, spent much time in the 1960s in a small Kwakiutl village near Port Hardy called Tsakis. She remembers "dried salmon stacked like cord wood behind my grandparents' stove ... our grannies and aunties sitting on lawn chairs beside the fires as everyone was jarring fish. Everyone in the village busy and happy, and working together, kids running around with cedar BBQ sticks caked with caramelized salmon juices."[1] Her grandmother told stories of a time when there was enough salmon for three meals a day, every day.[2]

One Haida elder, recalling the herring runs of his youth, said, "I know that there were millions of tons of fish, because when they started moving through Burnaby Narrows it sounded like a big rainfall or something, at night time going through the Narrows. And then the sealions and the killerwhales right with them too. Hear the sealions roaring all night going through the Narrows after the herring."[3] The largest herring in these runs were as big as pink salmon today.[4]

The richness of life on the Pacific coast of what is now called British Columbia was astonishing to newcomers from Europe in the 1800s. A Scottish scientist visiting Observatory Inlet in the 1820s saw "such myriads of salmon, that a stone could not have reached the bottom without touching several individuals – their abundance surpassing imagination to conceive."[5] A British sailor travelling up the Northwest Coast saw "the vast

Pacific Ocean, completely alive with whales and porpoises."[6] The abundance of marine life was "extraordinary and unless actually seen would appear incredible."[7]

These accounts are hard to square with now-weekly reports of dying killer whales or another devastatingly small salmon run. Compounding threats of climate change, pollution, marine plastics, and overfishing seem overwhelming. The World Wildlife Fund estimates that between 1970 and 2012, marine wildlife populations declined in abundance by 49 percent, and many species have declined further since.[8]

Yet, despite the serious crises facing the Pacific coast, it is still possible to experience the splendour and richness of the coast. A day spent at the beach in Vancouver reveals crabs, mussels, and seals. Herring spawn in Baynes Sound brings thousands of eagles, sea lions, and whales to feed every year. Killer whales are returning to Howe Sound, and humpback populations have recovered dramatically.[9] Much of this recovery has been possible because of past conservation and stewardship initiatives.

We have the tools we need to continue this progress, and to halt and even reverse the ocean's decline. This volume catalogues the legal tools that exist, at every order of government, to protect coastal and marine ecosystems. When used properly, these tools have the potential to reverse species extinction and increase ecosystem resilience in the face of future uncertainties like climate change.

The primary purpose of this book is to put spatial protection tools in the hands of the public, and particularly the Indigenous nations, marine scientists, environmental organizers, community members, civil servants, and political leaders who can effect change. Its secondary purpose is to inspire action: the many examples of marine conservation contained within are records of what has been accomplished through thoughtful and committed work.

This introductory chapter proceeds with an overview of the history of marine protected areas (MPAs), and the criteria they should meet for effective governance and conservation. The next chapter, "Jurisdiction," provides a breakdown of the different orders of governments involved in marine governance in British Columbia, and the legal frameworks that guide their rights and responsibilities. The next five chapters focus on each order of government – international, federal, provincial, Indigenous, and local – providing an overview of the legal tools available to spatially protect marine areas, along with an analysis of the strengths and weaknesses of each tool and examples of their use. The final substantive chapter, "Interjurisdictional

Legal Coordination," looks at examples of interjurisdictional agreements and efforts that have been developed to protect the coast and ocean in British Columbia.

HISTORY OF MARINE PROTECTED AREAS

The idea of protecting marine areas is not new. For millennia, coastal Indigenous nations have set aside marine areas for special management in order to protect ocean life and sources of food.[10] Many Indigenous marine management practices include spatial protection measures such as seasonal fisheries closures and biodiversity enhancement strategies.[11] Indigenous nations in British Columbia have stories about the disappearance of fish populations that are killed or harvested in unnecessary numbers, and the actions taken to support their return.[12]

In spite of this, the dominant narrative in Western societies has been of an infinite ocean, with a virtually endless supply of food. In 1883, one of the most influential fisheries scientists of the time, Thomas Henry Huxley, declared, "I believe, then, that the cod fishery, the herring fishery, the pilchard fishery, the mackerel fishery, and probably all the great sea fisheries, are inexhaustible; that is to say, that nothing we do seriously affects the number of the fish."[13]

Even at the time of Huxley's statement, this view was challenged by fishers experiencing first-hand the limits to fishing resources. In the face of government inaction, English commercial fishers voluntarily closed certain grounds in the North Sea from 1890 to 1892.[14] As evidence of damaged marine ecosystems and depleted fisheries continued to grow, protected areas were established in estuaries and intertidal habitats.[15] Early examples include the Alaskan islands of St. Paul and St. George, protected in 1869 for northern fur seals, and the Royal National Park in New South Wales, Australia, designated in 1879 to protect seagrass beds, mangroves, and important fish and invertebrate nursery areas.[16]

Marine conservation efforts became more widespread in the years following the Second World War. Many more individuals became acquainted with the underwater world through popular sports like scuba diving and spearfishing, while cultural influences like Rachel Carson's *The Sea Around Us* and Jacques-Yves Cousteau's underwater films brought attention to undersea life.[17] The impacts of human life were becoming more obvious too, as charismatic species like whales and sea turtles faced a growing risk of extinction.

The idea to use large-scale closures to protect marine life is also attributed to this era. The Second World War created an accidental large-scale protected area when the North Sea became too dangerous to fish. Fishing activity, which had steadily increased in the prewar decades,[18] dropped off suddenly and dramatically, in some cases by as much as 97 percent.[19] The subsequent rebound in fish stocks bolstered the case for increased fisheries management and protected areas in the ocean.

Marine parks as a concept finally entered the international environmental sphere in 1962, at the International Union for Conservation of Nature (IUCN)'s First World Conference on National Parks in Seattle, Washington. Conversation at the conference would have focused entirely on terrestrial parks, which the IUCN had recently identified as a core conservation tool, if not for a paper submitted by American scientist G. Carleton Ray, describing the urgent need for marine conservation. Ray wrote that "the sea is not a vast, untouched storehouse of resources and food in every sense, as we so often hear preached ... The sea has been harvested intensively for centuries and it, like the land, has its extinct and decimated species."[20]

Ray proposed that the boundaries of all coastal parks be immediately extended to at least three nautical miles over the surface and water column of the ocean, and that countries begin creating independent marine parks. In doing so, "every effort should be made to protect all life [within marine parks] completely. The philosophy should be that governing terrestrial parks, and we do not shoot birds and game or even mice in land parks."[21] His paper led to the formal recommendation by the First World Conference for "the Government of all those countries having marine frontiers, and other appropriate agencies, to examine as a matter of urgency the possibility of creating marine parks or reserves to defend underwater areas of special significance from all forms of human interference."[22]

Marine Protected Areas in Canada

While Indigenous nations have used spatial protection measures on marine areas for millennia, the concept is more recent for Crown governments in Canada. An early federal government idea, in 1970, was to establish the Vancouver Island Inland Sea (now referred to as the Salish Sea) as a marine management unit, with several national marine parks identified within the area.[23] Ultimately, none of these efforts led to the creation of marine parks, perhaps because of interjurisdictional complexities or lack of political will.[24]

Between 1969 and 1972, the federal government designated four national parks that included the adjacent marine environment within their

boundaries: Kouchibouguac in New Brunswick in 1969, Pacific Rim on Vancouver Island in 1970, Forillon in Quebec in 1970, and Auyuittuq in the Arctic in 1972.[25] Although commercial exploitation was prohibited in all national parks, commercial fishing continued within the marine areas of each of these parks, sometimes as a result of direct action from the commercial fishing sector, which in one instance occupied the local park office until its ability to fish in the waters of Kouchibouguac were reinstated.[26] Differing standards of protection for parks on land versus parks in the ocean continue to this day.

The federal government's haphazard approach to marine parks continued through the 1980s and 1990s, with Canada producing several drafts of a policy on national marine parks between 1981 and 1983, and its first Oceans Strategy in 1987.[27] In 1997, Canada finally passed the federal *Oceans Act,* the first law to enable the creation of marine protected areas. The *Canada National Marine Conservation Areas Act,* overseen by Parks Canada, followed in 2002.

British Columbia undertook its own investigations into marine parks. British Columbia and the federal National Parks Branch (as Parks Canada was known then) made a joint effort to resurrect the concept of marine parks in the late 1970s, and proposed a new marine park around Race Rocks, near Victoria. The proposal did not go ahead.[28] British Columbia completed a study of underwater parks in 1980, and designated its first provincial park with a significant marine component at Porteau Cove.[29]

During this time, Indigenous nations were clear leaders in recognizing the need for marine conservation, including the Haida Nation, which designated two Haida Heritage Sites protecting ocean areas in 1985 and 1997. However, the experience of Indigenous peoples with parks designated under Crown law was more challenging. Crown land–use designations, including park designations, can infringe Indigenous rights and title by purporting to limit what a nation may do in its territory. The history of park creation in Canada has involved significant rights violations, including loss of access to traditional territories and restrictions on important cultural, social, economic, and spiritual uses of designated parkland. In the worst cases, Indigenous communities were forcibly relocated from parklands; for example, the Mowachaht and Muchalaht First Nations of the Nuu-chah-nulth Peoples were removed from their homes in order to establish Strathcona Provincial Park, British Columbia's first park, in 1911.[30] As a result, Indigenous nations may be reluctant to support Crown protected area processes. "Historically, Aboriginal Peoples have seen parks as, at best, an abstract European construct far

removed from their own culture's holistic view of land and place or, at worst, just another way of constraining Aboriginal and treaty rights and expropriating lands."[31]

At the same time, modern marine conservation efforts are increasingly aligned with many Indigenous marine management practices.[32] Some Indigenous nations see protected areas and other spatial management measures as a way to recognize and uphold Indigenous laws and rights. More work remains, however, to support Indigenous jurisdiction and co-governance between Crown and Indigenous governments.[33] In many places, a resurgence in Indigenous governance has resulted in many more nations declaring protected areas under their own Indigenous laws, including in marine areas, and establishing and enforcing their own marine management measures.[34]

In 2015, only 0.9 percent of Canada's ocean was under area-based protection, despite efforts by multiple orders of government over several decades..[35] This changed dramatically beginning in 2015, when the newly elected Liberal federal government committed to protecting 10 percent of the ocean by 2020.[36] Marine protected area development accelerated, and, at the time of writing, 13.8 percent of Canada's ocean is protected. The federal government has committed to new targets to protect 25 percent of the ocean by 2025 and 30 percent by 2030.[37] Centring Indigenous-led conservation, equitable governance of MPAs, and strong protection standards that ensure MPA quality and quantity will be essential to achieving these goals.

ASSESSING THE LEGAL OPTIONS FOR MARINE PROTECTION

A number of legal tools are available to spatially protect the coast and ocean. These legal tools, often generically referred to as marine protected areas, draw boundaries around marine areas and manage the activities that take place within them. To be fully effective, spatial protection measures like marine protected areas must be integrated into broader marine spatial planning and complemented by fisheries management measures.[38] When they are, they protect vulnerable habitats and species and restore habitat, and they are essential for the recovery of marine life.

This volume does not discuss voluntary conservation measures. Although such measures are sometimes successful, they are not enforceable. Voluntary measures are always at risk to a change of political heart or new government and have been shown to result in low compliance.[39]

Many other legal tools have been developed in parallel to MPA laws, including measures to reduce pollution, promote cautionary and sustainable

harvesting, protect endangered species, and mitigate climate change. These laws are equally essential to the long-term protection and recovery of the ocean; however, they are outside the scope of this book except to the extent that they overlap with spatial protection.[40]

Fisheries management measures are often considered to be a form of spatial protection, and some legal tools, such as fisheries closures, are included in this analysis. However, the IUCN has indicated that MPAs are distinct from fisheries management measures, and are essential for long-term conservation.[41] First, MPAs take an ecosystem-based approach that extends beyond the impacts of a single species or activity to address interactions among all elements of the ecosystem, as well as cumulative impacts of multiple human activities within the area.[42] Second, MPAs are permanent, long-term forms of protection, whereas fisheries measures are often seasonal and time-limited. Third, commercial fisheries are not the only human activities in the ocean, and MPAs are designed to protect marine wildlife and ecosystems in many forms. MPAs also address other potentially harmful activities, including shipping, log booming and transportation, aquaculture, undersea mining, and offshore oil and gas. Finally, MPAs contribute to a more resilient ocean in the face of climate change by stimulating carbon sequestration and storage, creating a buffer or insurance policy against uncertainties in management, environmental fluctuations, and extreme events.[43]

Criteria for Effective Marine Protection Designations

The legal characteristics of a protected area designation are critical factors in its contribution to long-term, effective conservation. The following criteria are useful when evaluating the range of legal options available:

1 *Responsible order of government.* The first and most obvious question is to determine the responsible order of government, and consider the menu of tools under its jurisdiction. In many cases, more than one order of government will be involved, with each order having partial jurisdiction, and interjurisdictional tools and agreements are required to achieve full protection. International designations, while not affiliated with any particular order of government, can be persuasive in recognizing the ecological significance of an area.
2 *Equitable governance structures.* Governance, which refers to both who makes decisions and how decisions are made, is the foundation for the success of a protected area. As noted above, the establishment of

protected areas in Canada has often been harmful to Indigenous peoples. It is essential that future conservation efforts address the underlying jurisdiction, rights, and title of Indigenous nations and involve Indigenous leadership.[44] Many Crown protected area designations now include frameworks for shared governance or management with Indigenous nations, although a clear legal basis for co-governance is still lacking in Crown legislation, as is an express recognition of Indigenous legal orders.[45]

3 *Conservation objective.* Some legal tools have clear conservation objectives, such as MPAs, national and provincial parks, Indigenous Protected and Conserved Areas, and conservation covenants. Some of these designations may also have other objectives, such as recreation or sustainable use. Some legal tools that were developed for non-conservation purposes, such as fisheries closures and administrative land-use designations, are still used to further conservation goals. Each tool is valuable depending on the circumstances, but conservation tools often have a more robust framework for planning, management, and monitoring of the area.

4 *Protection standards.* The quality of protection afforded by a designation is largely determined by the range of human activities that it restricts or prohibits. Quality protection is essential because well-protected areas contribute significantly more to conservation than areas that allow multiple uses.[46] Protection standards refer to the floor of protections that are provided by a protected area designation, usually in the enabling statute or regulation. For example, the *Canada National Marine Conservation Area Act* prohibits oil and gas activities and undersea mining within all National Marine Conservation Areas, but a similar prohibition is not found in the *Oceans Act* for MPAs. However, the federal government has announced that protection standards will apply to all new federal MPAs, prohibiting bottom trawl fishing, oil and gas activities, ocean dumping, and undersea mining.

   The quality of protection a designation provides is also a question of jurisdiction: for example, provincial and local governments cannot prohibit activities under federal jurisdiction, such as shipping and commercial fishing. Similarly, federal fisheries closures cannot address other human activities such as shipping or oil and gas exploration.

5 *Permanence.* The permanence or durability of a designation is critical to the ecological success of a protected area, as older MPAs give marine habitats and wildlife the time they need to recover and thrive.[47] The

expectation is that most officially designated protected areas, such as national or provincial parks and MPAs, are permanent. In most cases, these areas are designated by regulation or statute, and undoing their designation requires approval from the federal Governor in Council or the provincial Lieutenant Governor in Council,[48] Parliament, or the provincial legislature.

Areas that are protected by ministerial or director's order are much less permanent. For example, fisheries closures, which are established by a Variation Order, are intended as flexible legal tools that can and do change quickly. At the same time, many order-based legal tools have an intended time frame attached to them through government policy. Marine refuges, established by fisheries closures, are intended to last at least twenty-five years.[49] Provincial government policy lays out specific timelines for different designations under the BC *Land Act*.[50] Government policy is not legally binding and is subject to change, but it does offer some transparency on the expected permanence of each legal tool.

6 *Implementation time.* The time a designation will take to implement is also an important consideration, especially given the urgent and compounding ecological crises we currently face. This is the downside of many of the more permanent designations, which often take more time to implement because they must pass through a thorough planning and regulatory development process. This issue is well recognized and has been addressed in the context of *Oceans Act* MPAs through a recent amendment to the act, which allows the Minister of Fisheries and Oceans to establish interim MPAs by ministerial order that last up to five years. Interim MPAs do not grant new protections to an area, but do "freeze the footprint" so that no new activities can take place within the area's borders.[51] By this metric, shorter-term designations such as marine refuges, fisheries closures, and provincial *Land Act* designations are quite useful, and in some cases may be used as an interim measure while longer-term protections are developed.

7 *Monitoring and enforcement.* Although not addressed in detail in this volume, monitoring and enforcement is an ongoing issue for all forms of marine spatial protection.[52] Protected areas that appear strong on their face may not be effective in practice if there is little monitoring and enforcement, and low compliance is a predictor of MPA failure.[53] Effective monitoring and enforcement are key to ensuring compliance with protected area laws, especially for restrictions on industrial human activities.

WHAT WOULD HAVE BEEN different in the last half-century if we had cared differently and better for the Pacific coast and ocean? Would southern resident killer whales be near extinction? Would the Fraser River sockeye have collapsed? We can't know, but we can chart a different course for the future.

A recent study in *Nature* published by some of the most prominent marine scientists found that while our oceans are suffering at an unprecedented scale, we are also in a moment of unique and incredible possibility: if we undertake the right conservation initiatives, starting now, we can substantially rebuild marine life over the next thirty years to its former diversity and abundance.[54] The creation of a vast network of legally protected marine protected areas will be essential to this rebuilding process. We have at our disposal the legal tools to make this happen, and we are going to have to use them. We hope that this book assists all those working towards a future of rivers thick with salmon, of herring runs that sound like rainfall, and of abundance "surpassing imagination to conceive."

1
JURISDICTION

MARINE JURISDICTION IN CANADA is complex and overlapping. The lines between Crown, provincial, federal, and local government jurisdiction are not always clear, nor are Indigenous rights, title, and law consistently honoured and upheld. This complexity can lead to challenge, conflict, delay, and inaction when it comes to protecting ocean areas. For example, many marine parks and protected areas designated by the province are still open to commercial fishing, a federal responsibility. Similarly, local governments may be unable to prevent harmful activities along the coastline that directly affect their communities because they lack sufficient jurisdiction. Indigenous nations that designate protected areas under their own Indigenous laws may struggle to have these protections respected in Crown law.[55]

As a result, intergovernmental collaboration is frequently required to establish protected areas and ensure that they are fully effective. Provincial protected areas can be strengthened through federal fisheries closures, and the federal government can involve provincial and local governments to protect the foreshore in coastal areas. Indigenous nations have protected marine areas under Indigenous law, some of which have been subsequently protected under federal or provincial law with parallel designations, such as SGaan Kinghlas–Bowie Seamount Marine Protected Area.[56] Perhaps the most effective example of intergovernmental collaboration to date is the Marine Protected Area Network in the Northern Shelf Bioregion, or Great

Bear Sea, which is co-led by Indigenous, federal, and provincial governments in the area.[57]

This chapter clarifies some of these issues by outlining the powers and responsibilities held by each order of government. It discusses marine jurisdiction as defined in international law; identifies the different powers held by Indigenous, federal, provincial, and local governments; discusses how these different divisions of power apply to specific marine activities that are commonly at issue; and concludes with a discussion of cooperative federalism, a legal principle that supports intergovernmental collaboration.

Ultimately, in order for marine life to survive and thrive in the future, all governments will need to act to the full extent of their jurisdiction. Governments will also need to commit to deep and ongoing collaboration, maintained through intergovernmental agreements. Many such agreements are already in place on the BC coast, particularly in the form of Crown-Indigenous reconciliation and governance agreements and intergovernmental planning for the coast, ocean, and estuaries.[58] More will be needed.

INTERNATIONAL LAW

The *United Nations Convention on the Law of the Sea* (UNCLOS), often referred to as the "constitution of the oceans," lays out the scope of coastal states' jurisdiction over the adjacent ocean.[59] Jurisdiction is defined in terms of maritime zones: internal waters, territorial sea, exclusive economic zone,

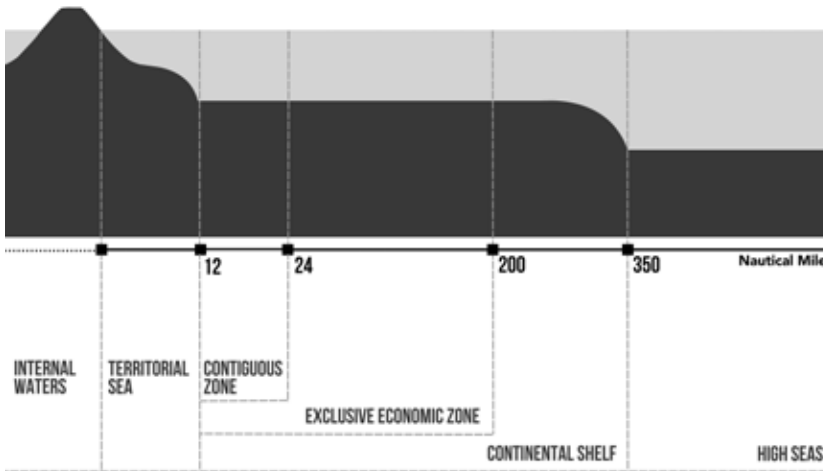

FIGURE 3 **UNCLOS Maritime Zones** (Courtesy Legal Atlas LLC, data from WCEL)

contiguous zone, and the high seas (see Figure 3).[60] Under this framework, a coastal state's jurisdiction decreases as one moves away from shore. Canada has adopted the maritime zones defined in UNCLOS through the *Oceans Act.*[61] A brief overview of the different maritime zones follows.

UNCLOS Maritime Zones

Internal Waters

Under UNCLOS, a country's "internal waters," which include the areas between headlands, such as bays, inlets, and coves, have the same legal status as its land areas.[62] Accordingly, under international law, Canada has full jurisdiction in these areas to protect marine spaces.

Territorial Sea

Under UNCLOS, the territorial sea, which is the strip of sea adjacent to Canada's coast that extends up to twelve nautical miles offshore, is considered part of Canada.[63] Canada can enact spatial protection measures within the territorial sea and regulate all marine activities, including fishing, shipping, and oil and gas activities. However, while Canada may regulate how and where ships travel in the territorial sea, it cannot impair the right of innocent passage by foreign vessels, meaning that foreign ships are allowed to travel from point A to point B within Canadian waters in a peaceful and efficient way.[64]

Exclusive Economic Zone

Canada has sovereign rights within its exclusive economic zone (EEZ), which extends from 12 to 200 nautical miles offshore. Canada has the same rights over the continental shelf if it extends further than 200 nautical miles offshore, as is the case in Atlantic Canada. These rights are more limited than full jurisdiction, but they permit Canada to manage living and non-living natural resources within the EEZ for the purposes of exploration, exploitation, conservation, and management.[65] Canada also has jurisdiction to build structures within the EEZ, conduct scientific research, and take measures to protect the environment.[66] Finally, Canada has the right and duty to protect and preserve the marine environment within the EEZ. In doing so, however, it must have due regard to the rights and duties of other states, particularly foreign states' freedom of navigation.[67]

Canada can establish marine protected areas (MPAs), manage fisheries, and regulate offshore oil and gas within the EEZ. It also can and does regulate many aspects of shipping within the EEZ, but its ability to independently

TABLE 1 Coastal and marine jurisdiction in BC

	International	Indigenous	Federal	Provincial	Local
Legal tools	*UN Convention on the Law of the Sea* *Convention on Biological Diversity* *UN Declaration on the Rights of Indigenous Peoples*	Indigenous Law *Constitution Act, 1982* *UN Declaration on the Rights of Indigenous Peoples*	*Fisheries Act* *Canada National Marine Conservation Areas Act* *National Parks Act* *Canada Shipping Act, 2001* *Oceans Act* *Species at Risk Act*	*Ecological Reserve Act* *Environment and Land Use Act* *Heritage Conservation Act* *Land Act* *Park Act* *Protected Areas of British Columbia Act* *Wildlife Act* *Forest and Range Practices Act*	*Islands Trust Act* *Land Title Act* *Local Government Act*
Responsible authorities	United Nations International Maritime Organization *Convention on Biological Diversity* Conference of the Parties	Indigenous governments	Fisheries and Oceans Canada Environment and Climate Change Canada – Canada Wildlife Services Parks Canada Transport Canada	BC Ministry of Environment and Climate Change Strategy – BC Parks BC Ministry of Water, Land and Resource Stewardship BC Ministry of Forests BC Executive Council, Environment and Land Use Committee	Municipalities Islands Trust Regional districts
Maritime zones	Internal waters Foreshore Territorial sea Exclusive economic zone High seas	Internal waters Foreshore Territorial sea Exclusive economic zone	Internal waters Foreshore Territorial sea Exclusive economic zone	Internal waters Foreshore	Internal waters Foreshore

restrict navigation through speed limits, mandatory shipping routes, and no-go zones is likely more limited.[68] Canada may request that the International Maritime Organization impose ships' routeing measures within the EEZ for the purposes of safe transit and/or environmental protection.[69]

Contiguous Zone

The contiguous zone, from twelve to twenty-four nautical miles offshore, is a part of the EEZ where Canada has some additional legal powers to protect the country's interests. These include the power to enforce its customs, fiscal, immigration, and sanitary laws. Enforcement of these laws against foreign ships requires the approval of the Attorney General of Canada.[70]

High Seas

The high seas is the ocean area beyond any coastal state's EEZ, and it is governed by international convention. Protecting marine spaces in the high seas is beyond the scope of this analysis; and the subject is currently part of ongoing international treaty negotiations under UNCLOS on the conservation and sustainable use of marine biodiversity of areas beyond national jurisdiction.[71]

It is important to note that although at the international level the federal government represents Canada in conventions such as UNCLOS, the country's ocean jurisdiction is divided among the different orders of government, as discussed in the following sections.

INDIGENOUS RIGHTS AND JURISDICTION

Indigenous peoples have rights – recognized under Indigenous law, the Canadian Constitution, the common law, and international law – to govern their traditional territories, including water and marine areas. The extent to which these rights are recognized by the Crown is an ongoing issue, however.

For millennia, Indigenous nations have governed their territories in accordance with their own laws and inherent jurisdiction. This inherent jurisdiction extends governance and law-making authority over a nation's lands, waters, and communities, including the authority to establish protected areas. While inherent jurisdiction is often articulated and understood by nations as a way of maintaining relationships and responsibilities to one's territories, it is important to note that the means of doing so necessarily involves the exercise of governance and law-making authority. This governance authority is recognized by the Constitution, but current Crown policies

limit the extent to which inherent jurisdiction is recognized and can be exercised, meaning that although nations can assert their inherent rights and create their own protected areas, these may or may not be recognized by the Crown.

Indigenous nations also have authority to govern their territories pursuant to their Aboriginal and treaty rights under section 35 of the Constitution, which recognizes land, resource, and governance rights of Indigenous peoples.[72] Perhaps the strongest expression of Indigenous governance authority over territories is found in the Supreme Court of Canada's *Tsilhqot'in* decision.[73] In that decision, the court made a declaration of Aboriginal title, concluding that it confers "the right to decide how the land will be used; the right of enjoyment and occupancy of the land; the right to possess the land; the right to the economic benefits of the land; and the right to pro-actively use and manage the land."[74]

While the Supreme Court of Canada recognized Tsilhqot'in Aboriginal title to land areas, the decision does not preclude the existence of Aboriginal title to marine spaces. Many Indigenous nations claim title over marine territories, asserting a right to exclusive decision-making over their marine territories or choosing to exercise their title through collaborative management over marine territories. Some nations have filed Aboriginal title claims over their marine territories, including the Heiltsuk, Haida, and Dzawada'enuxw Nations on the Pacific coast.[75]

Many Indigenous nations also assert or have proven Aboriginal or treaty harvesting rights within their marine territories, which affords them a degree of governance authority with respect to those marine resources.[76]

The Constitution also aims to protect Aboriginal rights and territories by constraining Crown decision-making in consideration of those rights – by imposing the duty to consult anytime the Crown contemplates a course of action that has the potential to adversely impact Aboriginal or treaty rights, even when those rights have yet to be "proven" or otherwise resolved, including decisions regarding MPAs;[77] by imposing a fiduciary duty on the Crown in relation to Aboriginal rights;[78] and by requiring Crown justification for any conduct or decision that infringes or denies Aboriginal rights.[79]

Canadian courts have also recognized the right to self-government as: (1) a separate and distinct Aboriginal right, for example, a right to self-government in relation to a particular subject matter;[80] (2) an aspect of an Aboriginal or treaty right, for example, a right to govern in relation to specific Aboriginal or treaty rights;[81] and (3) a pre-existing right that

continues notwithstanding the Crown's assertions of sovereignty.[82] The courts' and the Crown's interpretation of Indigenous nations' rights to self-government does not necessarily align with how Indigenous nations understand those rights, but there is a legal basis nonetheless for nations to exercise their right to self-government.

Indigenous jurisdiction is also recognized by other legal instruments. The *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP) is the most comprehensive statement of the rights of Indigenous peoples in international law, recognizing Indigenous nations' collective rights to own, manage, and protect their traditional territories in accordance with their own laws and governance systems.[83] The UN General Assembly adopted UNDRIP in 2007, and Canada agreed to implement it in 2016. The Province of British Columbia passed the *Declaration on the Rights of Indigenous Peoples Act* in 2019 and the federal government enacted similar legislation in June 2021, both of which commit the respective governments to develop an action plan in cooperation with Indigenous peoples to implement the objectives set out in UNDRIP.[84] The application of UNDRIP to Indigenous MPAs is discussed further in Chapter 5.

The federal government has also recognized Indigenous jurisdiction in its *Principles Respecting the Government of Canada's Relationship with Indigenous Peoples,* including the right to self-determination and the inherent right to self-government.[85] The Province of British Columbia recognizes these same rights in its *Draft Principles That Guide the Province of British Columbia's Relationship with Indigenous Peoples,* which are modelled on the federal principles.[86] Modern self-government agreements between Indigenous nations and the Province of British Columbia also recognize that Indigenous groups have legislative powers, including over the environment.[87]

In recent years, Crown governments have developed new protected area designations, such as the provincial conservancy, which recognize Indigenous nations' Aboriginal rights and facilitate cooperative governance of MPAs.[88] Indigenous nations may also declare Indigenous Protected and Conserved Areas pursuant to their own laws and jurisdiction.[89] With recent commitments by federal and provincial governments to implement UNDRIP, along with the existing recognition of Aboriginal and treaty rights under the Constitution, there is ample legal space for all levels of government to work together towards conservation and protection objectives, particularly in ways that respect and build upon Indigenous nations' rights and responsibilities within their territories.

TEXT BOX 1

Co-management and co-governance of protected areas

"Co-management" and "collaborative management" refer to shared decision-making partnerships between Indigenous and Crown governments over land and resource decisions. The level of decision-making responsibility held by Indigenous governments varies depending on the partnership, and at best represents at least equal decision-making between Indigenous nations and the Crown.[90]

However, the term "co-management" has also been used to generally describe situations where Indigenous governments have "some minimal level of ... participation in government management of a resource," regardless of the extent to which decision-making is shared equally.[91] In response to this dilution in meaning, the term "co-governance" is used to refer to "collaborative management approaches where Indigenous peoples have at least equal decision-making authority, decisions are based on both Indigenous knowledge and western scientific knowledge, and both Indigenous and Canadian law is upheld."[92]

FEDERAL AND PROVINCIAL CROWN JURISDICTION

The Canadian Constitution divides jurisdiction between different orders of government. Sections 91 and 92 of the *Constitution Act, 1867* divide legislative powers between federal and provincial governments, respectively, granting legislative jurisdiction over different subjects between the two orders of government.

It is also important to consider the geographical boundaries of the province and the country, as, except in limited cases, the law-making authority of a province is limited to its geographical boundaries. The term "Crown title" is used in this volume to refer to provincial and federal Crown jurisdiction over lands and resources within its boundaries. These typically include any hydrocarbons, minerals, or aggregates on or under the land. As the Crown, federal and provincial governments also have executive power over Crown lands, which refers to the rights that any property owner would have over land, such as the right to sell, lease, or mortgage the land.[93]

Crown jurisdiction is often overlapping between provincial and federal government. For example, the Province of British Columbia holds Crown

title to large areas of the ocean between the mainland and Vancouver Island through its title to the submerged lands and the water column in these areas, but the federal government retains its legislative authority over many activities that take place within the water column, such as navigation, shipping, and fisheries.[94] As a result, marine protection efforts often involve both Crown governments.

Federal Jurisdiction

The federal government has Crown title over Canada's territorial sea, which is defined as beginning at the "baselines" – usually the low-water mark – defined in the *Oceans Act* and its regulations.[95] Under the *Oceans Act,* the federal government also exercises sovereign rights within Canada's EEZ over living and non-living resources, along with jurisdiction over artificial islands, installations and structures, marine scientific research, and the protection and preservation of the marine environment.[96]

Areas of federal legislative authority that are relevant to marine jurisdiction include trade and commerce,[97] national defence,[98] navigation and shipping,[99] and fisheries[100] (including finfish aquaculture licensing in British Columbia).[101] Federal laws relevant to these areas apply throughout the ocean, regardless of whether Crown title is vested in the provincial or the federal government.

Provincial Jurisdiction

Provincial governments have legislative authority over several coastal and marine activities that occur within the boundaries of the province. These include the authority to make laws for public lands that belong to the province;[102] municipal institutions;[103] local works and undertakings;[104] property and civil rights;[105] all matters of a local or private nature;[106] and non-renewable natural resources, forestry resources, and electrical energy.[107] At least thirty marine activities and uses require provincial authorization, including tenures for wharves, finfish and shellfish aquaculture, marinas, renewable energy, and oil and gas development.[108]

The province shares authority over many of these marine activities with the federal government. However, this shared jurisdiction does not prevent the province from regulating activities that are within its jurisdiction. For example, shipping that is strictly intraprovincial may be regulated by the province.[109] The province may also regulate activities within navigable waters that fall within its jurisdiction, such as the management and use of land and natural resources.[110]

Provincial laws apply on land and water within provincial boundaries, which were defined with reference to the boundaries at the time the province joined Confederation.[111] Generally, coastal provinces include all land to the low-tide mark, as well as all "inland waters" – bays, harbours, coves, and other areas that are "within the jaws of the land," or *intra fauces terrae*.[112] In British Columbia, the Supreme Court of Canada has held that the submerged land and the waters between the mainland and Vancouver Island, including the Strait of Juan de Fuca, the Strait of Georgia, Johnstone Strait, and Queen Charlotte Strait, are within the boundaries of the province, and additionally that the province holds Crown title to these lands, submerged lands, and waters.[113] Consequently, the province's law-making authority extends to these areas.[114]

Whether the submerged lands further north, between the mainland and Haida Gwaii, are also within the boundaries of the province is a question that remains unresolved. However, the provincial and federal governments effectively share jurisdiction over the waters of Dixon Entrance, Hecate Strait, and Queen Charlotte Sound. The province has designated MPAs in these regions, and participates in joint federal-provincial-Indigenous ocean management and protected area planning processes on the North and Central Coast.[115]

Provincial laws may apply in offshore areas within federal jurisdiction that are outside provincial boundaries if so prescribed by regulation under the *Oceans Act,* or if the subject matter of the legislation is under provincial jurisdiction and there is a territorial tie to the province.[116] This does not mean, however, that the province has legislative jurisdiction over areas outside its territory.[117] Provincial laws will also apply on federally owned land within the province, such as national parks and public harbours established under the *Canada Marine Act,* but only to the extent that they do not affect the exercise of a "vital part" of federal property rights.[118]

LOCAL GOVERNMENT JURISDICTION

Local governments in British Columbia exercise authority delegated from the provincial government.[119] This is accomplished through the *Local Government Act,* the *Community Charter,* the *Islands Trust Act,* and other provincial legislation. Local governments include municipalities, regional districts, and local trust committees established under the *Islands Trust Act.*[120]

The boundaries of municipalities, regional districts, and local trust areas are set out in letters patent, the legal document that incorporates a local

government and sets out the framework in which it operates.[121] In the case of local governments on the coast, often these boundaries include the foreshore and extend out over marine waters for several hundred metres.[122]

Local governments can use land-use powers, such as zoning, to regulate marine activities that occur on the surface of the water.[123] Local government land-use regulations do not apply to federal Crown lands (even to lessees)[124] or to the provincial Crown on its land.[125] Local government land-use regulations do apply to parties leasing or licensing provincial Crown land.[126] However, any prospective user of Crown land, such as the foreshore and aquatic Crown land, must still get approval from the province. This includes local governments operating within their own boundaries. Local governments may apply to the provincial Crown for a lease or licence of occupation in order to actively use the foreshore or aquatic Crown land, for example, for public recreation or to address coastal erosion.

Local government activities will still be subject to federal regulation and authority, for example, with regard to fisheries and navigation. In terms of local regulation of the foreshore and marine areas within their boundaries, courts have upheld municipal bylaws regulating houseboats and other vessels secured to shore, as well as activities regulating harbour usage and marine activities in limited ways in areas under local government jurisdiction.[127]

The federal government may also delegate authority to local governments. For example, it can delegate authority over harbours to municipalities through terms of agreements under the *Fishing and Recreational Harbours Act*.[128]

TABLE 2 Jurisdiction over marine activities

	Indigenous	Federal	Provincial	Local
Aquatic plant harvesting	×	×	×	×
Commercial fisheries	×	×		
Finfish and shellfish aquaculture	×	×	×	×
Harbours and marinas	×	×	×	×
Mineral exploitation	×	×	×	
National defence		×		
Navigation and shipping	×	×		
Oil and gas	×	×	×	
Ocean dumping	×	×	×	×
Protected areas	×	×	×	×

COOPERATIVE FEDERALISM

Overlapping jurisdiction is an element of Canada's constitutional framework, and it arises frequently with respect to environmental and ocean issues. For example, both the federal and provincial governments can regulate regarding marine pollution, though the province's jurisdiction is restricted to the area over which it has Crown title.[129]

Canadian courts have endorsed the principle of cooperative federalism, which recognizes "the inevitability of overlap between the exercise of federal and provincial competencies" and presumes that governments intend their laws to coexist with laws made by different orders of government, as "interlocking ... legislative schemes."[130] The principle of cooperative federalism "accommodates overlapping jurisdiction and encourages intergovernmental cooperation."[131]

The case law on cooperative federalism primarily addresses instances of federal-provincial overlap, where the legislative powers listed in both sections 91 and 92 of the *Constitution Act, 1867* apply. However, both Canada and the Province of British Columbia have recognized that "Indigenous self-government is part of Canada's evolving system of cooperative federalism and distinct orders of government."[132]

The principle of cooperative federalism supports interjurisdictional marine planning processes and marine protection efforts. The marine planning process in British Columbia's Northern Shelf Bioregion (which extends from the northern part of Vancouver Island up to Alaska) is a landmark example of cooperative federalism in action, where federal, provincial, and Indigenous governments in the area have cooperatively established a network of MPAs within the region.[133]

Conflict between and within Governments

Conflict can arise between and within governments, when one authority approves a marine activity in an area of the ocean that has been designated for protection by another authority. In the case of conflict between provincial and federal laws, both of which are constitutionally valid, the doctrine of paramountcy may apply. Under paramountcy, valid federal laws override valid provincial legislation when it is impossible to comply with both (called an "operational conflict"), or where the provincial law frustrates the purpose of the federal law.[134] This doctrine does not apply unless there is a conflict: the mere existence of duplicate federal legislation is not enough to override valid provincial laws.[135]

Conflict may also arise between Crown and Indigenous governments. For example, there are several examples on the Pacific coast of Fisheries and Oceans Canada (DFO) declining to implement fisheries closures requested by coastal Indigenous nations. In some instances, nations have decided to implement fisheries closures under their own laws. Without the ability to enforce these closures under Crown law, Indigenous nations have used other measures, including requesting voluntary compliance from fishers, entering into agreements with the commercial fishing sector, scientific monitoring of fish and shellfish populations, direct action, and litigation.[136] Many of these efforts have eventually resulted in the implementation of fisheries closures by DFO, and in some cases have led to greater collaboration between DFO and coastal Indigenous nations in the management of certain fisheries.[137]

2
INTERNATIONAL LAW

MOST OF THE WORLD'S OCEAN is outside the territorial limits of national jurisdiction, beyond the power of any one country to attend to through law. Even those areas within a single country do not remain static, as the ocean and the marine species that live within it are constantly in motion. International law is therefore essential to marine governance and marine spatial protection.

International law that applies to the sea has been largely developed over the last four centuries.[138] A series of treaties, customary law, and general principles make up the legal framework for both marine areas under national jurisdiction and on the high seas, the latter a term used to describe the approximately 64 percent of the ocean that is not controlled by any one country, located in areas beyond national jurisdiction.[139] These laws also influence the development of ocean laws and policies within coastal states like Canada.

There are two main types of international law: *hard law,* or treaties, which are legally binding; and *soft law,* or non-legally binding guidance, targets, and goals from international bodies. Treaties are the main source of international law for the ocean, and are legally binding on states that have consented to be bound.[140] These states are referred to as parties to the treaty, and are expected to implement the treaty's obligations in their domestic laws so that the treaty becomes binding law within the country.[141] For example, the *United Nations Convention on the Law of the Sea* (UNCLOS)

provisions on maritime zones, discussed in Chapter 1, have been implemented in Canadian law through the federal *Oceans Act.*

Soft law, in the form of non-legally binding guidance, targets, and goals from international bodies, also influences Canadian federal ocean law and policy. For example, the International Union for Conservation of Nature (IUCN) is an important source of non-binding international guidance on protected areas, and has released guidance on other effective area-based conservation measures (OECMs) and protected area guidelines that have influenced domestic policies in Canada.[142] Soft law also includes conference declarations, such as the 1992 Rio Declaration on Environment and Development; outcomes from UN meetings, such as the 2015 UN Sustainable Development Summit, where UN member states adopted the 2030 Agenda for Sustainable Development and its seventeen Sustainable Development Goals (SDGs); and internationally agreed upon numerical targets, such as Aichi Target 11 under the *Convention on Biological Diversity* (CBD) to protect 10 percent of the ocean by 2020.[143]

There are sometimes conflicts and inconsistencies between different international law and/or guidance documents. For example, both the IUCN and CBD have released guidance documents on OECMs that do not entirely align with one another.

This chapter clarifies the international legal framework for marine protection as laid out in significant ocean treaties (Table 3). It identifies the legally binding international protected area designations that are most relevant for marine conservation in British Columbia. It also provides an overview of the voluntary international designations that, while not binding in law, may guide decision-makers in Canada when identifying new areas for protection.

SIGNIFICANT INTERNATIONAL TREATIES FOR THE PROTECTION OF MARINE AREAS

United Nations Convention on the Law of the Sea

The *United Nations Convention on the Law of the Sea* is the principal governing body of law over the ocean.[144] It was signed by 199 states in 1982, and came into force in 1994. UNCLOS has been described by the United Nations Secretary-General as "[p]ossibly the most significant legal instrument of this century."[145] Canada played a leading role in the development of the treaty, which it ratified in 2003.[146]

TABLE 3 Key international instruments for marine protection in Canada

	Name	Acronym	Year	Description	Incorporation into Canadian law	Spatial Protection tools
Foundational legal instruments	*United Nations Convention on the Law of the Sea*	UNCLOS	1982	The "constitution" of the ocean, developed to create a legal order for the ocean, including the peaceful and equitable use of the ocean and its resources, and the protection of the marine environment	*Oceans Act*	–
	Convention on Biological Diversity	CBD	1993	The convention designed to protect biodiversity and promote equitable and sustainable use of its components	–	OECMs[1] EBSAs[2] Conservation targets
	United Nations Declaration on the Rights of Indigenous Peoples	UNDRIP	2007	The most comprehensive statement on the rights of Indigenous peoples in international law, designed to enshrine the rights that constitute the minimum standards for Indigenous peoples' survival, dignity, and well-being	*United Nations Declaration on the Rights of Indigenous Peoples Act (Canada)* *Declaration on the Rights of Indigenous Peoples Act (BC)*	–
Navigation and shipping treaties	*International Convention for the Safety of Life at Sea*	SOLAS	1980	The most important convention for the safety of commercial ships, by specifying minimum standards for ship construction, operation, and navigation	*Canada Shipping Act, 2001*	Areas to be avoided Traffic separation schemes No anchoring areas
	International Convention for the Prevention of Pollution from Ships	MARPOL	1983	The main international convention dealing with the prevention of pollution of the marine environment by ships	*Canada Shipping Act, 2001*	Emission control areas Special areas

Species and habitat protection	*Migratory Bird Convention*	MBC	1916	A convention between the United States and Canada to protect migratory birds	*Migratory Birds Convention Act*	Migratory bird sanctuaries
	Convention on Wetlands of International Importance Especially as Waterfowl Habitat	*Ramsar Convention*	1981	Convention providing for the protection and sustainable management of wetland ecosystems	–	Ramsar sites
	Pacific Salmon Treaty	–	1985	Treaty between Canada and the United States with the goal of rehabilitating and restoring marine and freshwater habitat to enhance productivity and protection of Pacific salmon	–	–
	United Nations Fish Stocks Agreement	UNFSA	2001	An agreement that enhances cooperative conservation and management of highly migratory and straddling fish stocks	–	–
Heritage protection	*World Heritage Convention*	WHC	1976	An international treaty between member states of UNESCO that establishes the World Heritage List of natural or cultural importance to the international community	–	World Heritage Sites

1 Other effective area-based conservation measures.
2 Ecologically and Biologically Significant Areas.

The stated purpose of the treaty is to create a "[l]egal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilisation of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment."[147] It covers issues ranging from maritime zone demarcation, shipping and navigational rules, prevention of marine pollution, and cooperation on fisheries stocks to rules for conducting scientific research and the development of marine technology. The treaty establishes three new institutions: the International Tribunal for the Law of the Sea, the International Seabed Authority, and the Commission on the Limits of the Continental Shelf.

UNCLOS requires states to protect the marine environment, to cooperate in the development of laws, and to adopt and enforce internationally agreed standards to protect the marine environment. The convention does not refer to marine protected areas (MPAs) and does not contain any mechanisms to establish MPAs by parties acting within the limits of their territorial jurisdiction. A goal of the upcoming high seas biodiversity agreement is to create a procedure for MPAs in areas beyond national jurisdiction.[148]

Environmental Responsibilities under UNCLOS

Under UNCLOS, Canada is responsible for caring for all areas of the ocean that are under its jurisdiction. Article 192 of UNCLOS states that "States have the obligation to protect and preserve the marine environment." Any exploitation of natural resources should be done in accordance with this duty.[149] Article 194 requires that states take all measures necessary to prevent marine environmental pollution, including measures "necessary to protect and preserve rare or fragile ecosystems" and the habitat of depleted, threatened, or endangered marine life, so long as they do not unjustifiably interfere with other states' rights under UNCLOS.[150]

Convention on Biological Diversity

The *Convention on Biological Diversity,* which came into force in 1993, represents a consensus that international cooperation was needed to protect species and habitats from commercial exploitation, and particularly to protect migratory and transboundary species, and marine species living in areas beyond national jurisdiction.[151] Canada assumed international obligations to protect marine and terrestrial biodiversity when it became a party to the CBD in 1992.

The CBD covers three themes: (1) the conservation of biological diversity (or biodiversity); (2) the sustainable use of its components; and (3) the fair and equitable sharing of benefits arising from genetic resources. Parties to the CBD are required to "implement this Convention with respect to the marine environment consistently with the rights and obligations of States under the law of the sea."[152] While the CBD explicitly states that rights and obligations are not affected, this does not mean that parties to UNCLOS can rely on UNCLOS to justify fishing or other activities authorized under the treaty that threaten serious damage to biodiversity.[153]

Parties to the CBD commit to prepare National Biodiversity Strategies and Action Plans to implement the convention at the national level.[154] In 2015, the federal, provincial, and territorial ministers adopted the 2020 Biodiversity Goals and Targets for Canada.[155] Most significantly for the purposes of this analysis, the CBD requires parties to "establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity."[156] The CBD further requires parties to undertake other actions relevant to protected areas, including to promote the protection of ecosystems, natural habitats, and species conservation in natural surroundings, and to rehabilitate and restore degraded ecosystems.[157]

Decisions about the CBD are made at periodic "Conferences of the Parties" (COPs), which often flesh out essential details of the treaty and are implemented by the parties to the treaty. These decisions are not technically legally binding unless they are incorporated into the treaty itself. The parties to the CBD have established a number of procedures, rules, and targets for protected areas, including Ecologically and Biologically Significant Areas (EBSAs), described under Voluntary International Marine Conservation Designations below.[158] Another example consists of the twenty global Aichi Targets adopted by the CBD COP in 2010. While several of these targets are relevant to marine and coastal areas, Target 11 is the sole numerical target among the Aichi Targets and, perhaps as a result of its specificity, has received the most attention from the global community:[159]

> By 2020, at least 17 per cent of terrestrial and inland water areas and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascape.

TEXT BOX 2

International targets for marine protection influence national targets

Canada's Target One from the 2020 Biodiversity Goals and Targets for Canada is based on CBD Aichi Target 11, and states: "By 2020, at least 17 percent of terrestrial areas and inland water, and 10 percent of marine and coastal areas of Canada are conserved through networks of protected areas and other effective area-based measures." Canada's Target One does not include Aichi Target 11's requirements for effective and equitable management, representativeness and connectivity, and integration into wider landscapes or seascapes.

Canada incorporated Aichi Target 11 into its own marine conservation target to protect 10 percent of the ocean by 2020. Aichi Target 11 has also influenced Canadian policy by referring to "other effective area-based conservation measures" (OECMs). Canada, through Fisheries and Oceans Canada (DFO), has produced guidance on OECMs and catalogued a range of new protected areas that qualified as OECMs.[160]

International Agreements on Indigenous Peoples' Legal Rights

Indigenous legal rights have developed in parallel with, though more slowly than, the international body of law on human rights.[161] The two major international legal instruments on Indigenous rights are the *Convention Concerning Indigenous and Tribal Peoples in Independent Countries* (*ILO Convention 169*) and the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP). Canada is not a signatory to *ILO Convention 169*.

UNDRIP, adopted by the UN General Assembly in 2007, is the most comprehensive statement of the rights of Indigenous peoples in international law.[162] Canada agreed to implement UNDRIP in 2016 and passed the *United Nations Declaration on the Rights of Indigenous Peoples Act* in 2021, the purpose of which is to affirm UNDRIP and its application in Canadian law, and to provide a framework for its implementation in Canada.[163] British Columbia enacted similar legislation on implementing UNDRIP in 2019.[164] Federal and provincial protected area legislation have an important role to play in implementing UNDRIP within Canada.[165]

International Shipping Treaties

The International Maritime Organization (IMO) is a specialized agency of the United Nations responsible for creating a universal regulatory framework for the shipping industry that includes global standards for the safety, security, and environmental performance of international shipping.[166] It was established under the *Convention on the International Maritime Organization,* which was adopted in 1948 and entered into force in 1958.[167]

The IMO administers numerous treaties, the two most important of which are the *International Convention for the Safety of Life at Sea* (SOLAS), 1974, as amended,[168] and the *International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocol of 1978* (MARPOL).[169] These treaties provide area-based protection measures to address the environmental impacts of shipping and improve safety of navigation, discussed further below under "Strengths of IMO Shipping Designations."

Fisheries and Regional Fisheries Management Treaties and Organizations

International fisheries law is a critical part of the international legal order for the oceans. Fisheries are one of the most impactful human activities in the ocean, but unlike the shipping sector, there is no global standard-setting body for fisheries. Fisheries agreements do not usually contain specific requirements for parties to establish marine spatial protections, and more often refer to the need for habitat and species protection in general terms.

However, a number of international organizations and treaties do address some of the impacts of fishing. The United Nations Food and Agriculture Organization (FAO) is an influential body in fisheries management, and its 1995 *Code of Conduct for Responsible Fisheries* refers to the need for states to conserve aquatic ecosystems.[170] The FAO developed *International Guidelines for the Management of Deep-Sea Fisheries in the High Seas,* which contain detailed guidelines on identifying Vulnerable Marine Ecosystems (VMEs), discussed below under "Voluntary International Marine Conservation Designations."

In addition, UNCLOS refers to regional fisheries management organizations (RFMOs), whose primary role is to manage and conserve fish stocks regulated by species-specific treaties on the high seas.[171] However, UNCLOS does not address the rights and responsibilities of states regarding highly migratory and straddling fish stocks, so another international treaty was developed to fill this gap. The *United Nations Agreement for the Implementation*

of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, also known as the *United Nations Fish Stocks Agreement* (UNFSA), contains obligations to conserve and manage highly migratory and straddling fish stocks in international waters and coordinate those measures with actions taken under domestic law.[172] It further establishes the obligation of states to protect biodiversity in the marine environment, which is not addressed under UNCLOS.[173] The *Fish Stocks Agreement* provides that regional fisheries organizations are the main vehicles for cooperation.[174]

The annual *UN General Assembly (UNGA) Resolution on Oceans and Law of the Sea* is another source of guidance. In 2003, the resolution reinforced conclusions from the 2002 World Summit on Sustainable Development, which contained a commitment by states to establish "marine protected areas consistent with international law and based on scientific information, including representative networks by 2012,"[175] and called on states to develop programs for "halting the loss of marine biodiversity, in particular fragile ecosystems,"[176] establishing marine protected areas,[177] and protecting VMEs.[178] A later UNGA resolution called on states to, directly or through RFMOs, apply the precautionary approach and ecosystem approach to sustainably manage fish stocks and protect VMEs.[179]

There are many bilateral Canada-US treaties, such as the *Pacific Salmon Treaty,* the halibut treaty, and agreements on albacore tuna, fisheries enforcement, and cooperation in the Georgia Basin and Puget Sound ecosystems, among others. These treaties are beyond the scope of this analysis.

Other Treaties with Marine Protection Designations

Other international conventions contain provisions that allow for marine spatial protection, but as Canada is not a party to these treaties, they do not apply in this country.

Convention on the Conservation of Migratory Species of Wild Animals

The 1979 *Convention on the Conservation of Migratory Species of Wild Animals* (CMS) is a framework treaty that encourages nations to protect migratory species. It lists species in two appendices. Appendix I lists migratory species that have been assessed as being in danger of extinction throughout all or a significant portion of their range listed. The treaty mandates

strict protection of these species, which will require habitat protection, and potentially protected areas. Appendix II covers migratory species that have an unfavourable conservation status and that require international agreements for their conservation and management.

CMS encourages the "range states" of species listed in Appendix II to conclude global or regional agreements for the conservation and management of individual species or groups of related species. These "daughter" agreements may take the form of legally binding agreements or memoranda of understanding, action plans, or species initiatives. Species with "unfavourable conservation status" require restoration to favourable conservation status.

International Convention for the Regulation of Whaling

The International Whaling Commission (IWC) is an intergovernmental organization established in 1946 to regulate commercial whaling and administer the *International Convention for the Regulation of Whaling,* to "provide for the proper conservation of whale stocks."[180]

In addition to applying catch limits (an international moratorium on commercial whaling established in 1986), the IWC has established whale sanctuaries in areas of the high seas where commercial whaling is prohibited. It has designated two whale sanctuaries, one in the Indian Ocean (established in 1979) and one in the Southern Ocean around Antarctica (established in 1994). Canada was formerly but is no longer a party to the *International Convention for the Regulation of Whaling.* Whale sanctuaries may only be designated outside national territorial limits.

UNESCO *Convention on the Protection of the Underwater Cultural Heritage*

The *Convention on the Protection of the Underwater Cultural Heritage* (CPUCH) was adopted by the United Nations Educational, Cultural and Scientific Organization (UNESCO) in 2001 entered into force in 2009. It is designed to provide a "common legally binding framework for State Parties on how to better identify, research and protect their underwater heritage while ensuring its preservation and sustainability." Underwater cultural heritage is defined in CPUCH as "all traces of human existence of a cultural, historical or archaeological nature which, for at least 100 years, have been partially or totally immersed, periodically or permanently, under the oceans and in lakes and rivers."[181]

CPUCH sets out principles for the protection of underwater cultural heritage, provides a system for state cooperation, and provides practical rules for treating and researching underwater cultural heritage.[182] The protection of underwater cultural heritage may also have incidental benefits for the marine environment. For example, the CPUCH "rules concerning activities directed at underwater cultural heritage" require that any such activities include, among other things, an environmental policy that assesses the vulnerability of the area and surrounding natural environment, and that ensures that the seabed and marine life are not unduly disturbed.[183]

UNESCO also claims that conservation of underwater cultural heritage will promote understanding of climate change and rising sea levels.[184] Furthermore, UNESCO identifies climate change and environmental degradation caused by trawling, dredging, and marine resource exploitation as threats to underwater cultural heritage.[185]

CPUCH has been the subject of several critiques. For example, it has been criticized as a threat to admiralty law in parts of the world where treasure seeking is a prosperous private industry.[186] Critics have also questioned whether the definition of cultural heritage is too expansive and whether the lack of distinct recognition of the underwater cultural heritage of Indigenous peoples is problematic.[187]

Canada is not currently a party to CPUCH, and there are no examples of CPUCH projects in British Columbia.[188] However, as an active member of UNESCO, Canada voted in favour of CPUCH and is considering the process of ratification and implementation.[189] Several other major maritime states have also not ratified CPUCH, including the United States, the United Kingdom, Russia, Germany, and the Netherlands.[190]

INTERNATIONAL MARINE CONSERVATION DESIGNATIONS

Although there are several international agreements that address ocean governance, only a few include legally binding designations for ocean protection. These primarily relate to shipping measures, overseen by the International Maritime Organization, as well as World Heritage Sites and Ramsar sites. As noted in the introduction to this chapter, the treaties that support these designations are legally binding on states that have consented to be bound. Table 4 outlines the key international marine conservation designations that are considered legally binding in Canada, discussed in detail in this section.

TABLE 4 International law: Legally binding designations for coastal and marine protection

Designations	Instruments	Organizations	Description	Number of designations		
				World	Canada	BC
Areas to be avoided	*International Convention for the Safety of Life at Sea*	International Maritime Organization	Areas that certain classes of ships are recommended or required to avoid.	15+	1	0
Emission control areas	*International Convention for the Prevention of Pollution from Ships*	International Maritime Organization	Areas where airborne emissions from ships are more strictly controlled to minimize pollution.	10	2	2
Particularly sensitive sea areas	*Non-binding IMO Assembly Resolution*	International Maritime Organization	Areas of the sea that require extra protection because of their ecological, socioeconomic, or scientific significance.	17	0	0
Ramsar sites	*Convention on Wetlands of International Importance especially as Waterfowl Habitat*	Ramsar Convention	Wetland areas that are conserved or sustainably used through local, national, and international cooperation.	2,471	37	3
Special areas	*International Convention for the Prevention of Pollution from Ships*	International Maritime Organization	Areas of the sea that require stronger pollution control measures because of their oceanographical or ecological characteristics.	24	0	0
World heritage sites	*World Heritage Convention*	UNESCO	Areas with cultural and natural heritage of "outstanding universal value" that are to be protected for future generations.	1,154	20	3

UNESCO World Heritage Sites: *Convention Concerning the Protection of the World Cultural and Natural Heritage* (1972)

The *Convention Concerning the Protection of the World Cultural and Natural Heritage* (the *World Heritage Convention*) was adopted by UNESCO in 1972 and came into force in 1975. It now has 193 parties, making it one of the most widely adopted international treaties of any kind.[191] Canada became a party to the *World Heritage Convention* in 1976.

Parties assume a duty to ensure the identification, protection, conservation, presentation, and transmission of their natural and cultural heritage sites to future generations when they ratify the treaty.[192] Only parties to the *World Heritage Convention* can submit nominations for marine (and terrestrial) World Heritage Sites in their territory to be considered for inclusion in UNESCO's World Heritage List. The Canadian federal government asks the

TEXT BOX 3

Criteria in assessment of "Outstanding Universal Value" for World Heritage Sites

To be included on the World Heritage List, sites must be of outstanding universal value and meet at least one out of ten selection criteria.

Selection criteria

(i) to represent a masterpiece of human creative genius;

(ii) to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

(iii) to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

(iv) to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

(v) to be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

public for nomination proposals, but the treaty does not require this type of public involvement.

To be designated a World Heritage Site, a site must have "Outstanding Universal Value," a term that is mentioned but not defined by the treaty. The Operational Guidelines for the Implementation of the *World Heritage Convention* elaborate: "Outstanding Universal Value means cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity."[193]

Parties may nominate sites for natural or cultural value, or for both values. Currently, three-quarters of World Heritage Sites are cultural sites, and most of the rest are natural sites.[194] There is also a small number of mixed (both cultural and natural) sites. The first marine site on the UNESCO

(vi) to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria);

(vii) to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance;

(viii) to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features;

(ix) to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals;

(x) to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of Outstanding Universal Value from the point of view of science or conservation.

World Heritage List was listed in 1981; by 2020, there were fifty marine and coastal sites in thirty-seven countries.

The World Heritage Committee, the treaty's governing body, evaluates sites before making a final decision on a nomination. Every nominated site in Canada must demonstrate that it is protected and managed under Canadian (federal, provincial, territorial, and/or municipal) legislation and policies, and that it has a management plan in place that is able to ensure the continued protection of the values that led to the site's inscription.

Once a site is inscribed in the UNESCO World Heritage List, states must monitor it to ensure that its Outstanding Universal Value is maintained. Parties must do their "utmost" to ensure the protection of their natural and cultural heritage.[195] A key obligation of all parties to the World Heritage Convention is their undertaking not to take "any deliberate measures" that might directly or indirectly damage listed sites.[196] States have an obligation to prepare periodic reports on a six-year cycle about each site's state of conservation and protection.[197] State parties may be asked to submit specific reports each time there are potential or perceived threats that may have an effect on the state of conservation of the property.

The convention requires parties to "ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory," which may include adopting protection policies, taking legal measures, setting up services and assigning staff to monitor conservation, and developing scientific and technical studies and research.[198] One of the duties of the World Heritage Committee is to examine reports on the state of conservation of sites. The treaty provides for the establishment of a "List of World Heritage in Danger." If the committee determines that a site is at risk, it may add the site to this list or, in rare cases, remove it from the World Heritage List altogether. The committee may list a site as "In Danger" only when it meets all of the following requirements: (1) a serious and specific danger threatens the property; (2) conservation of the property requires major operations; and (3) someone has requested assistance for the property.[199]

UNESCO has recognized that climate change is becoming one of the most serious threats to sites. Sea-level rise, ocean acidification, coral reef bleaching, increased extreme weather events, and warming ocean temperatures are among the most prominent climate-induced risks to marine sites on the World Heritage List. Science suggests that as ocean temperatures change, fish and marine mammals will migrate out of the protection

of World Heritage Sites in search of cooler waters. Furthermore, ocean acidification could cause the collapse of entire food webs. Damage to the ecological integrity of these sites will also have devastating impacts on the local, human communities that depend upon the marine ecosystems within World Heritage Sites.[200]

The World Heritage Committee requires parties to the convention to adhere to the principles of UNDRIP.[201] States must respect the rights of Indigenous peoples when identifying, nominating, managing, and reporting on World Heritage Sites incorporating or affecting Indigenous peoples' lands, territories, or resources. Indigenous peoples must be fully consulted and directly involved in the identification, decision-making, and management of World Heritage Sites within or affecting their lands, territories, and resources, through representatives they themselves choose in accordance with their own procedures and institutions. States must demonstrate that they have obtained the "free, prior and informed consent" of Indigenous peoples before nominating sites for inclusion in the World Heritage List.[202]

Parks Canada is the Government of Canada's representative for the *World Heritage Convention,* and has either full or shared responsibilities for the management of twelve of Canada's nineteen designated World Heritage Sites. The remaining seven sites are managed by other jurisdictions, such as municipal or provincial authorities.[203]

Examples in British Columbia

In British Columbia, SGang Gwaay World Heritage Site, a three-square-kilometre island inscribed in 1981 as a cultural site, has a marine area. It lies within the boundaries of Gwaii Haanas National Park Reserve and Haida Heritage Site, which is itself a site on Canada's Tentative List of potential future World Heritage Sites. Gwaii Haanas was added to the Tentative List in 2004, and is proposed for inclusion under multiple criteria. The terrestrial area consists of 138 islands, and has an area of 1,495 square kilometres, with a surrounding marine conservation area of 3,400 square kilometres.

Canada currently has eight Cultural World Heritage Sites, ten Natural World Heritage Sites, and one Mixed World Heritage Site. Its Tentative List was updated in 2017. This list is made up of nominated sites with strong potential to be inscribed in the World Heritage List. Inclusion in the Tentative List is required before the World Heritage Committee will consider a nomination for inscription in the World Heritage List.

Two marine sites were added to Canada's Tentative List in 2017: (1) Hecate Strait and Queen Charlotte Sound Glass Sponge Reefs, proposed by Fisheries and Oceans Canada, the Heiltsuk Nation, the Kitasoo/Xai'Xais Nation, the Wuikinuxv Nation, the Nuxalk Nation, and the Canadian Parks and Wilderness Society; and (2) Sirmilik National Park and the proposed Tallurutiup Imanga National Marine Conservation Area, an exceptional representation of the high Arctic coastal ecosystem proposed by Parks Canada.

Strengths of World Heritage Sites

World Heritage Sites have visibility and prestige. The sites are profiled in national and international media. Natural World Heritage Sites are often large in area, and therefore offer the potential for large-scale conservation.

The *World Heritage Convention* has relatively strong accountability features. First, states must maintain the condition of listed sites, and are precluded from directly or indirectly damaging these sites. Second, the convention requires states to report regularly on each site's state of conservation. Third, each site is reviewed every six years as part of the monitoring regime. If a site faces a serious threat, a reactive monitoring visit and report can occur.

Consequences for non-compliance are also strong compared with other treaties. The monitoring missions for sites considered at risk is one form of accountability. UNESCO may revoke a site designation if the property loses its qualifying characteristics.[204] The procedure to list sites as "In Danger" also differentiates this treaty from others. Sites so listed are more susceptible to international attention and scrutiny. The fear of revocation and the associated loss of prestige can act as an incentive for countries to maintain and protect their World Heritage Sites. A proposal to put a site on the list can act as a "fire alarm," alerting the international community of risk to a site (often stemming from war or civil unrest), or as a disciplinary action that "names and shames" a state for inappropriate development that threatens a site.[205]

Campaigning to place a site on the List of World Heritage in Danger brings a wealth of attention (and sometimes improvement) to the quality of a government's conservation efforts, as seen in the case of the Great Barrier Reef in Australia. In 2017, the World Heritage Committee decided not to add the Great Barrier Reef to the List of World Heritage in Danger, rejecting a campaign by scientists and conservationists who raised concerns about the reef's deteriorated condition and risks from bleached coral, pollution,

overfishing, and sediment damage. The Australian government avoided placement of the Great Barrier Reef on the danger list by producing a "Reef 2050 Long-Term Sustainability Plan," and introducing several legislative initiatives to limit damage and reduce risks to the reef. Unfortunately, this World Heritage Site remains in grave danger due to climate change and pollution. The latest *Great Barrier Reef Outlook Report* remarks on its current condition:

> While the property's outstanding universal value as a World Heritage Area remains whole and intact, its integrity is challenged and deteriorating. Given the global scale of human-induced climate change, the size of the property is becoming a less effective buffer to broad scale and cumulative impacts. Attributes that remain in good condition at a Region-wide scale include the spectacular scenery, over half of the ecosystem processes, and some species components.[206]

World Heritage Sites usually involve a high degree of public engagement and community involvement. The *World Heritage Convention* encourages parties to prepare nominations with the widest possible participation of stakeholders. Listing increases the participation of local and national populations in the protection and presentation of their listed sites. Other benefits of World Heritage Site designation can include increased tourism, funding, public attention, and jobs for the local community. Parties have access to a World Heritage Fund, and may also request international assistance for projects, though this assistance is supplementary and for use only when adequate resources cannot be secured at the national level.[207] Managers of marine World Heritage Sites meet regularly to share information and ideas, and enjoy the benefits of in-person meetings and exchange visits as part of network participation.

A significant strength is the way this treaty addresses Indigenous jurisdiction and rights. It emphasizes collaboration with Indigenous peoples, and is unique among international environmental treaties in requiring the free, prior, and informed consent of Indigenous peoples for site nominations; it does, however, use the qualifier "as appropriate."[208]

There are also substantive conservation benefits to World Heritage Site designation. Designation can result in enhanced environmental protection, and even act as a roadblock to industrial development. For example, in 1983, the Tasmania state government unsuccessfully challenged the Australian

national government's *World Heritage Properties Conservation Act 1983,* which, along with another piece of legislation, effectively prevented the Tasmanian government from erecting a dam in a newly designated World Heritage property.[209] While the listing of an area as a World Heritage Site is not enough by itself to prevent environmental degradation, the designation can be a persuasive evidentiary factor in litigation when combined with domestic law protective measures.

Weaknesses of World Heritage Sites

Similar to all international marine protection designations, a World Heritage Site will receive only as much legal protection as national and subnational governments provide through domestic legislation and enforcement. Again, like most international designations, World Heritage Site designation also requires committed community members and governments who are willing to invest funds, time, and energy in the process. Acquiring the designation can be costly, and includes the costs of preparing nomination documents and supporting studies. The costs of maintaining and reporting on a site also can be extensive. Other costs may include conservation costs, visitor and learning centre creation, and transportation networks.

Designation as a World Heritage Site may face opposition due to concerns about site operation. For example, in British Columbia, the Steveston Harbour Authority opposed the Steveston Historical Society's proposed nomination of the Steveston Waterfront because it would hinder the Harbour Authority's ability to maintain the harbour as a working industrial harbour.

The gestation period for identification, application, nomination, and designation of World Heritage Sites can often be very long. For example, Canada updates its Tentative List of World Heritage Sites only once a decade. Prior to 2017, the list had last been updated in 2004. Five sites remain on the Tentative List from the 2004 update. State parties may present a site for nomination to the World Heritage Committee only once, except in exceptional circumstances, such as new discoveries, new scientific information about the property, or different criteria not presented in the original nomination. In these cases, a new nomination may be submitted.

Increased publicity can be both a strength and a weakness. While designation can focus a great deal of international attention if the site is threatened or falls into disrepair, it also attracts a volume of tourism that may threaten ecologically sensitive sites. The example of the Great Barrier Reef shows this dynamic in action.

Ramsar Sites: *Convention on Wetlands of International Importance Especially as Waterfowl Habitat* (1971)

The *Convention on Wetlands of International Importance Especially as Waterfowl Habitat* (the *Ramsar Convention*) was negotiated throughout the 1960s, was adopted in the city of Ramsar in Iran 1971, and came into force in 1975, making it one of the oldest international environmental agreements and the first to address protection of a particular habitat type.[210] The need to protect habitat sites along the entire route of a migratory bird's flyway is a justification for international regulation for wetlands, a topic that would otherwise be the sole responsibility of the state in whose territory the wetland is located. The purpose of the treaty is to "conserve and ensure wise use of all wetlands through local and national actions, and international cooperation, as a contribution toward achieving sustainable development throughout the world."

Treaty obligations include a requirement for countries to "formulate and implement their planning so as to promote the conservation of the wetlands included in the List, and as far as possible the wise use of wetlands in their territory." Parties commit themselves to national planning for the "wise use" of the wetlands in their territory. "Wise use of wetlands is the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development."[211]

The Ramsar strategic plan has three pillars: (1) the wise use of all wetlands; (2) the designation and management of Wetlands of International Importance (Ramsar sites); and (3) international cooperation, including on shared wetlands, river basins, and populations of migratory waterbirds.

The convention has a broad definition of wetlands: "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres."[212] This definition is reinforced by another provision that requires "precisely defining" the boundaries of each wetland and delimiting them on a map, which "may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands, especially where these have importance as waterfowl habitat."[213]

Each party must designate at least one wetland site within its territory for inclusion in the List of Wetlands of International Importance (the Ramsar List) at the time it joins the convention.[214] The wetlands nominated

for inclusion must have international significance in terms of their ecology, botany, zoology, limnology, or hydrology. The emphasis on wetlands that are waterfowl habitat is clear: "In the first instance wetlands of international importance to waterfowl at any season should be included."[215]

Parties assume an obligation to monitor the condition of the wetland and determine whether any site has changed, is changing, or is likely to change as a result of technological developments, pollution, or other human interference. The parties must forward information on such changes without delay to the organization or government agency responsible for the continuing *Ramsar Convention* administration duties.

Canada ratified and became a party to this treaty in 1981, and currently has thirty-seven Ramsar sites. These Ramsar sites cover a surface area of over 13 million hectares, seventeen of which are National Wildlife Areas or Migratory Bird Sanctuaries, including the second-largest Ramsar site in the world in Queen Maud Gulf in Nunavut. The other Ramsar sites are designated as Provincial and National Parks.

The Canadian Wildlife Service (CWS) of Environment and Climate Change Canada is the administrative authority responsible for Ramsar sites. Its Wetlands Office in Ottawa verifies that the criteria for inclusion in the Ramsar List are satisfied before sending an application for site designation to the *Ramsar Convention* Secretariat.

Although no specific federal wetland protection legislation exists in Canada, two federal statutes refer to the *Ramsar Convention* in the context of conservation areas in Nunavut.[216] The treaty does not require listed sites to be formally designated as protected areas, though it does require the establishment of "nature reserves" on wetlands, whether or not they are included in the Ramsar List. In practice, Ramsar sites in Canada are designated as protected areas under domestic law. States must also "provide adequately for their wardening."[217]

Examples in British Columbia

There are three Ramsar sites in Canada: the Columbia Wetlands in the Columbia Valley, Creston Valley in the Kootenays, and the Fraser River Delta on the Pacific Coast. The Columbia Wetlands and Creston Valley are both protected as provincial Wildlife Management Areas.[218] The Fraser River Delta is the only coastal Ramsar site. Its protection is more tangled, and is the subject of Case Study 1 below.

CASE STUDY 1 Fraser River Delta: A bird's-eye view of a globally significant Ramsar site

The Fraser River, British Columbia's longest undammed river, flows over 1,600 kilometres from its headwaters in the Rocky Mountains to the Fraser River Delta at the mouth of the Fraser estuary. The Fraser estuary, which spreads across the Lower Mainland, alongside Delta, Richmond, Surrey, and Vancouver, is a globally significant area for millions of migratory birds, and a key part of Canada's most important and longest wild salmon migratory route. Hundreds of millions of British Columbia's salmon spend time rearing in the estuary on their journey from the river to the open ocean.[219] The Indigenous peoples of the Lower Fraser have occupied the region for thousands of years, and continue to practise their culture and exercise their laws.

The Fraser estuary has been described as "a remarkable natural treasure that deserves the highest level of protection a government can provide."[220] Although industrial, commercial, and urban development pressures continue to threaten the Fraser River Delta, there is also some degree of interjurisdictional collaboration. This includes the layering of multiple international, national, and provincial designations for marine and coastal spatial protection, particularly protection of bird habitat.

International designations

The Fraser River Delta has been given several international protected area designations, including:

- **Ramsar Wetland of International Significance.** A portion of the Fraser River Delta was first designated as the Alaksen Ramsar Site in 1982 under the *Ramsar Convention*. In 2012, the total area of the Ramsar site was expanded from 586 to 20,682 hectares, to encompass Burns Bog, Sturgeon Bank, South Arm Marshes, Boundary Bay, Serpentine, the former Alaksen Ramsar Site, and the George C. Reifel Migratory Bird Sanctuary. The entire area was renamed the Fraser River Delta Ramsar Site.[221] Conservationists report that the designation of the larger Fraser River Delta area took forty years to achieve.[222] The British Columbia Waterfowl Society manages the Reifel Migratory Bird Sanctuary, and promotes public awareness of wetland values. The Fraser River Delta's management plan for the purposes

of the *Ramsar Convention* and its guidance on this topic[223] is an amalgam of plans prepared under other designations, as reported by Environment and Climate Change Canada to the Conference of the Parties to the Ramsar Convention on Wetlands. In order to obtain the Ramsar site designation, it was necessary for federal, provincial, and local governments to implement a range of spatial protection designations. While the Ramsar site designation itself does not confer protection, it appears to have catalyzed protection in Canadian law.

- **Important Bird and Biodiversity Area.** The Fraser River Delta is the most significant Important Bird and Biodiverity Area (IBA) site in Canada.[224] This is not a legal designation, but it provides persuasive weight to decision-makers.
- **Western Hemisphere Shorebird Reserve Network Site of Hemispheric Importance.** The Fraser River Delta is of one of only eight such sites in the world.

Federal, provincial, and local government designations

The Fraser River Delta has further federal, provincial, and local government designations, which governments have put in place individually or jointly.

- Federal designations in the Fraser River Delta include the Alaksen National Wildlife Area (NWA) under the *Canada Wildlife Act* and the George C. Reifel Migratory Bird Sanctuary under the *Migratory Birds Convention Act, 1994*.[225] Non-governmental organizations (NGOs) have proposed enlargement of the existing NWA to include the seaward side of the Fraser River Delta wetlands to better protect the "five million birds travelling the ancient migratory Pacific Flyway from the Arctic to Southern and Central America [who] break their journey only once on Canadian soil."[226]
- There are four provincial Wildlife Management Areas in the Fraser River Delta under the BC *Wildlife Act*: Sturgeon Bank, South Arm Marshes, Boundary Bay, and Roberts Bank.[227]
- The federal and provincial governments, Metro Vancouver, and the City of Delta jointly purchased land in the Fraser River Delta in order to designate the Burns Bog Ecological Conservancy Area.[228] The area is owned by British Columbia, Delta, and Metro Vancouver, and jointly managed by Metro Vancouver and the City of Delta.[229]

International transboundary bird conservation initiatives

A complex set of cross-border arrangements for bird conservation also provides direction and funding for the protection of the Fraser River Delta.

The first of these agreements is the North American Waterfowl Management Plan (NAWMP), a 1986 agreement between Canada and the United States, later joined by Mexico and substantially revised in 2012 and updated in 2018.[230] The plan identified partnerships as a key way to achieve its objectives, and numerous Migratory Bird Joint Ventures were formed as a result. In 1991, the Pacific Coast Joint Venture was formed with a goal of ensuring that wild birds thrive.[231]

The North American Bird Conservation Initiative (NABCI) agreement was signed in 2005. This partnership between Environment and Climate Change Canada, provincial and territorial wildlife directors, environmental NGOs, and industry also coordinates the implementation of bird conservation throughout North America with the United States and Mexico.[232]

Unlike its North American partners, Canada has no national wetlands conservation law. It relies instead on the North American Wetlands Conservation Council (Canada), which seeks to influence related policies and laws for wetland conservation. Canada's wetlands conservation effort focuses primarily on non-regulatory approaches, relying on provincial land and wildlife management laws and federal laws of broad application, such as the fish habitat protection provisions in the federal *Fisheries Act.*

The US *North American Wetlands Conservation Act* (NAWCA) was enacted to set up a funding mechanism for the NAWMP's wetlands conservation programs and for migratory bird habitat protection.[233] This law provides essential funding and direction for bird conservation for the entire North American continent. NAWCA is the single largest source of US federal funds for habitat work. Grants to NAWCA projects in Canada totalled $1.93 billion from 1990 to 2012, with matching funds contributed by Canadian partners.[234]

A coastal wetland site in danger

Dredging, filling, shipping, log booming, dikes, docks, and roads have destroyed habitat, resulting in the loss of 70–90 percent of productive tidal wetlands in the Fraser River Delta.[235] The five most significant pressures are transportation infrastructure associated with marine shipping, urban development, conversion of agricultural fields to greenhouses, rise in sea level due to climate change, and invasive species.[236]

When the Fraser River Delta Ramsar site was expanded in 2012, a key wetland area slated for port expansion called Roberts Bank was omitted. This has been called a "glaring example of failing to incorporate the entire ecosystem of importance to migratory birds."[237] NGOs have declared the Fraser River Delta an "IBA in Danger" due to industrial pressure and the proposed container port expansion project.[238] "Less than 30 per cent of the estuary's historic wetlands remain, and dozens of its species – from salmon to shorebirds – are under threat, making the region one of the most imperilled ecosystems on the continent, a bright red spot on BirdLife International's global map of critically endangered sites."[239]

The Impact Assessment Agency of Canada (IAA) has assessed the environmental effects of the proposed Roberts Bank Terminal 2 port expansion and concluded that the project would have numerous adverse environmental impacts.[240] Environment and Climate Change Canada scientists have also concluded that "[p]roject-induced changes to Roberts Bank constitute an unmitigable species-level risk to western sandpipers, and shorebirds more generally," although this report was not provided to the IAA.[241] At the time of writing, Governor in Council has not made a final decision on this project.

Strengths of Ramsar Sites

Similar to the other international designations reviewed in this chapter, designation as a Ramsar site results in a higher local and international profile for an area. The *Ramsar Convention* requires parties to maintain the ecological character of each site, and this occurs through the implementation of a site management plan. There are consequences to deleting a site from the Ramsar List or reducing its size, as the convention states: "Where a Contracting Party in its urgent national interest, deletes or restricts the boundaries of a wetland included in the List, it should as far as possible compensate for any loss of wetland resources, and in particular it should create additional nature reserves for waterfowl and for the protection, either in the same area or elsewhere, of an adequate portion of the original habitat."[242]

Canada has prioritized wetlands conservation in its biodiversity strategies, including its 2020 Biodiversity Goals and Targets: "By 2020, Canada's wetlands are conserved or enhanced to sustain their ecosystem services through retention, restoration and management activities."[243] Ramsar sites

likely receive more domestic attention than other wetlands; for example, more funding can result from designation. Canada's 2015 report to the Ramsar Conference of the Parties notes several federal budget funding increases for wetlands that may have been influenced by their designation as Ramsar sites.[244]

There are also enforcement benefits associated with the *Ramsar Convention.* Where a Ramsar site's ecological character is threatened, the contracting party can request a Ramsar Advisory Mission, which consists of an investigative site visit by an expert team, and preparation of a report that can recommend restorative actions and may be a basis for financial assistance.[245] NGOs can also notify the Secretariat about negative changes to the ecological value of Ramsar sites.[246] Reports from the secretary general list the status of Ramsar sites for which human-induced negative changes in ecological character have been reported by third parties but not confirmed by the administrative authority. No Canadian sites are currently listed. There is also a Ramsar treaty procedure called the Montreux Record, a register of Ramsar sites "where changes in ecological character have occurred, are occurring, or are likely to occur as a result of technological developments, pollution or other human interference," similar to the *World Heritage Convention* List of World Heritage in Danger. NGOs can initiate the process of adding a site to the Montreux Record, but the contracting state party must permit Ramsar experts to do on-site inspections and must consent to a site's listing on the Montreux Record.[247] Parties are apparently not employing the Montreux Record as often as in the past, as no new entries have been registered since 2010.

Weaknesses of Ramsar Sites

Ramsar sites arguably have fewer direct conservation benefits than other international marine designations. The treaty neither prohibits nor regulates the taking of species for any purpose. It permits the "wise use" of sites, though such use must not affect the ecological characteristics of the wetland. The ambiguous term "wise use" has been a recurrent topic of discussion at the Conferences of the Parties.

The treaty has relatively little power to prevent marine wetlands conversion, and marine wetlands conservation continues to depend on strong domestic legal provisions and enforcement. Canada's 2015 report to the Conference of the Parties notes that wetlands conservation in Canada is under threat due to rapid development from urbanization, agricultural intensification, and industrial land-use change in southern regions of the

country and associated habitat loss and degradation of remnant ecosystems. The 2018 report reiterates the persistent threats to wetlands in Canada: "Development pressures on natural habitats in Southern Canada [cause] wetland loss, fragmentation, and degradation."[248]

As with other international designations, communication is a challenge. There are "limited human and financial resources across stakeholders who implement the Convention in Canada, in particular resources required to facilitate communication of the value of wetlands, and those needed to proactively manage Canada's wetlands."[249]

Canada notes additional problems with treaty implementation that are not necessarily related to the treaty itself: limited data to accurately assess the full extent of wetlands in Canada, especially in the northern regions, and lack of ongoing monitoring programs to track status and trends of all classes of wetlands and key aspects of the ecological goods and services that they provide; limited financial resources and capacity relating to the implementation of the *Ramsar Convention* across Canada; challenges in communicating the values and roles of wetlands to the public to increase and support responsible management, use, and conservation of wetlands; and challenges with the management of Ramsar sites related to biophysical factors such as changing water levels and spread of invasive alien species.[250]

International Maritime Organization Shipping Designations

The IMO's area-based management tools to protect maritime areas arise principally out of the *International Convention for the Safety of Life at Sea* (SOLAS) and *International Convention for the Prevention of Pollution from Ships* (MARPOL). They include routeing measures such as Areas to Be Avoided (ATBAs) and Traffic Separation Schemes (TSSs) (both of which are discussed below), as well as No Anchoring Areas, traffic lanes, separation zones or lines, roundabouts, inshore traffic zones, recommended routes, deepwater routes, and precautionary areas, under SOLAS and restricted-discharge Special Areas and Emission Control Areas under MARPOL. The IMO may also designate Particularly Sensitive Sea Areas (PSSAs), a non-binding designation.

Particularly Sensitive Sea Areas and Associated Protective Measures

A Particularly Sensitive Sea Area (PSSA) is a "soft law" designation created by a non-binding IMO Assembly resolution. It is defined as "an area that needs special protection through action by IMO because of its significance for recognized ecological or socio-economic or scientific reasons and which

may be vulnerable to damage by international maritime activities.[251] The IMO revised its guidelines on PSSAs in 2005.[252]

There are currently seventeen PSSAs around the world. Some of the best-known marine areas in the world are designated as such: the Great Barrier Reef, Galapagos Archipelago, Canary Islands, Florida Keys, Papahānaumokuākea Marine National Monument (in the Northwestern Hawaiian Islands), and Saba Bank (in the Caribbean).[253]

Only the federal government has the authority to initiate a PSSA designation.[254] A member state of the IMO applying for such a designation must demonstrate that the area meets three requirements:

1 The area must meet one or more of the ecological, social, cultural, and economic, or scientific and educational criteria listed in section 4 of the Revised PSAA Guidelines. Ecological criteria include uniqueness or rarity, critical habitat, dependency, representativeness, diversity, productivity, spawning or breeding grounds, naturalness, integrity, fragility, and biogeographic importance. Social, cultural, and economic criteria are social or economic dependency, human dependency, and cultural heritage. Scientific and educational criteria include research, baseline for monitoring studies, and education. A proposed PSSA will usually meet more than one of these criteria.
2 The area must be vulnerable to damage by international shipping, considering the characteristics of vessel traffic such as the nature of the harmful substances carried or the presence of small fishing or pleasure boats; the hydrographic, oceanographic, and meteorological natural factors; and other information, such as any history of groundings, collisions, or spills in the area and any consequences of such incidents.
3 There must be a protective measure with an identified legal basis that can be adopted by the IMO to prevent, reduce, or eliminate risks from international shipping activities.[255] The legal basis for a protective measure may be found in an existing IMO instrument or may be created through the amendment of an IMO instrument or adoption of a new IMO instrument.[256]

PSSA status by itself does not restrict shipping. A PSSA designation confers no direct regulatory restrictions or benefits. Rather, it marks an area that is recognized internationally as requiring special attention to potential harm from shipping activities. The Revised PSSA Guidelines establish Associated Protective Measures (APM) that provide the actual legal basis

for restrictions on shipping. At the time of PSSA designation, an APM must have been approved or adopted by the IMO to prevent, reduce, or eliminate the threat or identified vulnerability.[257] Protective measures include routeing measures such as labelling all or part of the PSSA as an Area to Be Avoided, a No Anchoring Area, or a restricted-discharge Special Area.[258] An APM may already have been approved before the time of the PSSA application, and may be cited in support of the application.

There are no PSSAs in British Columbia or in Canada. However, the designation has been suggested in at least two instances: the BC Chamber of Shipping has proposed a PSSA as an alternative to the area in northern British Columbia covered by the federal *Oil Tanker Moratorium Act*; and the Friends of the San Juans have proposed the Salish Sea/Puget Sound as a PSSA. Neither proposal has been adopted by Canada as a state sponsor.

Areas to Be Avoided

Two IMO instruments provide for the establishment of ATBAs: the *General Provisions on Ships' Routeing* resolution[259] and the *International Convention for the Safety of Life at Sea Convention* of 1974.[260] SOLAS provides jurisdiction for routeing ships for environmental purposes.

The IMO defines ATBAs as "a routeing measure comprising an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all ships, or certain classes of ships."[261] The purpose of an ATBA is to recommend or require that all or certain classes of ships steer clear of an area, so this designation protects an area of marine space from the impacts of ship traffic. ATBAs are often established as part of a PSSA designation as one of the APMs, though they can be established independently of PSSAs.

ATBAs can be voluntary or, more rarely, mandatory. ATBAs "shall not be regarded as prohibited areas unless specifically so stated."[262] If seeking a mandatory routeing measure, the state must show that it is justified, and limited to what is essential to protect the marine environment. The state must also explain whether ports and harbours of coastal states would be adversely affected by the mandatory measure.[263]

In general, ATBAs should be established only in places where: (1) there is an inadequate survey or provision of aids to navigation that may lead to the danger of stranding; (2) local knowledge is considered essential for safe passage; (3) there is the possibility that unacceptable damage to the environment could result from a casualty; and (4) there might be hazard to a vital aid to navigation.

No ATBA will be adopted without the agreement of the interested coastal states when the proposed ATBA may affect: (1) their rights and practices respecting exploitation of living and mineral resources; (2) the environment, traffic pattern, or established routeing systems in their territorial waters; or (3) demands for improvements or adjustments in the navigational aids or hydrographic surveys in the waters concerned.[264]

Only the federal government, as a state party to SOLAS, has the authority to initiate a proposal for an ATBA with the IMO.[265] Canada acts at the IMO through representatives of Transport Canada. A proposing state must show the need for the specific routeing measure (e.g., history of damage to marine environment), and why the routeing measure can reasonably be expected to significantly prevent or reduce risk of damage to the marine environment.[266] If a state proposes an ATBA, any part of which lies within its territorial sea, then the state needs to provide the full details of planned changes to aids to navigation, anchorage areas, or pilot boarding areas that are associated with the proposal. If the proposed ATBA lies outside the territorial sea of the proposing state, then the state is also required to submit all geodetic information relevant to the proposed area.[267]

There are no ATBAs in British Columbia. An example of an ATBA near the province is found around Alaska's Aleutian Islands, an area where shipping traffic has the potential to threaten environmental integrity.[268]

There is one IMO-adopted ATBA in the Roseway Basin in Atlantic Canada, an area in Canada's exclusive economic zone approximately twenty nautical miles south of Sable Island, Nova Scotia. The ATBA was implemented in 2008 to protect the endangered North Atlantic right whales that congregate within the area on a seasonal basis.[269] It is "the first ATBA designed and implemented specifically to reduce risk to an endangered species," and is considered precedent setting.[270] It has been very successful, resulting in significant voluntary compliance that reduced the risk of whale strikes.[271]

Traffic Separation Schemes

A Traffic Separation Scheme creates traffic lanes to separate opposing streams of traffic.[272] TSSs are intended to improve safety of navigation by reducing the risk of collision in high-traffic areas, but they can also serve conservation purposes. For example, modifications were introduced to a TSS in Cabo de Gata, Spain, first to improve safety of navigation, and second to enhance environmental protection adjacent to a coastal marine reserve.[273] A number of TSSs have been designated or modified to reduce the risk of

vessel strikes involving cetaceans. TSSs may also be introduced as a PSSA Associated Protective Measure.

Rule 10 of the *Convention on the International Regulations for Preventing Collisions at Sea, 1972* (COLREGs) provides rules for ships navigating TSSs that have been adopted by the IMO.[274] Rule 10 has been incorporated into Canadian law through the *Collision Regulations*.[275] There are currently five TSSs approved by the IMO in Canadian waters: (1) in the approaches to Chedabucto Bay; (2) in the Bay of Fundy and its approaches; (3) in the Strait of Juan de Fuca and its approaches; (4) in Haro Strait and Boundary Pass; and (5) in the Strait of Georgia.[276] The TSS in place in the Bay of Fundy has been modified to protect the endangered North Atlantic right whale. The TSS has been used to shift existing shipping lanes away from whale habitat in the Grand Manan Basin and reduce the risk of ship strikes. These shipping lanes are mandatory and have resulted in a reported 90 percent reduction in the risk of lethal vessel strikes in the area.[277]

TSSs have been recommended in BC waters in Broughton Strait, Johnstone Strait, and Vancouver and its approaches, but these have not been approved by the IMO.[278]

No Anchoring Areas

A No Anchoring Area is an area "where anchoring is hazardous or could result in unacceptable damage to the marine environment. Anchoring in a no anchoring area should be avoided by all ships or certain classes of ships, except in cases of immediate danger to the ship or the persons onboard."[279] There are no such designated areas in British Columbia.

TEXT BOX 4

Georgia Strait traffic separation scheme

The TSS in the Strait of Georgia was first proposed to the IMO in a joint application by Canada and the United States.[280] The proposal was adopted by the IMO in 2002. The Georgia Strait TSS contains two traffic lanes, one for ships heading southeast and one for ships heading northwest. The traffic lanes are separated by a separation zone. COLREGs Rule 10(b)(ii) states that vessels shall "so far as practicable keep clear of ... [a] separation zone."[281] In addition, there are two precautionary areas where ships must navigate with particular caution.[282]

Strengths of IMO Shipping Designations

Wide compliance is the greatest strength of all IMO measures, as they are the globally accepted method to regulate shipping traffic. IMO member states are required to comply with the protective measures that accompany PSSAs, and ships respect IMO designations identified on international shipping charts.[283] ATBAs and other routeing measures that protect shipping corridors have benefits similar to those of PSSAs.

International enforcement reinforces domestic enforcement. If the IMO approves a protective measure, IMO member states are obligated to take "all appropriate steps" to make sure ships flying their flags comply with the protective measure.[284] Similarly, IMO member states "shall do everything in their power to secure the appropriate use of ships' routeing systems adopted by the IMO."[285] An ATBA imposes obligations on all parties to SOLAS to adhere to the ATBA's routeing measures, and also provides for flexibility to ignore the measure if needed, as vessels may derogate from obligations concerning ATBAs if there are "compelling reasons" not to comply with them.[286]

The rigorous application process for obtaining IMO designations is also a strength. For example, conducting the assessment required to obtain a PSSA designation entails amassing a wealth of information related to the PSSA criteria. The process identifies the proposed PSSA marine area's vulnerability to damage from shipping activities, and analyzes which IMO measures can be used to respond to the identified vulnerability. National governments can then use this information in MPA identification, marine spatial planning, and legislative and policy revisions, whether or not the PSSA proposal proceeds.

Routeing measures such as Traffic Separation Schemes provide spatial protection in shipping corridors and traffic lanes. Despite their limited spatial extent, these measures can significantly reduce ship strikes, a major threat to whales, by modifying ship routes away from sensitive habitat, or by imposing temporal or seasonal restrictions on shipping in this habitat. The IMO has modified shipping routes to avoid ship strikes to whales and otherwise minimize impacts in a number of instances over the past decade.[287] Moreover, routeing measures can limit other activities harmful to marine areas. Article 3.10 of the *General Provisions on Ships' Routeing* recommends that governments "ensure, as far as practicable, that oil rigs, platforms and other similar structures are not established within routeing systems adopted by IMO or near their terminations."[288]

The diversity of IMO tools is another strength. PSSAs are arguably a more efficient way to comprehensively set global shipping rules for a sensitive

marine area, since a suite of APMs can be adopted as a package when a PSSA is designated, rather than individual designation procedures being pursued for one or more APMs in the area, each of which requires separate IMO approval. However, establishing an ATBA or putting in place another IMO routeing measure is quicker and easier than securing a PSSA designation, and an ATBA designation may be equally effective, as it will discourage or prohibit all or certain classes of ships from entering an area.

Finally, IMO spatial designation confers global status, as many of the world's most iconic marine areas have established routeing measures and/or are designated as PSSAs.

Weaknesses of IMO Shipping Designations

A major weakness of all IMO designations is their limited ambit. They cannot provide comprehensive ecosystem protection as they relate to impacts from only one marine activity, shipping, particularly pollution from marine shipping, and so cannot guard against other threats to the marine environment, such as land-based sources of pollution, climate change impacts, ocean acidification, habitat degradation from development in coastal areas or at sea, or overexploitation of marine species. Ultimately, routeing measures are primarily concerned with the safety of ships and not with conservation goals. Routeing measures cover only a narrow corridor of a ship's route. PSSAs cover larger areas and have a more concentrated focus on protection due to a marine area's "particular significance," yet they remain constrained by their single-sector scope of influence.

As with other international designations, the process of acquiring the spatial protection can be fraught with challenges. Even with the necessary political will and expenditure of political capital domestically, building public support for an IMO designation, assembling the information package, and positioning an application to move forward on the international stage can take many years. Support for an IMO designation may be difficult to obtain from other states, and may require political trade-offs. PSSA approval, for example, will take at least two to five years after an application is received at the IMO, so delays may negatively affect the area while shipping continues as usual.

There has been some criticism of the manner in which the IMO assesses and designates PSSAs: "The process to date has been somewhat ad hoc, subject to political interference from proposing States and lacking a robust technical evaluation due to the highly variable nature of the Technical Group

tasked with assessing each proposal."[289] Similarly, establishing an ATBA is a political process and requires support from other states and adoption by the IMO. There are stringent requirements to prove the need for the designation of a voluntary ATBA. Even more information and persuasion are required to convince state members of the IMO to approve a mandatory ATBA. The legacy of the historical concept of the "freedom of the high seas" lingers, and the recognition by the shipping sector and shipping states of the need to balance this concept with global conservation goals is slow to materialize.

Some experts question the utility of a PSSA. For example, one assessment of PSSAs after fifteen years of experience noted that their effectiveness remained very limited.[290] Perhaps to avoid these limitations, some states opt to pursue APMs alone instead of the larger and more comprehensive PSSA. A recent example comes from the United States, which decided to pursue ATBAs rather than a PSSA for the Aleutian Islands. If the same level of protection can be achieved by applying the relevant routeing measure, then a state may not want to invest in the extra work required to put a PSSA in place.

VOLUNTARY INTERNATIONAL MARINE CONSERVATION DESIGNATIONS

Deciding which areas need more stringent protection from human activities than the general landscape or seascape is a challenging task. Scientists and policy-makers have developed many tools and concepts to assist with the prioritization of area-based protections. Classifying an area according to scientific criteria and assigning it a voluntary internationally recognized designation can assist with further protection efforts.[291] Table 5 summarizes the international voluntary designations for coastal and marine protection.

UNESCO Biosphere Reserve

A biosphere reserve, known as a "biosphere region" in Canada, is a unique international designation. Bisophere reserves are designed to integrate conservation of biodiversity and cultural diversity, sustainable development, and research and education within an area. Biosphere reserves are large-scale sites that contribute to the implementation of the Sustainable Development Goals (SDGs) at the community level.[292]

TABLE 5 International law: Voluntary designations for coastal and marine protection

Designations	Instruments	Organizations	Description	Number of designations		
				World	Canada	BC
Biosphere reserves	*Statutory framework of the World Network of Biosphere Reserves*	UNESCO	Areas of terrestrial, coastal, and marine ecosystems that promote conservation and sustainable use.	738	19	2
Ecologically and biologically significant areas	CBD scientific criteria for ecologically or biologically significant areas (Annex I, Decision IX/20)	*Convention on Biological Diversity*	Areas identified through scientific assessments as having special biological or ecological significance.	321	200	85
Important bird and biodiversity areas	Global IBA criterial list	Birdlife International	Sites that significantly contribute to global bird biodiversity.	13,000	600	85
Important marine mammal areas	Guidance on the use of selection criteria for the identification of important marine mammal areas (2018)	Marine Mammals Protected Areas Task Force	Discrete areas of habitat that are important to marine mammals and have the potential to be identified and managed for conservation.	209	0	0
Indigenous conserved and communities areas	Voluntary international protection and conservation designations	ICCA Consortium	Territories and areas conserved by Indigenous peoples and local communities.	NA	NA	NA

IUCN green list of protected and conserved areas	IUCN green list of protected and conserved areas standard (2017)	International Union for the Conservation of Nature	Certification program for protected and conserved areas that are effectively managed and fairly governed.	61	0	0
Key biodiversity areas	Global standard for the identification of key biodiversity areas (IUCN 2016)	International Union for the Conservation of Nature	Sites that significantly contribute to global biodiversity.	16,336	331	48
No anchoring areas	*International Convention for the Safety of Life at Sea*	International Maritime Organization	Areas where anchoring is hazardous or could result in unacceptable damage to the marine environment.	2+	0	0
Other effective area-based conservation measures	Recognizing and reporting other effective area-based conservation measures (IUCN 2019)	International Union for the Conservation of Nature	Areas that deliver effective, long-term conservation of biodiversity, and/or cultural and spiritual values, but are not recognized as protected areas.	NA	34	2

NA = Not applicable.

A task force of UNESCO's Man and the Biosphere Programme (MAB) developed the concept of biosphere reserves in 1974, with the aim of providing a scientific basis to enhance the relationship between humans and the environment.[293] UNESCO later produced a statutory framework to govern this internationally recognized designation that can protect both terrestrial and marine areas.[294] No treaty governs the creation of biosphere reserves.

The Statutory Framework of the World Network of Biosphere Reserves was adopted at a 1995 UNESCO biosphere conference. It serves as the soft legal framework for the formal recognition of biosphere reserves, and lists seven qualifying criteria for designation.[295] UNESCO has also developed Technical Guidance for Biosphere Reserves, which supports the implementation of the Statutory Framework.[296]

The framework states that the purpose of a UN biosphere reserve is to protect an ecologically important terrestrial or marine area against harm, and to achieve the three interconnected functions of biodiversity conservation, sustainable development, and logistical support.[297] A biosphere reserve must be of an appropriate size to serve these three functions.

The Statutory Framework defines biosphere reserves as "areas of terrestrial and coastal/marine ecosystems or a combination thereof, which are internationally recognised within the framework of the MAB." The UNESCO website provides a more descriptive definition: "Biosphere reserves are 'Science for Sustainability support sites' – special places for testing interdisciplinary approaches to understanding and managing changes and interactions between social and ecological systems, including conflict prevention and management of biodiversity." The Howe Sound Biosphere Region Initiative in British Columbia uses this definition: "Biosphere Regions are models for sustainable development, implementing the United Nations Sustainable Development Goals through collaboration and engagement across communities and sectors."

The World Network of Biosphere Reserves is composed of 738 biosphere reserves in 134 countries.[298] Canada hosts 19 biosphere reserves and has played a lead role in the development of the designation, as the first country to establish national procedures and nomination processes for biosphere reserves that were subsequently adopted elsewhere.[299]

The federal government nominates biosphere reserve sites. UNESCO assesses the nomination and completes the designation after a review process. Canadian Heritage and Global Affairs Canada are the lead federal

agencies. The Canadian Commission for UNESCO, under the authority of the Canada Council for the Arts, coordinates the World Network of Biosphere Reserves in Canada together with the non-profit Canadian Biosphere Reserves Association.[300]

The Statutory Framework states that each reserve will have three zones: (1) a legally constituted core area or areas devoted to long-term protection according to the conservation objectives of the biosphere reserve and of sufficient size to meet these objectives, which is the only zone that requires legal protection by the proposing state; (2) a buffer zone or zones clearly identified and surrounding or contiguous with the core area or areas, where only activities compatible with the conservation objectives can take place; and (3) an outer transition area where sustainable resource management practices are promoted and developed.[301]

Examples in British Columbia

The following three biosphere reserves border or encompass the ocean in British Columbia:[302]

- *Átl'ka7tsem/Howe Sound Biosphere Region,* encompassing Átl'ka7tsem/Howe Sound watershed close to Vancouver, was designated in September 2021. The area is governed by the Howe Sound Biosphere Region Initiative and supported by the Squamish Nation and local governments within the Átl'ka7tsem/Howe Sound region. It is the first biosphere reserve in Canada to designate areas within the marine environment as part of its core protection zone.
- *Clayoquot Sound Biosphere Region* is on the west coast of Vancouver Island and comprises terrestrial and marine areas. It was designated in 2000. The Clayoquot Biosphere Trust (CBT) is the governing body for the biosphere reserve and provides funding and logistical support. The board of the trust includes representatives from the Hesquiaht First Nation, Ahousaht First Nation, Tla-o-qui-aht First Nations, Yuułu?iłʔatḥ Government, Toquaht Nation, District of Tofino, District of Ucluelet, and the Alberni-Clayoquot Regional District Area C, as well as two at-large directors. Non-voting board advisers are appointed by Environment and Climate Change Canada, Fisheries and Oceans Canada, Parks Canada, and the Province of British Columbia. Recent CBT initiatives include a regional food security project, production of a "Vital Signs" report for the region, and fundraising to create a Biosphere Centre in Tofino.

- *Mount Arrowsmith Biosphere Region* is a terrestrial area on the east coast of Vancouver Island. It was also designated in 2000. It is governed by a round table that includes representatives from Snaw-naw-as First Nation, Qualicum First Nation, Vancouver Island University, Mount Arrowsmith Biosphere Region Research Institute, City of Parksville, Town of Qualicum Beach, Parksville–Qualicum Beach Chamber of Commerce, Islands Trust, BC Ministry of Environment and Climate Change Strategy TimberWest Forest Corp, and Island Timberlands. Recent initiatives include a tree-planting project, planting of the Snaw-Naw-As Garden of Spiritual Healing, new programming that investigates traditional place names, and Indigenous language revitalization.

Strengths of Biosphere Reserves

As large-scale model sites, biosphere reserves encompass many core concepts of sustainability. The designation connotes a community's desire to promote harmony between people and nature, act as a learning site, and stimulate research and monitoring. Reserves are designed to protect biological diversity, and can help resolve land- and marine-use conflicts by providing a forum for dispute resolution. Participation in biosphere reserve networks gives residents access to information, expertise, support, and funding. Biosphere reserves provide a platform for stakeholder cooperation and consensus building due to their multi-sectoral governance structures. Designation will raise awareness among residents and all orders of government about the environmental and development issues facing a reserve area. In short, if they achieve their goals, "Canada's UNESCO biosphere reserves ... are proof that a sustainable way of living is not only possible but already happening."[303]

A key feature is their focus on reconciliation with Indigenous peoples.[304] Several of the biosphere reserves in Canada have produced "Reconciliation in Action" reports.[305] All three of BC's biosphere reserves have relationships with Indigenous nations and include Indigenous representatives on their governance bodies.

Biosphere reserves focus on the environment, the economy, and society, the three interlinked aspects of sustainability. Many reserves adopt plans for sustainable economic development and rural and community revitalization, and emphasize the importance of projects that enhance people's livelihoods. They foster ecosystem-based management, as each proposal for a new reserve includes a domestic management plan and identifies authorities or

mechanisms to implement the plan. Sustainable economic activity is a feature of biosphere reserves. They provide a "brand name" to improve local economies, including tourism possibilities. "Amazing Places" is a sustainable tourism brand developed by and for Canada's UNESCO biosphere reserves, and both reserves in British Columbia have tourism programs.

UNESCO requires reviews of biosphere reserves every ten years, providing accountability and an opportunity for the governing body to reflect on and document achievement of the reserve's objectives.

Weaknesses of Biosphere Reserves

While a biosphere reserve is an important symbolic designation, it neither requires nor confers a significant amount of legal protection to maintain its status. Only the core zone must be legally protected through domestic legislation and enforcement. The designation does not affect the existing powers, rights, and responsibilities of governments, businesses, and landowners, so business as usual is possible after designation. In practice, this has meant that over 80 percent of the total area of biosphere reserves designated worldwide lie outside of legally protected areas.[306]

The designation process is long: it can take an average of eight years to prepare an application for a nomination, and another one to two years to be designated in Canada. The end result of designation depends on the willingness of the host governments to extend legal protection to the site.

Biosphere reserves are not well funded by governments, leading to disruption in operations. The Mount Arrowsmith Biosphere Region was initially coordinated through the Mount Arrowsmith Biosphere Foundation, but the foundation was dissolved. Fortunately, Vancouver Island University (VIU) and the City of Parksville assumed responsibility for managing this biosphere reserve, and VIU conducts a suite of research initiatives in the reserve. Clayoquot is the only biosphere reserve with an endowment from the federal government and, to date, the only biosphere reserve structured as a trust.

Complex biosphere reserve governance structures can cause difficulties. For example, the Clayoquot Biosphere Trust board of directors is made up of ten directors, and four *ex officio* as well as five local advisory committees. The first periodic review of the Clayoquot Biosphere Trust noted that evolving governance institutions entailed delays, occasional setbacks, and conflicting ideas about what the designation meant and the role, purpose, activities, and priorities of the trust.[307]

Convention on Biological Diversity Designations

Ecologically and Biologically Significant Areas

Ecologically and Biologically Significant Areas are areas within the oceans that have been identified through formal scientific assessments as having special biological or ecological significance compared with the surrounding marine ecosystem. The EBSA designation is a *Convention on Biological Diversity* initiative, and all 196 parties to the convention have agreed upon a process and adopted scientific criteria to identify EBSAs.

EBSAs are defined as "geographically or oceanographically discrete areas that provide important services to one or more species/populations of an ecosystem or to the ecosystem as a whole, compared to other surrounding areas or areas of similar ecological characteristics, or otherwise meet the [EBSA] criteria."[308] The following criteria are used to assess EBSAs:

- uniqueness or rarity
- special importance for life history stages of species
- importance for threatened, endangered, or declining species and/or habitats
- vulnerability
- fragility, sensitivity, or slow recovery
- biological productivity
- biological diversity
- naturalness.

EBSAs are "strictly a scientific and technical exercise" and not meant to have "economic or legal implications."[309] However, they may be used not to inform the decisions of national governments about protection measures as well as the positions of states acting in other fora, such as the IMO, when assessing the impacts of threats from shipping on specific EBSA features.[310]

The CBD Secretariat organizes regional workshops to assess EBSAs, and the sites identified by each workshop are included in the CBD online EBSA repository. The CBD North Pacific Ocean regional workshop identified EBSAs, including the Northeast Pacific Ocean seamounts, in international waters.[311]

Canada did not consent to have its waters included in the geographical scope of the CBD regional workshops, though it has endorsed the CBD scientific criteria for identifying EBSAs and participates in CBD processes related to EBSAs.[312] Canada has its own peer-reviewed process to identify

EBSAs, which it developed before the CBD process.[313] Under this process, Fisheries and Oceans Canada has identified approximately 236 EBSAs in Canadian waters.[314]

DFO has identified EBSAs for all four of its BC marine bioregions – Northern Shelf, Offshore Pacific, Southern Shelf, and Strait of Georgia – to use as part of the knowledge base in regional development and marine spatial planning initiatives; in MPA and MPA network planning; and in implementing DFO's Sustainable Fisheries Framework.[315] Marine planners and regulators use the DFO EBSA information as one layer of information to consider when designing MPAs and MPA networks. However, protected areas designated under the *Oceans Act* or the *Canada National Marine Conservation Areas Act* do not need to first be identified as an EBSA.[316]

Other Effective Area-Based Conservation Measures

Aichi Target 11 calls for "at least 17 per cent of terrestrial and inland water areas and 10 per cent of coastal and marine areas" to be conserved by way of "well-connected systems of protected areas and other effective area-based conservation measures" (OECMs). Canada has adopted the term "OECM" to refer areas that contribute to Canada's marine conservation targets but are not protected areas (see "Other Effective Area-Based Conservation Measures" in Chapter 3).

International Union for Conservation of Nature Designations

The IUCN is composed of 1,400 government and non-governmental organization members, with a mission to "influence, encourage and assist societies throughout the world to conserve nature and to ensure that any use of natural resources is equitable and ecologically sustainable."[317] It has a headquarters and staff as well as six IUCN commissions involving 16,000 volunteer experts from a range of disciplines who provide research and policy advice on conservation issues.

The Canadian federal government is a member of the IUCN and votes on resolutions at its World Conservation Congress, which is held every four years. While IUCN resolutions are not legally binding, they influence national conservation policies and laws, and international treaty-related processes such as those in the CBD.

The IUCN is a particularly important source of non-binding international guidance on protected areas, through resolutions, reports from working groups convened to address specific topics (such as guidelines on

OECMs), and the publication of guidelines that apply to all types of protected areas and those that apply in particular to marine protected areas.

IUCN Green List of Protected and Conserved Areas

The Green List is a global standard of best practice in area-based conservation developed by the IUCN. It certifies natural sites that are effectively managed and fairly governed.

Key Biodiversity Areas

Key Biodiversity Areas (KBA) are "sites contributing significantly to the global persistence of biodiversity" in terrestrial, freshwater, and marine ecosystems that states identify through the application of the IUCN's Global Standard for the Identification of Key Biodiversity Areas.[318] The KBA website explains: "Sites qualify as global KBAs if they meet one or more of 11 criteria, clustered into five categories: threatened biodiversity; geographically restricted biodiversity; ecological integrity; biological processes; and, irreplaceability." KBAs can be used as part of the evidence base to expand protected area networks, to inform the private sector's development of safeguard and eco-certification policies, and to provide local and Indigenous communities with a variety of benefits such as employment, recognition, economic investment, and community well-being.

Important Bird and Biodiversity Areas

Important Bird and Biodiversity Areas (IBAs) are IUCN Key Biodiversity Areas identified for birds using internationally agreed upon, standardized criteria applied locally by BirdLife International. The criteria use the occurrence of key bird species that are vulnerable to global extinction or whose populations are otherwise irreplaceable. In 2012, BirdLife International published the first Marine Important Bird and Biodiversity Area "e-atlas," with details of 3,000 IBAs in coastal and territorial waters as well as on the high seas.[319]

Important Marine Mammal Areas

Important Marine Mammal Areas (IMMAs) are discrete portions of habitat, important to marine mammal species, that have the potential to be delineated and managed for conservation. They consist of areas that may merit place-based protection and/or monitoring. The IUCN's Marine Mammal Protected Areas Task Force notes a number of rationales for developing IMMAs, such as the specific vulnerability of many marine mammals; the

TEXT BOX 5

IUCN protected area categories

In 2008, the IUCN World Commission on Protected Areas (WCPA) published guidelines that identify six protected area management categories (IUCN categories I–VI). Each category corresponds to a management objective. Biodiversity conservation has a greater management priority in categories I–IV, while categories V and VI allow multiple uses and entail fewer restrictions on activities. In order for an area to qualify as a protected area or MPA, nature conservation must be the main objective of management of the site.

Category	Description
Ia	Strict Nature Reserve: Protected area managed mainly for science
Ib	Wilderness Area: Protected area managed mainly for wilderness protection
II	National Park: Protected area managed mainly for ecosystem protection and recreation
III	Natural Monument: Protected area managed mainly for conservation of specific natural features
IV	Habitat/Species Management Area: Protected area managed mainly for conservation through management intervention
V	Protected Landscape/Seascape: Protected area managed mainly for landscape/seascape conservation and recreation

Despite the fact that IUCN guidelines are not legally binding, they are influential in British Columbia and in Canada. Each of the zones in the BC–First Nations Marine Plan Partnership for the North Pacific Coast has a recommended IUCN category. Canada's National Advisory Panel on MPA Standards was directed to offer recommendations on categories and associated protection standards for federal MPAs using IUCN guidlines as a baseline. The panel's 2018 final report found that there were major advantages to following the IUCN management categories and guidelines as the basis for a Canadian system.[320]

fact that marine mammals have been overlooked by many national efforts to create MPAs; the role of marine mammals as indicators to support the identification of MPAs and spatial protection measures, because they are more easily monitored than most other pelagic vertebrates; the role of marine mammals as umbrella species, which helps ensure that a properly designed conservation plan will be beneficial to the broader ecosystem; and the role of marine mammals as flagship species representing powerful political and public levers for the conservation of less popular or well-known organisms, communities, or habitats.

Indigenous and Community Conserved Areas

Indigenous and Community Conserved Areas (ICCAs) are territories and areas conserved by Indigenous peoples and local communities. They achieve conservation of species and the natural environment, together with other social and cultural objectives.[321]

For more details on ICCAs, see Chapter 5.

UN Food and Agriculture Organization

Vulnerable Marine Ecosystems

The term "Vulnerable Marine Ecosystem" (VME) emerged from discussions at the UN General Assembly, and the concept has been clarified through reports and resolutions of the General Assembly as well as the *International Guidelines for the Management of Deep-Sea Fisheries in the High Seas* developed by the UN Food and Agriculture Organization, which contains detailed guidelines on identifying VMEs.[322] The FAO describes VMEs as "groups of species, communities or habitats that may be vulnerable to impacts from fishing activities. The vulnerability of an ecosystem is related to the vulnerability of its constituent population, communities or habitats."[323]

The FAO's VME guidelines help national governments and intergovernmental organizations identify and map VMEs and use management measures such as fisheries closures to address issues in deep-sea fisheries. The FAO maintains a database of VMEs on the high seas.

Canada uses the term "VME" to refer to sensitive marine ecosystems outside the territorial limits of Canadian waters, and the term "Sensitive Benthic Areas" to refer to these areas within Canadian territorial limits.[324] Coldwater corals and sponges are Canadian examples of VMEs.

3
FEDERAL LAW

THE CANADIAN GOVERNMENT'S first Oceans Strategy, released in 1987, was an attempt to unify oceans policy.[325] It took another ten years before the federal *Oceans Act* came into force. At the time, the act was considered "the most significant and hopeful development in Canadian coastal and ocean management."[326]

Some protective fisheries management measures followed, such as stricter catch quotas and new and significant groundfish fisheries closures, but progress on comprehensive marine protected areas (MPAs) stalled. In 2015, less than 1 percent of Canada's ocean was under area-based protection, compared with 10.6 percent of Canada's terrestrial area,[327] and most of these marine areas were protected as part of coastal terrestrial parks. The sluggish pace of marine protection in Canada mirrors a pattern internationally of countries protecting terrestrial areas at a far greater pace than marine areas.

This changed dramatically in 2015, when the Liberal Party took power, and Prime Minister Justin Trudeau issued a mandate letter to the Minister of Fisheries and Oceans that included a promise to protect 5 percent of Canada's ocean by 2017 and 10 percent by 2020.[328] These commitments were a spur to action, and the federal government met and then exceeded this target by protecting 13.81 percent of the ocean by August 2019.[329] The Liberals were re-elected as a minority government in October 2019, and committed to a new target of protecting 25 percent of the ocean by 2025,

TABLE 6 Federal authorities with ocean mandates

Responsible authority	Mandates
Fisheries and Oceans Canada	Fisheries and aquaculture management Protecting ocean and freshwater ecosystems Safe marine navigation Response to maritime safety incidents and environmental emergencies
Environment and Climate Change Canada	Minimizing the threats of pollution Conserving the natural environment Balancing the environment and the economy Canada Wildlife Service: Protecting and managing migratory birds, species at risk, and their nationally important habitats
Parks Canada	Protecting nationally significant examples of Canada's natural and cultural heritage Public education and enjoyment of these areas, for present and future generations
Transport Canada	Promoting transportation policies and programs in Canada that are safe, secure, environmentally responsible, and efficient

with the goal of "working toward 30 per cent by 2030."[330] Table 6 outlines the federal government agencies with oceans mandates.

Most of Canada's protected marine areas are administered by the federal government, consistent with its broad jurisdiction over Canada's ocean estate. Three different federal organizations are primarily responsible for marine protected areas: Parks Canada; Environment and Climate Change Canada (ECCC), including the Canadian Wildlife Service (CWS); and Fisheries and Oceans Canada (DFO).[331] Their work is linked through the Federal Marine Protected Area Strategy, which is coordinated by DFO.[332] In addition, given DFO's jurisdiction over fisheries, the department is always involved in some capacity in the designation of any type of federal MPA.

Other federal departments govern or influence activities in marine areas. Transport Canada regulates shipping and its impacts within the ocean. Natural Resources Canada is responsible for oil and gas in offshore areas. In Newfoundland and Labrador and Nova Scotia, this responsibility is shared jointly with the provinces through two offshore petroleum boards. The Canada Energy Regulator also plays a role, assessing the impacts of energy projects on fish and fish habitat as well as on species at risk. Crown-

Indigenous Relations and Northern Affairs Canada is responsible for the relationship between Canada and Indigenous governments and for ocean management north of 60 degrees latitude.

The federal government also coordinates with other levels of government to manage other marine resources, such as aquaculture. The need for greater federal-provincial coordination is obvious in marine areas that are provincially protected, because federally regulated activities such as fisheries are often not restricted.

FEDERAL PROTECTED AREA DESIGNATIONS

There are two main types of federal legal designations that support ocean conservation: those that establish long-term, ecosystem-based protected areas, and those that establish shorter-term spatial measures that may be focused on a single species or activity but that nevertheless can contribute to conservation goals. The different designations, their enabling statues, and responsible authorities, and the number of such areas in BC, are outlined in Table 7 below.

The first section of this chapter focuses on protected areas designations. There are three primary tools: *Oceans Act* MPAs, national marine conservation areas, and marine national wildlife areas, administered by DFO, Parks Canada, and CWS-ECCC, respectively. CWS-ECCC also administers two other designations – national wildlife areas and migratory bird sanctuaries – which are long-term protected areas that sometimes have a marine component. Each of these designations has been used to protect key marine ecosystems in BC, and each has its own specific strengths and weaknesses.

Marine Protected Areas: *Oceans Act,* SC 1996, c 31 | Fisheries and Oceans Canada

Canada's *Oceans Act* entered into force on January 1, 1997. The act sets out Canada's jurisdiction over the ocean, enacts tools to spatially protect marine areas, and creates a framework for integrated oceans management through collaboration between different levels of government and government agencies. As the first integrated ocean management law in the world, the *Oceans Act* was a pioneering piece of legislation, and signalled Canada's intention to be a world leader in ocean policy.[333] The act has been updated once, in 2019, to create a ministerial order power to establish interim MPAs, introduce the precautionary principle, and strengthen enforcement, fines, and punishment provisions.[334]

TABLE 7 Federal legal designations for coastal and marine protection

Designations	Statutes	Responsible authorities	Designations in BC
Marine Protected Areas*	*Oceans Act*	Fisheries and Oceans Canada	3
National Marine Conservation Areas and Reserves*	*Canada National Marine Conservation Areas Act*	Parks Canada	1
National parks and reserves*	*Canada National Parks Act*	Parks Canada	3
National Wildlife Areas*	*Canada Wildlife Act*	Canada Wildlife Service	2
Marine national wildlife areas*	*Canada Wildlife Act*	Canada Wildlife Service	1
Migratory Bird Sanctuaries*	*Migratory Birds Convention Act*	Canada Wildlife Service	7
Fisheries closures	*Fisheries Act*	Fisheries and Oceans Canada	Not available
Marine refuges	*Fisheries Act*	Fisheries and Oceans Canada	2
Ecologically Significant Areas	*Fisheries Act*	Fisheries and Oceans Canada	0
Species at risk critical habitat orders	*Species at Risk Act*	Fisheries and Oceans Canada	2
Areas protected by shipping regulations	*Canada Shipping Act, 2001*	Transport Canada	5

* indicates long-term designation

An *Oceans Act* MPA may be designated in order to conserve and protect the following:

- fish, marine mammals, and their habitats
- endangered or threatened species and their habitats
- unique habitats
- areas of high biodiversity or biological productivity
- any other marine resource or habitat as necessary to fulfill the mandate of the Minister
- marine areas for the purpose of maintaining ecological integrity.[335]

MPAs can be designated in any part of Canada's ocean: inland waters, territorial sea, or exclusive economic zone.[336] The Minister may designate MPAs in three different ways under the act: by regulation, through an interim order, or through an emergency order. Almost all *Oceans Act* MPAs have been designated through regulation, described in more detail below.

The interim MPA designated by ministerial order power, which was introduced through legislative amendments in 2019, is valid for up to five years. An interim MPA by ministerial order freezes the footprint of existing activities in those areas for up to five years, while the consultation and designation process for the full *Oceans Act* MPA is underway.[337] It has been used once, to designate Tuvaijuittuq interim MPA.[338] The emergency MPA order power allows the Minister, with approval from the Governor in Council, to designate an emergency MPA in cases where the Minister believes that a marine resource or habitat is or is likely to be at risk. Emergency MPAs are valid for ninety days and are renewable, with no legislated limit on the number of times they may be renewed.[339] To date, this power has never been used.

Protection Standards

Every MPA regulation contains a blanket prohibition on activities that "disturb, damage, destroy or remove" marine organisms or their habitat. Following the prohibition is a list of exceptions for activities allowed within the MPA.

Exceptions vary by MPA, and may include scientific research, recreational fishing, commercial fishing, and navigation and shipping. Currently, for example, the Tarium Niryutait MPA in the Northwest Territories expressly allows oil and gas exploration as an exception.[340]

Exceptions may also vary within different zones in the MPA. For example, the Gully MPA east of Nova Scotia's Sable Island has three different management zones, including a core zone (Zone 1) where no extractive activities are permitted.[341] Similarly, Hecate Strait and Queen Charlotte Sound Glass

TEXT BOX 6

Protection Standards for Marine Protected Areas and other effective area-based conservation measures

In 2017, then Minister of Fisheries and Oceans Dominic LeBlanc launched a National Advisory Panel on Marine Protected Areas Standards to advise the government on different categories and protection standards for federal MPAs. After holding hearings across the country, the panel released its Final Report in 2018, in which it adopted several recommendations, including::

PS 1. That the government adopt International Union for the Conservation of Nature standards and guidelines for all marine protected areas, therefore prohibiting industrial activities, such as oil and gas exploration and exploitation, mining, dumping, and bottom trawling.

PS 2. When industrial activities are allowed to occur in areas counted as other effective area-based conservation measures, the Minister of Fisheries, Oceans and the Canadian Coast Guard must be satisfied through effective legislation or regulation that risks to intended biodiversity outcomes are avoided or mitigated.[343]

The Government of Canada responded to the panel's PS 1 recommendation in April 2019, when it committed to adopting protection standards that prohibit oil and gas activities, mining, dumping, and bottom trawling within all new federal MPAs in Canada.[344] The MPA protection standards applies to *Oceans Act* MPAs, National Marine Conservation Areas, Marine National Wildlife Areas, and the marine portions of Migratory Bird Sanctuaries and National Wildlife Areas.

The federal government also adopted the National Advisory Panel's recommendation under PS 2, stating that "activities within [other effective area-based conservation measures] will be assessed on a case-by-case basis and will be allowed if they are consistent with the conservation objectives of the specific area."[345] This protection standard applies to other effective area-based conservation measures, or OECMs, including marine refuges.

Sponge Reefs MPA in British Columbia is zoned horizontally and vertically within the water column such that a "core protection zone" surrounds the glass sponge reefs, where all industrial activities are prohibited. Some fishing and shipping activities are permitted within the other zones of the MPA.[342]

Thus far, the government has supported the 2019 announcement with a short backgrounder issued the same year,[346] but has not elaborated on the protection standards in policy or in law. However, the government has observed these protection standards within all MPAs that it has designated since the announcement.

Although the Panel recommended that PS 1 apply to all federal MPAs, currently protection standards apply only to new MPAs going forward. The DFO stated that existing MPAs in which industrial activities are currently authorized will be subject to a rolling review, and the protection standards may or may not be imposed, depending on the outcome of DFO's own analysis and its negotiations with partners and stakeholders.[347] For example, bottom trawl fishing will only be eliminated in MPAs where it is "determined to be incompatible" with an MPA's conservation objectives.[348] Additionally, the federal government will seek voluntary relinquishment of oil and gas leases within all MPAs, and where this does not occur, the MPA will not be counted towards Canada's marine protection targets.

Note that the federal government's position on the compatibility of certain activities with MPAs differs from IUCN guidelines. The federal government takes the view that activities commonly viewed as harmful or industrial may be permitted within an MPA if they are compatible with the MPA's conservation objectives.[349] For example, where the conservation objective of an MPA does not include benthic habitat protection, it is possible that DFO could decide that bottom trawl fishing is an appropriate activity. In contrast, IUCN guidelines states that "large-scale intensive (aka industrial) fishing is not compatible with any of the [IUCN management categories of MPAs] and should not occur in or adjacent to MPAs."[350] The same is true of mining.[351] Even recreational and sustainable local fishing should not occur in highly protected (IUCN categories I–III) MPAs.[352]

Since 2019, the Government of Canada has introduced protection standards for all federal MPAs, including *Oceans Act* MPAs, going forward. See Text Box 6 on protection standards for more details.

Designating MPAs

The traditional process of designating an MPA is as follows:

1 *The government selects or identifies an area of interest (AOI).* At this stage, provincial, territorial, and Indigenous governments, as well as industry and environmental stakeholders, are brought into the process.
2 *DFO conducts an ecological, social, cultural, and economic assessment of the AOI.* This may include contributions from stakeholders and other levels of government.
3 *In consultation with other governments and stakeholders, DFO develops a regulatory approach to protect the area.* It chooses the best approach, taking into account what is called a "risk assessment" or "risk analysis" of the impact of human uses on the conservation objectives of the site.[353]
4 *The regulatory process and designation of the MPA take place:*

   - The Department of Justice drafts the MPA regulations based on DFO's regulatory intent, which must be approved by the Minister of Fisheries and Oceans and the Treasury Board.
   - Draft regulations and an analysis of the MPA's impact are published in the *Canada Gazette,* Part I, for public comment. The regulations may be amended to reflect these comments.
   - At the end of this process, which takes around twenty-four months, the MPA is legally designated through publication of the regulations in the *Canada Gazette,* Part II.

5 *DFO, in consultation with partners and stakeholders, develops a management framework for the MPA.* This includes conservation objectives and a plan for management, monitoring, compliance and enforcement, and public education and outreach.[354]

The introduction of the interim MPA order power in 2019 means that areas may receive interim legal protection at an earlier stage, while assessment of the area is ongoing. The interim order MPA will still need to pass through consultation and preliminary assessments, and must be published in the *Canada Gazette.*

Identifying Areas of Interest/Candidate MPAs

Before marine areas can be selected under step 1, they must first be identified. This can happen in several ways:

- Community groups may be able to propose candidate MPAs to DFO. On Canada's Atlantic coast, the communities of Williams Harbour and Port Hope Simpson in Newfoundland and Labrador submitted a proposal to create an MPA in an area called Gilbert Bay in 1999.[355] Gilbert Bay was designated as an MPA in 2005.
- DFO may adopt areas that have been identified by other governments. For example, the Council of the Haida Nation designated the SGaan Kinghlas–Bowie Seamount MPA under Haida law as a Haida Heritage Site before the federal government started the *Oceans Act* MPA designation process for this site.
- DFO has also moved to protect rare and unique ecological features, such as the Hecate Strait and Queen Charlotte Sound Glass Sponge Reefs MPA. These areas may be first identified and advocated for by environmental groups, or the government may identify ecological hotspots as potential MPAs through scientific processes, and these hotspots are later selected for protection through MPAs.
- DFO may identify areas of interest through an MPA network designation process. One such process is currently underway in the Northern Shelf Bioregion on British Columbia's North Coast, where a draft network plan has identified some new potential sites for MPAs.[356]

Consultation and MPA Development

As noted under Step 3 (page 78), lengthy consultation processes accompany the designation of an MPA. The federal government must consult with the Indigenous government(s) that hold traditional rights within the area. DFO also engages with stakeholders in the marine area, which can include local and provincial/territorial governments, environmental organizations, and industry stakeholders such as commercial fishers, aquaculture businesses, tourism operators, logging companies, and the shipping industry. The public may also be among the stakeholders. Through this process, the government identifies the species and habitat that the site will protect, and considers any social and economic activities that will be affected by the designation.

The consultation and MPA development process takes seven years on average, and some MPAs have taken up to twelve years to designate.[357]

TEXT BOX 7

Marine protected area risk analysis

DFO conducts a risk analysis, also referred to as a risk assessment, when designating *Oceans Act* MPAs. The purpose of this analysis is to determine the interactions between human activities within the proposed area and the ecological components that have been identified as supporting the conservation objectives of the MPA. The analysis describes how these activities may affect achievement of the conservation objective. The results of the risk analysis are used to determine the allowed and prohibited activities within the MPA.

The steps in an MPA risk analysis carried out by DFO are as follows:[358]

1 *Establish context.* Establish the internal and external context and develop definitions accordingly.
2 *Identify risks.* Identify the causes and source of the risk, events, situations, or circumstances that could have a material impact upon objectives, and the nature of that impact. What could go wrong, where, and when?
3 *Analyze risks.* What are the impacts of these events, and how likely are they to occur? What are the management measures in place and how do they affect the risk level?
4 *Evaluate risks.* Is the risk acceptable? Risks are evaluated relative to risk tolerance of the organization.

During this period and until formal designation, industrial activities may continue as usual within the proposed protected area. The Commissioner of the Environment and Sustainable Development has raised concerns about DFO's slow progress and the length of time it takes to designated MPAs in two reports on MPAs in 2005 and 2012.[359]

Examples in British Columbia

There are three marine protected areas in British Columbia:

- SGaan Kinghlas–Bowie Seamount MPA
- Hecate Strait and Queen Charlotte Sound Glass Sponge Reefs MPA
- Endeavour Hydrothermal Vents MPA

5 *Manage risks.* Each level of risk triggers a predetermined level of action. Identify and assess options. Develop and implement risk treatment and mitigation plans. Evaluate residual risk.

Throughout the risk analysis process, communicate and consult with stakeholders, and carry out monitoring and review.

For each human activity, a risk analysis will assess the level of potential impact on the identified ecological features (negligible, low, moderate, high impacts), the consequences of these impacts (maintain status, changing status, reduced status), and the likelihood that the activity will interact with the identified ecological features within a fixed time frame (rare, unlikely, moderate, likely, almost certain). Data from human activities in the area can be used to inform this analysis, including the spatial scale over which the activity occurs, the frequency with which the activity occurs, and the intensity or density of the activity in an area.

Risk levels are then determined using the impact and likelihood levels. Decisions on how to manage the risk can then be made by prioritizing risks and deciding what level of action to take (avoid the risk, mitigate the risk, or accept the risk).

CASE STUDY 2 SG̲aan K̲inghlas–Bowie Seamount Marine Protected Area

SG̲aan K̲inghlas–Bowie Seamount is an ancient underwater volcano located 180 kilometres offshore from Haida Gwaii. The Council of the Haida Nation (CHN) designated Box 6 on protection standards *Xaads siigee tl'a damaan tl'a king giigangs* in 1997. According to Haida oral histories (*gin k'iiygangaas*), the seamount is home to SG̲aan K̲inghlas, a supernatural being whose name means "Supernatural being looking outwards."[360] The Haida have an intimate interconnection with supernatural beings, who inhabited the earth before the time of humans.[361]

SG̲aan K̲inghlas–Bowie Seamount was subsequently designated as an *Oceans Act* MPA by Fisheries and Oceans Canada in 2008. The seamount is an ancient underwater volcano that is thought to be a million years old and is one of the shallowest seamounts in the North Pacific, with its pinnacle just 24 metres below the ocean's surface.[362] It creates unique ocean currents and eddies that trap nutrients and support abundant, diverse habitat and feeding areas for fish and marine mammals.[363] However, the ecosystem is also fragile because the species on seamounts grow and reproduce slowly, making it vulnerable to human activities.[364]

MPA Management Board and Plan

The SG̲aan K̲inghlas–Bowie Seamount MPA is managed by a joint Management Board, established in 2007 through a memorandum of understanding (MOU) between CHN and the Minister of Fisheries and Oceans on behalf of the Government of Canada.[365] Both parties committed to facilitating cooperative management and planning of the MPA and to demonstrating DFO and CHN's shared goal of protecting and conserving SG̲aan K̲inghlas–Bowie Seamount for present and future generations.

The Management Board is responsible for developing and implementing advice on management of the MPA, including the MPA Management Plan. This includes advice on the delivery of research, fisheries management, stewardship, public outreach, and enforcement programs in the MPA. The Management Board seeks to operate by consensus. It does not have decision-making authority, but submits its advice to the Minister of Fisheries and Oceans and the CHN Executive Committee for final decision. Management measures that can be undertaken are also limited by the mandate of DFO, which does not include certain marine activities like shipping. Therefore, DFO has committed to working collaboratively with other federal agencies to manage activities within the MPA through the Management Board.

The Regulatory Impact Analysis Statement accompanying the proposed regulations for this MPA sets out a timeline for completing a management plan of two years from designation of the MPA in 2008. On July 10, 2019, the CHN and DFO announced the finalization of the Management Plan.[366] The plan was collaboratively developed by the CHN and DFO, with input from the SG̲aan K̲inghlas–Bowie Seamount Advisory Committee.

The Management Plan describes a cooperative approach to MPA management. It outlines guiding principles under Haida law and Canadian MPA principles; describes goals and objectives; identifies management tools for the area; addresses surveillance, enforcement, and user compliance; and highlights education and outreach. Four implementation priorities are identified for the

MPA: cooperative governance and adaptive co-management; research to support conservation outcomes; monitoring; and education and outreach.

Bowie Seamount Marine Protected Area regulations

The regulations for SGaan Kinghlas–Bowie Seamount MPA allow commercial, recreational, and Indigenous fishing activities, vessel travel, marine scientific research, and ship, submarine, and aircraft movement for the purpose of public safety or national security.[367] These activities are managed under the MPA Management Plan. Measures for fishing and shipping are discussed below.

Fishing impacts

As noted, the *Bowie Seamount MPA Regulations* under the *Oceans Act* permit commercial, recreational, and Indigenous fishing.[368] Under fisheries management measures, however, the northern seamount sablefish trap fishery, which uses weighted traps dropped onto the sea floor, was the only commercial fishery permitted within the boundaries of SGaan Kinghlas–Bowie Seamount upon designation.[369] Concern over this fishery was one of the primary motivations for the Haida designation, in order to close the area to bottom-contact fishing. The CHN required that, in the years following the MPA's designation, scientific research be undertaken to understand this fishery. Scientific monitoring showed that the traps were damaging ecologically important sessile organisms (corals and sponges).[370]

As a result, in 2018, DFO and the CHN decided to close all commercial, recreational, and Indigenous bottom-contact fishing at SGaan Kinghlas–Bowie Seamount. This was accomplished jointly through a Variation Order by DFO under the *Fisheries Act,* and a closure by the CHN under the Haida Constitution.[371] There is currently no fishing within the MPA.

Shipping impacts

The *MPA Regulations* also permit vessel travel within the MPA.[372] Vessel traffic is relatively dispersed in and around the MPA, with the exception of higher-intensity cargo traffic along the northeastern boundary and tanker traffic ninety kilometres south of the MPA. The Management Plan also addresses impacts from vessels, including noise, discharge of pollutants, and aquatic invasive species.[373] In addition, the *Ballast Water Regulations* under the *Canada Shipping Act, 2001* prohibit the exchange of ballast water within 50 nautical miles of Bowie Seamount.[374] The Haida Nation has recently advocated for a mandatory exclusion zone for shipping traffic.[375]

Strengths of *Oceans Act* MPAs

Although it takes an average of seven years to designate *Oceans Act* MPAs, this process is still faster than other federal marine protection tools, including National Marine Conservation Areas (NMCAs) and marine National Wildlife Areas (NWAs). As noted above, amendments to the *Oceans Act* in 2019 allow the Minister of Fisheries and Oceans to issue interim orders to protect potential areas immediately and for up to five years. The *Oceans Act* also allows for the creation of emergency interim MPAs, though, as noted, this power has never been used.

The *Oceans Act* also grants the Minister authority to develop and implement a system or network of MPAs.[376] DFO is currently working on network

TEXT BOX 8

Marine protected area networks

A marine protected area network is a collection of individual MPAs that work together in a cooperative and synergistic way to amplify the benefits of each individual site, to meet ecological goals in a more effective and comprehensive way.[377] Similar to habitat corridors on land, MPA networks are designed to bridge and support the myriad strands in the web of ocean life and magnify the benefits of each MPA on its own.

The main advantage of an MPA network over isolated MPAs is the ability to protect habitat on an ecosystem scale. This includes protecting habitat essential to the full life cycle of migratory and wide-ranging species, ensuring that the full range of coastal and marine wildlife and habitat are protected, giving species at risk or overexploited species enough space for essential functions such as reproduction, and potentially enhancing fisheries production due to fish spillover effects.[378] At the same time, economic, community, and culturally significant uses of the ocean can continue.

To be effective, several key ecological principles need to be encompassed in the design and designation MPA networks, including representation of habitat types within the region, protection of significant areas such as breeding and nursery areas, and inclusion of ecological processes that connect protected areas within the network.[379]

Because networks are so important scientifically, Canada has made several international and national commitments to developing MPA networks. In 1992, the UN *Convention on Biological Diversity* committed contracting

plans in several of Canada's marine regions, including the Northern Shelf Bioregion, located on the northern Pacific coast.[380] DFO's network planning presents opportunities for new areas to be protected, and could lead to more effective and comprehensive marine protection overall. MPA networks will likely include a range of protected areas, including *Oceans Act* MPAs, NMCAs, and protected areas designated by Indigenous and provincial governments. Compared with individual MPAs, MPA networks have greater connectivity between protected areas, protecting representative examples of all types of biodiversity across the full range of species' habitats.[381]

Although there is no legal prohibition on oil and gas activity within *Oceans Act* MPAs, the federal government has amended the *Canada Petroleum*

parties to "establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity."[382] In 1996, Canada's *Oceans Act* mandated the Minister of Fisheries and Oceans to lead the development and implementation of a national network of MPAs.[383] Through both the 2002 World Summit on Sustainable Development and the 2004 CBD Program of Work on Protected Areas, Canada again further committed to establish MPA networks.

The National Framework for Canada's Network of Marine Protected Areas, approved in 2011, provides direction for the design of a national network of MPAs through several bioregional networks.[384] Within this framework, thirteen bioregions are identified for bioregional-scale network planning. Network planning and development is underway in five priority regions: the Pacific Northern Shelf, Scotian Shelf, Estuary and Gulf of St. Lawrence, Newfoundland-Labrador Shelf, and Western Arctic Bioregions.

Coastal Indigenous nations, Canada, and British Columbia are in the process of developing Canada's first MPA Network in the Northern Shelf Bioregion (NSB).[385] The network builds on decades of co-leadership between Indigenous, federal, and provincial governments on marine spatial planning in the area, including the federal-provincial-Indigenous Pacific North Coast Integrated Management Area (PNCIMA) project and the spatial plans produced by the provincial-Indigenous Marine Plan Partnership (MaPP). The NSB marine planning processes are covered in more detail in Chapter 7.

Resources Act (CPRA) in 2019 to allow the Minister to prohibit offshore oil and gas activities within new *Oceans Act* MPAs, and to cancel or suspend oil and gas interests within *Oceans Act* MPAs.[386] *Oceans Act* MPAs are the only federal MPA designation that is supported by these amendments. Additionally, these amendments only apply in offshore oils that are governed by the CPRA, as is the case in British Columbia.

The boundaries of *Oceans Act* MPAs are designated by regulation rather than by statute, and can be more easily adjusted than those of NMCAs. This is both a strength and a weakness of this legal tool, depending on the reason for adjustment.[387]

Weaknesses of *Oceans Act* MPAs

A major weakness of the *Oceans Act* is that it does not provide a baseline of protection for all MPAs. As noted earlier, the regulations include a standard prohibition on activities that disturb, damage, destroy, or remove any living marine organism or its habitat. Though this is arguably a baseline of protection, each regulation then lists exceptions to this rule – activities that may violate this prohibition but are allowed.[388] In practice, this has enabled DFO to permit industrial activities within several MPAs.

In developing the list of exceptions, DFO relies on a risk-based assessment process to determine whether the proposed activity would harm the conservation objectives of the MPA.[389] Though this is a detailed and thorough process, it has resulted in the inclusion of industrial activities that scientific evidence indicates will always be incompatible with conservation, such as oil and gas exploration and drilling.[390] For example, oil and gas activities are expressly permitted in Tarium Niryutait MPA, and harmful fishing practices are permitted in several others.[391] In the case of the Laurentian Channel MPA on the Atlantic Coast, the government altered the boundaries of the proposed MPA and included oil and gas activities within the area following stakeholder consultations, indicating the influence that industry may have in the MPA development process.[392]

As noted above in the section on protection standards in MPAs (text box 6), the federal government has committed to adopting protection standards that prohibit oil and gas activities, bottom trawl fishing, mining, and dumping within all new federal MPAs.[393] Thus far, the standards have not been enshrined in law, and do not apply to existing MPAs, which means that these activities may continue in the several existing MPAs where they have already been approved. However, the federal government's intention to establish a

protective baseline will hopefully serve to increase certainty and efficiency in the MPA development process, and increase the level of protection.

Although there is no statutory requirement to develop management plans for individual MPAs, the Minister typically develops a plan for each MPA. The process allows for deep and meaningful consultation, but it may also delay full protection of marine areas. Typically, no timeline is given for the development of the management plan, and when there is a timeline, it is not mandatory. For example, though the Regulatory Impact Analysis Statement for SGaan Kinghlas–Bowie Seamount MPA noted that the management plan would be developed within two years of the regulation's coming into force in 2008, it was completed in 2019 (see Case Study 2 for greater detail).[394]

National Marine Conservation Areas and NMCA Reserves: *Canada National Marine Conservation Areas Act,* SC 2002, c 18 | Parks Canada

The *Canada National Marine Conservation Areas Act* (*CNMCA Act*) was passed in 2002, with the goal of establishing a national system of marine protected areas that is representative of each of the twenty-nine marine regions in Canada's Atlantic, Arctic, and Pacific Oceans and the Great Lakes.[395] These NMCAs may be designated within Canada's internal waters, territorial sea, or exclusive economic zone, subject to any Aboriginal rights or title claims.[396]

NMCAs are established with a dual mandate of protection and sustainable use. Their purpose is to benefit present and future generations, and to ensure the protection of the ecosystems within them.[397]

Because the goal is to establish NMCAs within each of Canada's marine regions, Parks Canada will prioritize the establishment of new NMCAs in unrepresented regions. To encourage progress towards that goal, every two years the Minister of Environment and Climate Change is required to submit a report to Parliament on the state of existing NMCAs and progress towards completing a representative system of NMCAs.[398]

The *CNMCA Act* enables Parks Canada to create NMCAs and NMCA Reserves (NMCARs). NMCARs are created where areas within the NMCA are subject to a claim of Aboriginal title that has been recognized by the federal government and accepted for negotiation, but has not yet been settled. NMCARs and NMCAs are subject to the same statutory framework under the *CNMCA Act*, and this text uses the acronym NMCA to refer to both except where specified.[399]

NMCAs are designated by listing and describing the areas under Schedule 1 or 2 of the act. The government must first present the proposed area to the House of Commons and the Senate, including information on any organizations consulted, an assessment of the mineral and energy resources in the area, and an interim management plan for the NMCA. Based on this information, the standing committee of each chamber that normally addresses marine conservation, or another committee designated for the purpose of considering the NMCA, will either approve or refuse the designation.[400]

The *CNMCA Act* requires the government to complete a final management plan for the NMCA within five years of its designation, and the plan is tabled in Parliament.[401] There are no penalties for missing these targets. Any amendments to the management plan, or boundary changes that would apply to the NMCA, must be approved by Parliament.[402]

The *CNMCA Act* indicates that public engagement is an important part of developing NMCAs. The Minister is required to consult with affected stakeholders, including coastal communities, federal, provincial, and Indigenous governments, and other bodies and groups. The act also requires the Minister to establish, for each NMCA, an area advisory committee to advise the Minister on the formulation, review, and implementation of the management plan for the area.[403] The advisory committee does not have decision-making authority. Instead, it provides advice to government partners on developing and implementing the management plan.[404]

The Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site (Gwaii Haanas) is the first, and at the time of writing the only, NMCA or NMCAR fully designated under the *CNMCA Act*. In addition, the federal government and the Inuit of Qikiqtani Region have signed an Inuit Impact Benefit Agreement that will allow for the establishment of Tallurutiup Imanga NMCAR in the Arctic.[405] The federal government has also signed a memorandum of understanding to launch feasibility assessments for an NMCAR in Eastern James Bay, an NMCAR on the Central Coast of British Columbia, and an Inuit (Indigenous) protected area under the *CNMCA Act* in the marine areas adjacent to Torngat Mountains National Park in Labrador.[406] Parks Canada is also considering a potential NMCA in the Southern Strait of Georgia and is conducting a feasibility study jointly with the Quebec government on a marine protected area in the Îles de la Madeleine/Magdalen Islands in the Gulf of St. Lawrence.[407]

The federal government includes freshwater conservation areas in Lake Superior and Lake Huron within its NMCA system, as well as the Saguenay–

St. Lawrence Marine Park, though these are not designated under the *CNMCA Act.*[408]

Example in British Columbia

Gwaii Haanas is the only NMCA/NMCAR in British Columbia. Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site is addressed in Case Study 16, provided in Chapter 5.

Strengths of NMCAs

The *CNMCA Act* has several specific prohibitions and unique provisions that create a strong baseline of protection for all NMCAs. First, the act prohibits, within all NMCAs, the exploration or exploitation of hydrocarbons, minerals, aggregates, or any other inorganic matter.[409]

Second, it prohibits the disposal of any substance within an NMCA unless authorized by a permit issued under strict conditions.[410] Third, every NMCA must include at least one zone that "fully protects special features or sensitive elements of ecosystems."[411] This is the only such requirement in Canadian federal marine law. Fourth, marine conservation areas are to be managed and used in particular ways, according to the sustainability principle of intergenerational equity, "that [meet] the needs of present and future generations" and without compromising the structure and function of the ecosystems, including the submerged lands and water column, with which they are associated.[412] Finally, the act mandates that the precautionary principle be a primary consideration when developing a management plan for an NMCA.[413]

The baseline protections listed above apply comprehensively to the water column and seabed within an NMCA, with the seabed being protected from activities such as directional drilling for oil and gas.[414] Further, the federal government has announced that the protection standards prohibiting bottom trawl fishing, dumping, mining, and oil and gas activities will apply to all future NMCAs.[415]

The *CNMCA Act* allows the federal government to make regulations that may restrict both fishing and shipping within NMCAs, in conjunction with DFO and Transport Canada, respectively. Once enacted, these regulations supersede regulations adopted under other acts, including both the *Fisheries Act* and the *Canada Shipping Act, 2001.*[416]

As described above, parliamentary oversight of NMCAs is significant, meaning there is greater democratic accountability for NMCAs than for *Oceans Act* MPAs.

Finally, the Gwaii Haanas NMCAR and Haida Heritage Site covers a large marine area, and NMCAs appear to have a larger budget and more staff than most *Oceans Act* MPAs and National Wildlife Areas.[417] As Gwaii Haanas is the only area in British Columbia and in Canada designated under the *CNMCA Act* to date, whether this will prove to be typical for NMCAs remains to be seen.

Weaknesses of NMCAs

While requirements for parliamentary oversight, along with the detailed assessment and consultation requirements, lead to greater democratic accountability, they also mean that NMCAs can take more time to establish than *Oceans Act* MPAs. Extensive assessments and consultations may also make them costlier to establish than other marine protection designations, such as *Oceans Act* MPAs and National Wildlife Areas.

The *CNMCA Act* offers limited guidance on how regulations concerning fishing or shipping would protect the environment, other than requiring that the primary considerations when designing management plans must be the principles of ecosystem management and the precautionary principle.[418] Further, though the act came into force in 2002, fishing and shipping regulations for NMCAs have not yet been developed, and so far have been addressed through management plans.[419]

Finally, the goal of an NMCA is different from that of a national park. While national parks are intended to "protect ecosystems in a state essentially unaltered by human activity," the focus of an NMCA is on environmental sustainability, including sustainable use.[420] Sustainable use is a more flexible and arguably weaker standard than marine protection, and introduces many of the same challenges posed by discretionary standards in *Oceans Act* MPAs. A discussion paper for potential new NMCA regulations indicates that Parks Canada is considering quite intensive and potentially harmful uses within multiple-use zones, including aquaculture and renewable energy tenures, which could negatively impact the benefits of these areas.[421]

National Parks and National Park Reserves with Marine Components: *Canada National Parks Act,* SC 2000, c 32 | Parks Canada

National parks are the oldest type of protected area under federal Crown law, and were originally established to protect terrestrial areas. However, the boundaries of some national parks in coastal areas include marine waters in areas adjacent to land. For example, British Columbia's Pacific Rim

National Park Reserve stretches along 105 kilometres of coastline, and the Gulf Islands National Park Reserve covers 26 square kilometres of marine area.[422]

The *Canada Nation Parks Act* enables Parks Canada to create National Parks and National Park Reserves. National Park Reserves are created where areas within the park are subject to a claim of Aboriginal title that has been recognized by the federal government and accepted for negotiation, but has not yet been settled.

National parks are dedicated to the benefit, education, and enjoyment of Canadians. Unlike the *CNMCA Act,* the *Canada National Parks Act* does not mention protection of ecosystems as an intended purpose; it does require, however, that national parks be used and maintained so that the areas are "unimpaired" for the enjoyment of future generations.[423]

The process of designating a national park is very similar to that of an NMCA, and requires the federal government to present to Parliament a report detailing the assessments and consultations it has undertaken, for approval by the relevant standing committee. The government must also table the park's management plan in Parliament.[424]

Examples in British Columbia

There are two national parks with marine components in British Columbia:

- Gulf Islands National Park Reserve (the marine area in the Gulf Islands National Park Reserve may eventually be included within the proposed Southern Strait of Georgia NMCA)[425]
- Pacific Rim National Park Reserve.

CASE STUDY 3 Pacific Rim National Park Reserve

Pacific Rim National Park Reserve on Vancouver Island was designated in 1970 and became an official national park in 2001.[426] The park reserve covers terrestrial and marine areas encompassing 525 square kilometres and consists of three geographically distinct units: the Long Beach Unit, the West Coast Trail Unit, and the Broken Group Islands Unit. The largest marine park section lies around the Broken Group Islands (9,178 hectares), followed by the West Coast Trail marine section (6,623 hectares) and the Long Beach marine section (6,367 hectares).

Restricted activities

Pacific Rim is one of the most popular national parks in Canada, with over a million visitors annually and the highest backcountry use of any Canadian national park.[427] Prohibitions found in the *Canada National Parks Act* are designed to protect coastal, foreshore, and other areas from human activities. Under the act, it is illegal to collect and remove natural or cultural objects;[428] feed, harass, or hunt wildlife;[429] or camp outside designated camping areas or without a permit.[430]

In 2002, DFO established a year-round finfish fishery closure for both commercial and recreational fisheries within the Broken Islands Group Unit of the park reserve.[431] Fisheries remain open in the Long Beach and West Coast Trail Units, which has placed pressure on the park's marine ecosystems.

The 2009 "State of the Parks" report for Pacific Rim noted a decline in the ecological integrity of the park's subtidal zones, as stress from fish harvesting has had a cascading effect on seabirds. Climate change and invasive species are also damaging the marine and intertidal ecosystems in the park.[432]

Recreational and transportation businesses require licences to operate within the park reserve, as established in the *Canada National Parks Act.*

Indigenous relations

Historically, efforts to create protected areas were not made with the collaboration or consent of the Indigenous peoples who called these areas home, and often Indigenous people were forced to relocate or were restricted by protected area legislation.[433] Efforts to shift this paradigm have been made across the country, including at Pacific Rim. In 2004, Parks Canada returned eighty-six hectares of land within the Pacific Rim reserve to the Tla-o-qui-aht First Nations.[434]

Additional efforts have been made to formalize co-management of the park. Parks Canada and nine Nuu-chah-nulth First Nations have established Cooperative Management Boards and Working Groups, in accordance with the objectives of the park's management plan.[435] Among other initiatives, these collaborative process have led to the establishment of a team of First Nations Guardians and Beach Keepers who ensure that visitors are safe and respectful.[436] In 2016, Parks Canada created a Species at Risk action plan in collaboration with the Pacheedaht First Nation and several Nuu-chah-nulth First Nations for areas within the Pacific Rim reserve.[437]

Strengths of the Natonal Park Designation

One of the strongest aspects of the *Canada National Parks Act* is that the Minister of Environment and Climate Change's first priority when managing a national park must be the maintenance or restoration of ecological integrity.[438] This means that an area maintains its natural characteristics as a whole: the act defines ecological integrity as "a condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes."[439] Although this definition makes meaningful protection of the environment a top priority, there are conflicting views on what the requirement actually means, and the issue has been litigated.[440]

Similar to the *CNMCA Act,* the *Canada National Parks Act* also allows the government to regulate fishing within national parks, which it has done through the *National Parks of Canada Fishing Regulations.*[441] These regulations prohibit commercial fishing within national parks.

As is the case with most protected areas, national parks legislation interacts with protections under the *Species at Risk Act* to strengthen spatial protection. The *Species at Risk Act* requires that within ninety days of any critical habitat being identified within a national park or National Historic Site, the Minister must publish a critical habitat description in the *Canada Gazette.* Ninety days following publication, the critical habitat is automatically protected through a final recovery strategy or action plan, and included in the Species at Risk Public Registry.[442] For more information on critical habitat protection, see "Species at Risk Critical Habitat" below.

Weaknesses of the National Park Designation

Despite the importance given to ecological integrity within the act, the court has not found the duty to maintain ecological integrity in national parks to be as strong as the wording implies. In a 2003 decision, the Federal Court of Appeal confirmed that the maintenance of ecological integrity is not a paramount concern, but rather one of several factors that Parks Canada must consider when managing a national park.[443] In that case, the Canadian Parks and Wilderness Society (CPAWS) challenged a decision by Parks Canada to approve construction of a road through Wood Buffalo National Park. One of the grounds of its challenge was that the Minister had failed to make the "maintenance or restoration of the ecological integrity" of the park his first priority when approving the road. The Federal Court disagreed, effectively deciding that the maintenance of ecological in-

tegrity was just one of several factors that Parks Canada must consider when managing national parks.[444]

National Wildlife Areas: *Canada Wildlife Act,* RSC 1985, c W-9 | Canadian Wildlife Service, Environment and Climate Change Canada

First enacted in 1973, the *Canada Wildlife Act* is Canada's second-oldest law for creating protected areas for wildlife and their habitat. National Wildlife Areas (NWAs) may be created under the act for the purposes of conserving, researching, and interpreting wildlife within those areas.[445]

The Canadian Wildlife Service, a division of Environment and Climate Change Canada, is responsible for NWAs. NWAs are generally established to protect migratory birds or species at risk, but they may also be established to protect rare and unusual habitat areas, or areas that have a high potential for restoration.[446] An area must meet one of these criteria in order to be considered for NWA designation.[447]

While most NWAs are on land, some also encompass marine areas; and there is a separate designation under the Canada Wildlife Act for "protected marine areas," more commonly referred to as marine NWAs, which are wholly marine. There are currently fifty-four NWAs in Canada, including thirteen with marine components. Together, these areas protect approximately 1 million hectares of animal habitat, of which nearly half is marine habitat.[448] Within British Columbia, there are five NWAs; four of these are primarily terrestrial, though two include coastal and marine areas, and one is a marine NWA. The terrestrial NWAs were all designated in the 1970s. The first and only marine NWA in Canada, Scott Islands, was designated in British Columbia in 2018.

Potential NWAs are typically identified by habitat specialists from the Canadian Wildlife Service. Once a potential area has been identified, a values assessment (which considers conservation values, natural resources, and other values) determines the proposed boundaries for the area.[449] Typically, NWAs are established by an Order in Council that assigns the area to the management and control of the Minister of Environment and Climate Change. These areas may then be listed in Schedule I to the *Wildlife Area Regulations,* or under their own regulation (see "Marine National Wildlife Areas" below). The *Wildlife Area Regulations* contains a list of activities that are prohibited within NWAs, and a permitting process for some of these activities.

Marine National Wildlife Areas

As noted above, most NWAs are on land, and a few encompass coastal and marine areas as well. The first marine NWA, Scott Islands, was designated in 2018 as a "protected marine area" under the act. Rather than being included under the general *Wildlife Area Regulations,* the area was given its own regulation – the *Scott Islands Protected Marine Area Regulations,* which are more akin to *Oceans Act* MPA regulations than regulations for other NWAs.

This new regulatory procedure overcomes the more limited jurisdiction in marine areas granted to CWS-Environment and Climate Change Canada under the *Canada Wildlife Act.* Because the act defines "public lands" to include Canada's inland waters and territorial sea but not the exclusive economic zone (EEZ), the powers for wildlife research, conservation, and interpretation granted to ECCC under section 4 of the act do not extend beyond the territorial sea.[450] Similarly, the Wildlife Area Regulations apply only to wildlife areas on public lands, which excludes the EEZ.[451] However, the *Canada Wildlife Act* does enable CWS-ECCC to create protected marine areas anywhere in Canada's internal waters, territorial sea, or EEZ, and empowers CWS-ECCC to set out measures to conserve wildlife in any of these areas, allowing the designation of marine NWAs like Scott Islands.[452]

Examples in British Columbia

There are three National Wildlife Areas in British Columbia that include marine areas:

- Alaksen NWA is a small NWA in the Fraser River Delta, covering approximately 3.5 square kilometres. It was established in 1972 and is important habitat for migratory birds. It is also designated as a globally significant Important Bird and Biodiversity Area, a Western Hemisphere Shorebird Reserve Network Site, and a part of an internationally designated Ramsar site. The area also overlaps with the George C. Reifel Migratory Bird Sanctuary.[453]
- Qualicum NWA is situated in the Nanaimo Lowlands on Vancouver Island. This small area, 0.78 square kilometres, was designated in 1977 to preserve estuaries and uplands for migratory waterfowl.[454]
- Scott Islands marine National Wildlife Area, discussed in Case Study 4.

CASE STUDY 4 Scott Islands marine National Wildlife Area

The Scott Islands are a group of five islands on the northwestern tip of Vancouver Island. They are key breeding grounds and feeding areas for over 40 percent of British Columbia's seabirds. The Scott Islands marine National Wildlife Area (mNWA) encompasses 11,546 square kilometres of the marine environment surrounding the islands.

Although the terrestrial areas of the Scott Islands were protected early on as BC provincial parks and ecological reserves,[455] consultation and planning for designation of the mNWA took place over seventeen years. Environmental groups began campaigning to protect the marine area in 2000, but early efforts stalled. The area resurfaced as a potential marine protected area following the federal government's 2015 commitment to protect 10 percent of Canada's ocean by 2020.

The Canadian Wildlife Service established a steering committing and advisory group for the mNWA in 2010, which led to stakeholder meetings and planning of regulatory strategies. While Environment and Climate Change Canada, through CWS, led the protected area process, Fisheries and Oceans Canada, Transport Canada, and Natural Resources Canada were also involved because of their management authority over fishing, shipping, and offshore oil and gas, respectively.

The federal government published draft regulations for the mNWA in December 2016. These were criticized by the public and environmental non-governmental organizations for failing to address commercial fishing and shipping within the proposed area. The government received letters from scientists, ocean advocates, and the public demanding greater restrictions on commercial fishing and shipping in the area.[456]

The mNWA designation of the area was announced in September 2018. As part of the official announcement, Shell Canada voluntarily relinquished 50,000 square kilometres of oil and gas leases off the Pacific coast, including within the Scott Islands mNWA.[457]

Regulations still permit commercial activities within the designated area, including bottom trawl fishing within approximately 20 percent of the area in accordance with the *Habitat Conservation Collaboration Agreement* on Pacific groundfish trawling.[458] A final management plan was expected in 2020 but is still in development.[459]

Strengths of the *Canada Wildlife Act*

The *Wildlife Area Regulations,* promulgated under the *Canada Wildlife Act,* apply to all NWAs except for the Scott Islands. They prohibit a number of activities, including:

- hunting and fishing
- causing damage, destruction, or removal of plants
- swimming
- carrying on any commercial or industrial activity
- disturbing or removing any soil, sand, gravel, or other material
- dumping or depositing any rubbish, waste material, or substance that would degrade or alter the quality of the environment.[460]

The Minister of Environment and Climate Change may issue permits allowing any of these activities to be carried out by the permit holder, as long as the activity does not interfere with the conservation of wildlife.[461] The Minister may also decide to authorize any prohibited activity for everyone by posting a notice in a newspaper or at the entrance to the NWA. However, the Government of Canada has announced that the protection standards prohibiting bottom trawl fishing, dumping, mining, and oil and gas activities will apply to all future marine NWAs, and marine portions of NWAs.[462]

Weaknesses of the *Canada Wildlife Act*

A key weakness in the legislative framework for NWAs is the requirement that ECCC own or control a site before an NWA can be established in the area. This can slow down the process of designation, as it can take time for ECCC to acquire land.[463] In addition, it is possible for an NWA to be established in an area where ECCC controls the surface of the land but not subsurface rights, which could threaten the ecological integrity of the area.[464]

Some NGOs have questioned the suitability of NWAs for marine protection, compared with National Marine Conservation Areas and *Oceans Act* Marine Protected Areas.[465] Historically, NWAs have been primarily established to protect bird habitat – even Scott Island marine NWA was established to protect seabirds – rather than a broad range of aquatic species. Thus NWAs may be most suited to coastal areas, or supplemented by additional designations like fisheries closures or regulations.

There are also problems in the implementation of NWAs. Reports from the Commissioner of the Environment and Sustainable Development (CESD) in 2008 and 2013 identified several deficiencies in the actual management of

NWAs.[466] For example, though CWS had identified specific threats to NWAs, it had not assessed whether conditions were improving or deteriorating at the sites, nor had it used the information collected to address threats on a priority basis.

The CESD also found that most NWAs still lacked up-to-date management plans, and that ECCC had allocated insufficient human and financial resources to CWS in order to address urgent needs or activities related to maintenance of the sites and enforcement of regulations in NWAs.[467]

Until the designations of the Scott Islands in 2018, no new NWAs had been designated in British Columbia since 1979.

Migratory Bird Sanctuaries: *Migratory Birds Convention Act,* 1994, SC 1994, c 22 | Canadian Wildlife Service, Environment and Climate Change Canada

The *Migratory Birds Convention Act,* first enacted in 1917, is Canada's oldest environmental treaty and the first law in Canada whose primary purpose was to protect wildlife through protected areas.[468] The act was a response to overhunting, the most important threat to conservation at the time. Early Migratory Bird Sanctuaries (MBSs) in Canada were designed to protect birds, nests, and eggs from direct threats: killing, harm, and harassment during a critical part of their life cycle.[469] The act did not specifically protect migratory bird habitat until 1974, when the *Migratory Bird Sanctuary Regulations* were amended to include section 10, which regulates, through a permitting process, all activities within sanctuaries that are harmful to migratory birds and their habitat.[470]

Migratory Bird Sanctuaries are designed to protect migratory birds, including seabirds. The Canada Wildlife Service, a branch of Environment and Climate Change Canada (ECCC), is responsible for administering and managing this protected area. In quantitative terms, Migratory Bird Sanctuaries make a relatively small contribution to overall marine conservation: they are typically created from lands donated by private landowners, and they cover small areas of coastal and marine bird habitat. In British Columbia, there are only seven Migratory Bird Sanctuaries covering a total area of 32 square kilometres.[471] The quality of protection provided by Migratory Bird Sanctuaries has also been questioned, as discussed below.

Within sanctuaries, it is prohibited to hunt migratory birds and to damage bird nests.[472] Further, any activity that harms migratory birds, their eggs, their nests, or their habitat requires a permit from CWS. Permits contain conditions necessary to protect migratory birds, eggs, nests, and habitat.[473]

CWS provides detailed technical guidance for avoiding harm to migratory birds.[474]

Migratory Bird Sanctuaries are designated by listing the area under Schedule I to the *Migratory Bird Sanctuary Regulations.*

Examples in British Columbia

There are seven Migratory Bird Sanctuaries in British Columbia:

- Vaseux Lake MBS, established in 1923, is located south of Penticton.
- Victoria Harbour MBS, established in 1923, is located on the south point of Vancouver Island, covering much of the marine area around Victoria.
- Shoal Harbour MBS, established in 1931, is located north of Victoria in the marine area between Sidney and Swartz Bay.
- Esquimalt Lagoon MBS, established in 1931, is located near Colwood, at the entrance to Esquimalt Harbour.
- Nechako River MBS, established in 1944, is located on the Nechako River west of Prince George.
- Christie Islet MBS, established in 1962, is located in Howe Sound south of Anvil Island.
- George C. Reifel MBS, established in 1967, is located on Westham Island in the Fraser River Estuary.

Strengths of Migratory Bird Sanctuaries

A Migratory Bird Sanctuary can be established on private, provincial, territorial, or federal land or ocean, and can be established anywhere in Canada's exclusive economic zone.[475]

The MPA protection standards announced by the federal government in 2019 also apply to all marine portions of future Migratory Bird Sanctuaries.[476] This means that bottom trawl fishing, dumping, mining, and oil and gas activities will be prohibited in the marine components of future Migratory Bird Sanctuaries.[477]

Weaknesses of Migratory Bird Sanctuaries

Migratory Bird Sanctuaries were designed to protect birds at a time when overhunting by humans was the biggest threat they faced. Because the use of this tool is so specific, its application in modern marine conservation contexts is more limited.

Although the *Migratory Bird Sanctuary Regulations* clearly prohibit hunting and possession of birds within sanctuaries, the protection offered

to bird habitat in such sanctuaries may be more limited. The designation ostensibly offers strong protection by prohibiting anything that harms migratory birds or bird habitat, but in practice could allow many potentially harmful activities to occur.

The Canadian Nature Federation has noted that the legislation protects only those elements of a Migratory Bird Sanctuary that are considered to be habitat of migratory birds, compared with stronger restrictions imposed by the *Wildlife Area Regulations.*[478] The federation also notes that CWS has been reluctant to apply and enforce this protection.[479]

The permitting process allows CWS to regulate activities within sanctuaries, but also gives the government significant discretion when granting permits. The Minister is required only to impose protective conditions that "in the opinion of the Minister are necessary."[480] Further, the permitting process does not apply to Migratory Bird Sanctuaries on private land.[481] This would likely limit their application in some offshore areas. As mentioned above, only seven Migratory Bird Sanctuaries have been designated in British Columbia, most recently in 1967.[482]

As discussed under "National Wildlife Areas" (pp. 97–98), the Commissioner of the Environment and Sustainable Development has criticized ECCC for allocating insufficient human and financial resources to CWS to monitor and enforce protected areas under its jurisdiction. Similar to National Wildlife Areas, most Migratory Bird Sanctuaries are not patrolled or inspected on a regular basis. The CESD's 2008 audit found that enforcement of these areas is low, likely because wildlife enforcement officers are concentrated in urban areas and have limited capacity to visit the sites.[483]

Finally, though Migratory Bird Sanctuaries can still be established, they appear to be less relevant as a conservation tool: CWS considers National Wildlife Areas under the *Canada Wildlife Act* to be its primary tool for wildlife habitat protection in Canada.[484]

OTHER DESIGNATIONS AND TOOLS

Fisheries Closures: *Fisheries Act,* RSC 1985, c F-14 | Fisheries and Oceans Canada

A fishery closure is a management measure intended to protect a portion of fish stocks from harvest. It can be used to close areas to fishing for specific species, or to specific fishing gear types. The closures may be seasonal or year-round. In some cases, all fisheries in an area may be closed through a series of fisheries closures. Fisheries closures in and of themselves

will generally not qualify as a protected area. One exception is if the closure has nature conservation as its primary objective, and is managed according to this objective.[485] This would move the fishery closure into the realm of a marine refuge, which DFO recognizes as a conservation measure (discussed below under "Other Effective Area-Based Conservation Measures").

Fisheries openings and closures are laid out in regulations made under the *Fisheries Act* that apply to a specific region or industry. For example, many fisheries in British Columbia are governed by the *Pacific Fishery Regulations, 1993,* which lay out seasonal fisheries closures for specific species. The Regional Director General of DFO may vary the close times set out in the regulations by issuing Variation Orders.[486] In fact, the Regional Director General has unconstrained discretion to impose, adjust, or end fisheries closures, a level of discretion that the Federal Court of Canada has characterized as the "widest possible freedom to manoeuvre in regulating the fishery."[487] This high level of discretion has both advantages and disadvantages for conservation (described in the discussions of strengths and weaknesses below).

Long-term fisheries closures can accompany marine protected areas designated by other orders of government, such as Indigenous and provincial governments. This is an example of "layering" of designations, covered in more detail in Chapter 7. The Province of British Columbia has reportedly requested that the federal government impose commercial fisheries closures in provincial ecological reserves and provincial MPAs as far back as 2004, but these requests have not been made public. A 2011 study found that, as of 2008, commercial fishing was allowed in 160 of the province's 161 MPAs, contrary to the intent behind many of the MPAs to fully protect the area. The authors identified "cross jurisdictional management failure" as one likely reason for this discrepancy between reality and intent.[488]

Fisheries management measures are in place in most of the waters off the BC coast. Many of these are seasonal, temporal, or species-specific, and are subject to change. DFO maintains an online database of fisheries closures on the Pacific coast.[489]

Strengths of Fisheries Closures

Because fisheries closures are issued at the Regional Director General's discretion and are intended to respond quickly to fisheries management needs, they can be established more quickly than any of the federal protected area designations. They are also easier to implement and adjust, and are targeted to the specific issues that need management attention.

This ease of implementation could potentially enable the speedy creation of large networks of areas protected through fisheries closures, and enable effective species-level management.

Weaknesses of Fisheries Closures

The most important downside to fisheries closures is that they apply only to fishing activities. These closures cannot limit or prohibit non-fishing

CASE STUDY 5 Rockfish Conservation Areas

Rockfish Conservation Areas (RCAs) are a particular type of fishery closure designated to protect rockfish. Areas for designation as RCAs are identified using fishing information on rockfish catch and data on rockfish habitat. Within RCAs, inshore rockfish are protected from threats associated with recreational and commercial fisheries. Fishing activities that target rockfish or have the potential to lead to significant rockfish bycatch are prohibited; other commercial and recreational fisheries continue to be permitted.[490] The Rockfish Conservation Area designation has been applied to 164 sites in British Columbia.

As fisheries closures, RCAs allow for effective network-level planning and implementation because of their ease of implementation, but they lack the permanence and comprehensiveness of areas established under the *Oceans Act* or other marine protection legislation.[491] The primary goal of RCAs is to rebuild rockfish stocks; they are not intended to conserve or rebuild overall marine biological diversity.[492] No RCAs on the Pacific coast are closed to all commercial fisheries, other than those that overlap other areas established for marine conservation. For example, some RCAs now overlap with marine refuges in Howe Sound established to protect glass sponge reefs.[493]

Another significant issue is the absence of any monitoring requirements to evaluate the conservation effectiveness of RCAs, unlike with other types of protected areas. Preliminary studies carried out by academic fisheries scientists did not consistently find a significant difference between rockfish populations inside and outside RCAs.[494] A 2015 study found that this was likely due to accidental as well as intentional non-compliance by recreational fishers, who account for 89 percent of all rockfish fishing in the Strait of Georgia, many of whom were unaware of the RCAs or their locations.[495]

activities. Fisheries closures thus cannot address the same breadth of conservation issues as MPAs; additionally, they are usually species-specific and do not require the development of a management plan.

Fisheries closures also lack the permanence of a protected area. This is because they are created through an order by the Regional Director General, which, as noted, is a highly discretionary management measure that may be reversed or withdrawn at any time. In contrast, protected areas are entrenched in legislation that is more difficult to revoke.

Other Effective Area-Based Conservation Measures

"Other effective area-based conservation measures" (OECMs) is a term derived from international guidance to describe areas of the ocean that are conserved, but not through protected areas. The term originates from Aichi Biodiversity Target 11 under *the Convention on Biological Diversity*, which states:

> By 2020, at least 17 per cent of terrestrial and inland water areas and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and *other effective area-based conservation measures,* and integrated into the wider landscape and seascape.[496]

In Canada, DFO has so far identified only one type of area that qualifies as an OECM, known as the marine refuge, and for the remainder of this chapter, the term "marine refuge" is used to discuss OECMs. However, DFO may also identify different areas as OECMs. For example, the IUCN has stated that a number of different types of areas could meet the requirement of an OECM, including Indigenous Protected and Conserved Areas, cultural or historic sites, and others.[497] Additionally, DFO is in the process of developing biodiversity protection regulations under the *Fisheries Act* that may be used in the future to designate OECMs.[498]

The marine refuge is a particular tool that DFO has developed. Marine refuges are essentially long-term *Fisheries Act* closures that have been determined to meet the requirements of DFO's *Operational Guidance for Identifying 'Other Effective Area-Based Conservation Measures' in Canada's Marine Environment*.[499]

DFO designed the marine refuge program in order to help meet its national and international target of protecting 10 percent of Canada's ocean by

2020, as marine refuges can be designated much more quickly than protected areas. At the time of writing, marine refuges make up 4.93 percent of protected marine areas counting towards the target.[500]

DFO's Operational Guidance requires OECMs to meet the following criteria:

- A clearly defined geographic location
- Conservation or stock management objectives
- Presence of ecological components of interest – that is, a habitat important to conservation and a regionally important species that uses that habitat
- Long-term duration of implementation, including entrenchment in legislation or regulation
- Effective conservation of the ecological components of interest – meaning that no human activities that are incompatible with conservation of the ecological component of interest may occur or be foreseeable within the area.[501]

Examples in British Columbia

At the time of writing, the following two areas are the only marine refuges in British Columbia. The legal mechanisms used to protected both areas are a Variation Order under the *Fishery (General) Regulations* and conditions of licence:

- Offshore Pacific Seamounts and Vents Closure, a large offshore area that is 82, 530 squared kilometres and that is also under study as part of the proposed Pacific Offshore *Oceans Act* MPA[502]
- Strait of Georgia and Howe Sound Glass Sponge Reef, which is made up of seventeen different marine refuges to protect the glass sponge reefs from bottom-contact fishing.[503] DFO has protected an additional five reefs in Howe Sound using fisheries closures, which are expected to become marine refuges.[504]

Strengths of Marine Refuges

Because they are established through fisheries Variation Orders or conditions of licence, marine refuges can be introduced more quickly than protected areas like *Oceans Act* MPAs, mNWAs or NMCAs. This also makes them highly adaptive, as the boundaries can be updated to reflect new scientific understanding.

The Operational Guidance requires marine refuges to have a conservation or stock management objective, and to be in place for at least twenty-five years. This distinguishes marine refuges from fisheries closures in policy if not in law, and makes them a much stronger form of protection than fisheries measures alone.

Weaknesses of Marine Refuges

Marine refuges are not as well protected as MPAs because the legal tools used to implement marine refuges (fisheries closures and conditions of fishing licences) apply only to fishing, leaving them vulnerable to other industrial activities, such as oil and gas or shipping.

This has become an issue on the Atlantic coast, where the Canada-Newfoundland and Labrador Offshore Petroleum Board proposed oil and gas leases within the Northeast Newfoundland Slope Marine Refuge, a fishery closure that DFO had been counting towards its ocean conservation goals.[505] Because the *Fisheries Act* has no jurisdiction over oil and gas, the Offshore Petroleum Board technically does not need to consider the existence of marine refuges when it solicits bids, though a whole-of-government approach suggests that these refuges should be honoured and kept free from damaging activities such as oil and gas. In the absence of this approach, DFO must rely on non-regulatory measures to mitigate the threat of non-fishing activities.

In addition, marine refuges lack the permanence of MPA designations. To qualify as a marine refuge, a fishery closure must last a minimum of twenty-five years, but this timeline is not entrenched in law.

There is also concern over how the designation has been implemented. DFO's guidance on marine refuges are not consistent with the IUCN or CBD guidelines on "other effective area-based measures" of protection.[506] A recent analysis found that 60 percent of Canada's marine refuges do not meet international standards for highly protected areas, while 26 percent fail to meet DFO's own guidance for the areas.[507]

Protection of Ecologically Significant Areas: *Fisheries Act*, RSC 1985, c F-14 | Fisheries and Oceans Canada

Subsection 35.2(2) of the *Fisheries Act* gives DFO the power to identify ecologically significant areas (ESAs) that require enhanced protection and to protect these areas by designating them through regulation. The act lays out the foundation for this type of designation. At the time of writing, no policy or regulations are in place to provide the details of this designation,

including the definition of an ecologically significant area. However, DFO has released a draft National Framework for Identifying, Establishing, and Managing Ecologically Significant Areas (drafted in 2022 through the Fish and Fish Habitat Protection Program).

This framework and other technical information outlines DFO's intentions for the ESA designation. Much of the information in this section is based on these intentions as expressed through the draft framework and technical presentations; however, at the time of writing, the framework has not yet been finalized. These materials outline key criteria for identifying ESA sites, guidance for setting conservation and protection objectives, the phases of establishing ESAs in regulation, and ESA management.[508]

DFO has indicated that it intends to use the ESA designation to provide long-term protection and conservation, through regulation for "sensitive, highly productive, rare or unique areas" of fish and fish habitat.[509] These terms will be defined based on criteria from DFO and the CBD. Protected habitat can include marine, estuarine or freshwater environments, including riparian zones.[510]

ESAs will address any activity that may affect fish and fish habitat other than fishing.[511] Activities within ESAs would be assessed on an individual basis, to determine whether they have the potential to threaten the fish and fish habitat conservation objectives for the site.[512] These activities may be prohibited by regulation on a site-by-site basis. The Minister could also authorize activities that could pose a threat if they are satisfied that avoidance and mitigation measures exist for the project so that conservation and protection of fish and fish habitat could still be achieved. If so, these measures would be a condition of the authorization.[513]

ESAs may also overlap with other conservation and management tools, for example, fisheries closures or marine refuges, which address fishing activities. ESAs may also be counted towards the government's 25 percent by 2025 and 30 percent by 2030 targets, as an OECM or in combinatation with another designation like a marine refuge.[514]

At the time of writing, no ESAs have yet been designated in British Columbia or Canada.

Strengths and Weaknesses of Ecologically Significant Areas

Because these are new and untested provisions for which no regulation exists, it is difficult to assess the effectiveness of the designation. However, as ESAs are designated by regulation, they could be identified and protected relatively quickly, while providing long-term protection. If the ESA regula-

tion were to prohibit harmful activities within the area, this would provide a baseline of protection to these areas. Additionally, ESAs could be a fairly comprehensive form of protection, particularly for areas that are subject to upstream or external impacts, as the the ESA must address all activities that affect fish or fish habitat, whether it is within the spatially managed area or not. For example, an ESA designated to protect salmon habitat in an estuary would have to address upstream activities like logging in order to fully protect the area.

TEXT BOX 9

Other fisheries management tools

Fisheries conditions of licence

Section 22(1) of the *Fishery (General) Regulations* enables the Minister of Fisheries and Oceans to impose conditions on fishing licences for the proper management and control of fisheries and the conservation and protection of fish. The provision includes a list of matters to which these conditions may apply: the waters in which fishing is permitted, the type of species fished, and the type of fishing gear used. Section 22(2) authorizes the Minister to amend the conditions of a licence "for the purposes of the conservation and protection of fish."

Fishing licences are highly discretionary: DFO has "absolute discretion" under subsection 7(1) of the *Fisheries Act* to issue the licences, including for the purposes of conservation and protection. DFO policies provide significant guidance to the Minister when imposing conditions of licences, but they do not bind the Minister. This discretion may allow for flexibility and speed when using licence conditions as a protection tool, but also means the protections may be easily changed on revoked.

Voluntary closures or avoidance areas

DFO may also issue non-legislated or voluntary closures of areas via public requests. For example, in September 2017, DFO requested fishers using bottom-contact fishing methods to avoid nine areas in Howe Sound.[515] These voluntary avoidance areas were intended to help protect the glass sponge reefs not protected through fisheries closures at the time. In March 2019, DFO designated these areas as marine refuges, closing the fisheries there and providing stronger protection.[516]

On the other hand, there is the potential for significant discretion to be built into the designation. DFO has indicated that protection standards will not apply to ESAs, and each site and each activity will be addressed an individual basis, to determine whether it will affect the conservation and protection objectives for that site.[517] If satisfied that harms to fish or fish habitat can be mitigated, DFO could authorize activities that would be prohibited in a fully and highly protected area, weakening the strength of the protection.

Species at Risk Critical Habitat: *Species at Risk Act,* SC 2002, c 29 | Environment and Climate Change Canada; Fisheries and Oceans Canada

The purpose of the *Species at Risk Act* (SARA) is to prevent wildlife species from becoming extinct or extirpated (i.e., extinct in the wild in Canada); to provide for the recovery of wildlife species that are extirpated, endangered, or threatened;[518] and to prevent species of "special concern" from becoming endangered or threatened.[519]

SARA is important in the marine context because, as a federal statute, it applies to all federal lands, including Canada's internal waters and territorial sea, as well as to migratory birds and aquatic species.[520] In addition, some powers under SARA, including those to protect critical habitat for species at risk, extend to include the ocean's exclusive economic zone and continental shelf.[521]

Under SARA, critical habitat designations are used to protect important habitat of threatened, endangered, or extirpated species so that these species may survive and recover. Critical habitat protections automatically apply for species that are legally recognized as threatened, endangered, or extirpated by being listed under one of these categories in Schedule 1 of SARA, "List of Wildlife Species at Risk."

The Minister of Fisheries and Oceans is responsible for aquatic species under SARA, while the Minister of the Environment and Climate Change is responsible for all other species.[522] The latter is still involved in some steps of the listing process, however, and would be involved in the protection of species at risk within National Marine Conservation Areas, as the Minister responsible for Parks Canada.

Critical Habitat Protection Process

There are three steps in designating critical habitat for species at risk: (1) listing a species in Schedule 1 of SARA; (2) identifying critical habitat; and (3) legally protecting critical habitat.

Step 1: Listing a species in Schedule 1 of SARA

A species is recognized as threatened, endangered, or extirpated upon being listed under Schedule 1 of SARA, "List of Wildlife Species at Risk." Listing is required for legal protection; if a species is not on the list, it will not be protected.[523]

Most species are listed through regular assessments undertaken by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), an arm's-length committee that was legally established under SARA, though it had existed as a committee since 1977.[524] COSEWIC undertakes these assessments based on a candidate list of species it considers to be at risk, deciding which species to prioritize based on their likelihood of becoming extinct. In its assessment, COSEWIC classifies a species as Extinct, Extirpated, Endangered, Threatened, Special Concern, or Not at Risk. COSEWIC can also determine that there is not enough information to classify the species.[525]

A citizen may trigger the assessment of a wildlife species that is not on the Schedule 1 list or elevate the status of a species that is on the list (e.g., from Special Concern to Endangered). Citizens may use one of two avenues to achieve this: (1) applying to COSEWIC for an assessment, or (2) applying to COSEWIC for an imminent threat assessment for the purpose of having the species listed on an emergency basis.

Applying to COSEWIC for an assessment. Under section 22 of SARA, any person may apply to COSEWIC for an assessment of the status of a wildlife species.[526] These applications must include supporting information to justify the assessment.

COSEWIC must assess the species within a year of the application, and send the resulting assessment to the Minister of the Environment and Climate Change and the Canadian Endangered Species Conservation Council (CESCC), which includes the Minister of Fisheries and Oceans, the Minister responsible for Parks Canada (currently the Minister of the Environment and Climate Change), and any relevant provincial or territorial ministers.[527] If a citizen requested the assessment, COSEWIC must also inform the citizen of the results.[528]

Once COSEWIC submits its assessment, the Minister has ninety days to inform the public on how ECCC intends to respond to the assessment and, to the extent possible, provide timelines for further action.[529]

It is the Minister of the Environment and Climate Change's responsibility to send the COSEWIC assessment to the Governor in Council, along with a recommendation on a course of action.[530] However, in the case of aquatic

species at risk, the Minister of Environment and Climate Change must first consult with the Minister of Fisheries and Oceans and await their listing recommendation, before making a recommendation to the Governor in Council. There is no statutory timeline for either of these recommendations to be made.[531] It is at these points in the process that many assessments get stuck, and this is a major weakness in SARA (discussed further below).

Once the Minister has forwarded the COSEWIC assessment and a recommendation to the Governor in Council, the Governor in Council then has nine months to review the assessment and decide whether to add the species to the list or send the matter back to COSEWIC for further information or consideration.[532] If the Governor in Council decides to amend the list, it does so by order. If it decides not to amend the list, or refers the matter back to COSEWIC, the Minister must set out the reasons for this decision in the public registry.[533]

Applying to COSEWIC for an imminent threat assessment. Under section 28, any person who is concerned about an imminent threat to the survival of a wildlife species may apply to COSEWIC for an "imminent threat assessment" in order to have that species listed on an emergency basis.[534] As in a section 22 assessment, the application must be accompanied by supporting information indicating that there is an imminent threat to the species.

COSEWIC must provide the applicant, the Minister of the Environment and Climate Change, and CESCC with a copy of the assessment, and also publish the assessment in the public registry. There is no statutory timeline for COSEWIC to provide the assessment, unlike in a standard application under section 22.

Listing will occur only if: (1) the Minister is of the opinion that there is an imminent threat to the survival of the species, based on the COSEWIC assessment or the Minister's own information; and (2) the Governor in Council accepts the Minister's recommendation to list the species. If the Minister does believe there is an imminent threat, the Minister must, on an emergency basis, recommend to the Governor in Council that the species be added to the Schedule 1 list.[535] In this situation, the Minister can bypass the regular steps required before making this recommendation – taking the COSEWIC assessment into account, consulting the competent minister, and consulting any relevant wildlife management board – thus accelerating the process.[536]

If the Governor in Council accepts the Minister's recommendation, it

may amend the Schedule 1 list by order to include the species or to change the species' status.[537] The listing process is again accelerated as the amendment is exempted from the regular process of examining new regulations under the *Statutory Instruments Act,* although the nine-month timeline on the Governor in Council's decision still applies in the imminent threat context.[538] If the Governor in Council decides not to amend the list or refers the matter back to COSEWIC, the Minister must publish reasons for this decision in the public registry.[539]

Step 2: Identifying critical habitat

Once a species is listed as Endangered or Threatened, or if the species is extirpated and the competent Minister (ECCC or, if it is an aquatic species, DFO) decides to try to restore local populations, the Minister is required to develop a recovery strategy. The recovery strategy must identify the species' critical habitat to the extent possible based on the best available information.[540] The recovery strategy must also state when one or more action plans related to it will be completed.[541] It must be posted to the public registry within two years of listing if the species is Extirpated or Threatened, and within one year of listing if the species is Endangered.[542] The recovery strategy then undergoes a sixty-day public comment process, followed by thirty days for the Minister to consider comments and make changes, after which the Minister must post a final version.[543]

The competent Minister must prepare one or more action plans based on the recovery strategy within the time frame stated in that document.[544] The action plan must identify the species' critical habitat to the extent possible based on the best available information.[545] It must also identify any portions of the critical habitat that have not been protected.[546] Action plans must be posted to the public registry and undergo a sixty-day public comment period. The Minister has thirty days to consider comments and make changes before finalizing the action plan by posting a copy to the public registry.[547]

When updated critical habitat information becomes available, amended recovery strategies and/or action plans are developed and published.

Step 3: Legally protecting critical habitat

Within 180 days of publishing the final recovery strategy or the final action plan, the competent Minister must legally protect the critical habitat, either by issuing an order or by enacting a regulation.[548] SARA requires that critical

habitat under federal jurisdiction (i.e., on federal land, or the habitat of migratory birds and aquatic species) be protected 180 days after the final recovery strategy or final action plan identifying the critical habitat is posted to the Species at Risk public registry.[549]

The Minister may also make "any regulations that are necessary ... for the purpose of implementing the measures included in the action plan," and draw on any powers he or she has under any other act of Parliament to implement the plan.[550]

The legal protections in SARA are restricted to species found on federal land (e.g., in national parks, National Wildlife Areas, or Migratory Bird Sanctuaries), and to species that fall under federal legislative powers, such as aquatic species and migratory birds. These protections generally do not apply to provincial lands, unless there is a Governor-in-Council order that they do so.

Emergency Protection Orders

Outside of the critical habitat protection process, SARA also provides an emergency protection order power in the case of a species facing "imminent threats to its survival or recovery." If the competent Minister believes this to be the case (in the case of aquatic species, the Minister of Fisheries and Oceans), the Minister is obliged to consult with all other competent Ministers and then recommend that the Governor in Council make an emergency order to protect a listed wildlife species.[551] The Governor in Council may issue an emergency order on the basis of this recommendation.

For aquatic species, migratory bird species protected by the *Migratory Birds Convention Act*,[552] and any other species on federal land or in the exclusive economic zone or continental shelf, this order may:

- identify necessary habitat for the survival or recovery of the species to be protected
- prohibit activities that may adversely affect the species and identified habitat
- require actions to protect the species and identified habitat.[553]

Emergency orders for any species not in the listed areas may also identify necessary habitat and prohibit certain activities, but they are not permitted to require protective actions.[554]

This tool has been used only twice – to help protect the Greater Sage-Grouse and the Western Chorus Frog – and was used only after litigation

against the government was initiated.[555] There is no limit on the time it may take for the Minister to develop an opinion on whether the species faces imminent threat, which has resulted in significant delays in protection.[556]

In 2018, the Governor in Council declined to issue an emergency order to protect Southern Resident killer whales (SRKWs), despite a recommendation to do so by the Minister of Environment and Climate Change and the Minister of Fisheries and Oceans.[557] Around the same time, the federal government announced a suite of protection measures to protect the SRKWs (see Case Study 6).[558]

CASE STUDY 6 Northern and Southern Resident killer whale critical habitat

Northern Resident killer whale populations are listed under the *Species at Risk Act* as Threatened and Southern Resident populations as Endangered. Critical habitat for these populations was first identified within the SARA recovery strategy in 2008 and designated by a critical habitat order in 2009, which was expanded in 2018.[559] However, there are few spatial protections for these populations within the identified critical habitat.

Southern Resident killer whales

Southern Resident killer whales (SRKWs) have been listed as Endangered under SARA since 2002. In the years since then, their population has declined from eighty-five to seventy-three, and there are ongoing concerns about the whales' malnutrition, failure of most pregnancies, and death of females of reproductive age.[560] The three most important threats facing SRKWs appear to be lack of availability of chinook salmon, their primary prey; acoustic and physical disturbances from vessels; and environmental contamination.[561]

The conservation sector has undertaken several legal challenges in order to achieve meaningful protection for SRKWs. These resulted in a finalized recovery strategy in 2008 (amended in 2011) and an action plan in 2017.[562] However, despite the existence of both a recovery strategy and an action plan, as well as the automatic legal protections afforded to critical habitat, by 2018 very few concrete actions had been taken to address the threats identified in the recovery strategy.[563] In addition, the Trans Mountain Expansion Project posed new threats to SRKWs, including an anticipated sevenfold increase in tanker traffic through SRKW critical habitat, which

would increase the level of physical and acoustic disturbance as well as the risk of oil spills.[564]

In early 2018, five conservation organizations petitioned the Minister of Fisheries and Oceans and the Minister of Environment and Climate Change, requesting that they recommend the issuance of a SARA section 80 emergency order to protect SRKWs.[565] Over the summer of 2018, the threats to SRKWs and their decline gained national attention and intense public interest when an orca known as Talequah, or J35, mourned the death of her thirty-minute-old calf by carrying it with her for seventeen days.[566]

In November 2018, seven months after receiving the section 80 petition and following the initiation of further litigation, the Governor in Council decided not to issue the order, even though the competent ministers recommended that it be made.[567] However, the federal government released a suite of measures designed to protect SRKWs later that same year, including:

- expansion of SRKW critical habitat at the end of 2018, as noted above[568]
- area-based fishing closures for chinook salmon[569]
- a conservation agreement under section 11 of SARA between DFO and Transport Canada and fourteen representatives of the shipping sector, to take measures to support the recovery of SRKWs (the agreement is voluntary and will last for five years)[570]
- amendment of the *Marine Mammal Regulations* to introduce mandatory approach distances for marine mammals[571]
- a ministerial order under the *Canada Shipping Act, 2001* setting out mandatory approach distances within SRKW critical habitat, as well as interim sanctuary zones where vessel traffic is prohibited (these measures have been renewed and expanded in subsequent years and are covered in detail in "Regulations under the *Canada Shipping Act, 2001*" below).

Despite these measures, the total SRKW population declined from seventy-five in 2018 to seventy-three at the end of 2019.[572] Anthropogenic pressures are expected to increase within SRKW critical habitat, including the Trans Mountain Expansion Project, which is proceeding, and a potential new marine shipping terminal proposed by the Vancouver Fraser Port Authority, which would contribute to increased shipping traffic in the area.[573]

Northern Resident killer whales

As mentioned above, the federal government identified and protected critical habitat areas for both SRKWs and Northern Resident killer whales (NRKWs)

in 2009, and expanded the area in 2018. Beyond this, the federal government has taken few other concrete measures to protect the species. However, there are other measures that offer some spatial protection to NRKWs.

The Robson Bight (Michael Bigg) Ecological Reserve (a provincial protected area) was established in 1982 to protect a portion of western Johnstone Strait and the foreshore near Robson Bight, where important NRKW rubbing beaches are located. The ecological reserve is closed to the public, and boat traffic is asked to refrain from entering, though some fishing vessels continue to have grandfathered access to the reserve.[574] In addition, a Robson Bight Warden Program has been in operation since 1987. Since 2005, the program has been operated by the Cetus Research and Conservation Society. Wardens patrol the reserve perimeter to ensure that no boats enter, and to conduct monitoring activities.[575]

The importance of the Johnstone Strait area to NRKWs was assessed during 1991–92 by a joint federal and provincial initiative, the Johnstone Strait Killer Whale Committee.[576] The committee developed management recommendations to mitigate human impacts on the whales in the area. One of the key recommendations was the establishment of a Special Management Zone in the strait, and establishment of a seasonal patrol vessel program to monitor whale-oriented vessel activity and mitigate potential disturbance. The area identified as critical habitat encompasses the area recommended
as a Special Management Zone.

An additional set of guidelines has been developed to minimize disturbance to whales in the Special Management Zone in Johnstone Strait from June through November.

Strengths of Critical Habitat Protection

The strengths of critical habitat protection stem from the strong legal framework behind this designation. First, it is a legislative requirement that critical habitat for listed species be identified in the recovery strategy or in the action plan.[577] The *Species at Risk Act* also includes mandatory legislated timelines for identifying critical habitat, though there are some gaps in these timelines (described further below). It is an offence under SARA to destroy any part of the critical habitat of any listed endangered, threatened, or extirpated species unless permitted under the act, or if the specific conditions set out in the act are met.[578]

Another strength of the designation is that critical habitat includes both geospatial and geophysical features, such as important feeding areas. Critical habitat also includes availability of prey, water quality, and the acoustic environment, requiring that anthropogenic noise levels do not interfere with a species' life functions.[579]

Weaknesses of Critical Habitat Protection

Despite the strengths noted above, the implementation of SARA has been overwhelmingly disappointing. Some of the main problems include a failure to list species that are economically, socially, or culturally important; a failure to meet statutory deadlines in protecting critical habitat; and a failure to successfully investigate and enforce SARA infractions.

While COSEWIC has assessed many marine populations as being at risk, very few of these populations are ultimately listed under SARA. A 2022 report from the Commissioner for the Environment and Sustainable Development found that DFO "had yet to provide listing advice for 50 percent (116 of 230) of the aquatic species that had been assessed as being at risk" since SARA came into force in 2004.[580] Even when species are listed, the CESD found that the process took DFO on average 3.6 years but sometimes much longer, during which time species receive no protection from SARA.[581]

As noted above, the listing process stalls after the Minister of the Environment and Climate Change has received COSEWIC's report, because there is no deadline by which the Minister must send the COSEWIC report and listing recommendation to the Governor in Council. This stalling point appears to sometimes stop species from being listed altogether, and analyses of the listing process have shown biases in listed populations. For example, fish species are generally unlikely to be listed under SARA, and listing is even less likely for fish species and populations that are commercially important.[582] Similarly, the CESD has found that of twelve fish species they examined in detail, "the department's advice was not to list any of the species that had significant commercial value."[583]

Once species are listed, there are often further delays in protecting their critical habitat. There are many documented failures by the federal government to meet statutory deadlines for habitat protection. These are due at least in part to underfunding and understaffing of the relevant ECCC and DFO departments, signifying low government priority. Even when recovery strategies are developed, there is no mandatory timeline between publication of a recovery strategy and publication of the proposed action plan, although the recovery strategy must indicate when the action plan will be

published. This has resulted in lengthy delays in actually protecting species at risk. Delays appear to be particularly significant for marine species. In many cases, the development of proposed and final recovery strategies for threatened and endangered marine fish species has taken almost double the amount of time specified in the act.[584]

Litigation under SARA brought forward by environmental organizations has been the main spur to action for DFO and ECCC in completing of recovery strategies, action plans, and critical habitat designation for species at risk.[585] A recent Federal Court decision found that DFO and ECCC were "egregious" in their failure to meet statutory timelines for protecting habitat. The court has repeatedly identified "an enormous systemic problem" with ECCC and DFO, finding in one case that there were "167 species at risk for which recovery strategies have not yet been developed."[586] The CESD also noted in its fall 2018 report that DFO "had not met most deadlines for finalizing required recovery strategies and action plans."[587] Outside of court proceedings, there appears to be no penalty for this delay.

Finally, enforcement of SARA protections has also been minimal. In the first thirteen years after SARA was enacted, there were only ten convictions for violating the act, despite the fact that investigators opened 444 cases in that time period.[588] The CESD has also found that DFO does not have enough staff to enforce compliance with SARA or with the *Fisheries Act*.[589]

Regulations under the *Canada Shipping Act, 2001,* SC 2001, c 26 | Transport Canada

The *Canada Shipping Act, 2001* is the primary statute on marine navigation and shipping. One of its legislated objectives is to "protect the marine environment from damage due to navigation and shipping activities." To this end, the act offers various regulatory mechanisms to protect the environment, including several tools that are related to spatial protection of marine areas.[590]

Several sections of the *Canada Shipping Act, 2001* allow the government to make regulations on spatial marine protection:

- Section 10.1 allows the Minister of Transport to make an interim order that brings into force any of the regulatory powers under the act that deal with risk to marine safety or the marine environment. The Minister has used this order power in conjunction with the regulatory powers under sections 35.1 and 136 of the act to protect Southern Resident killer whales (see Case Study 7).

- Section 35.1 sets out the regulatory powers available to the Minister of Transport to protect the marine environment. Under this section, the Minister may establish compulsory and recommended shipping routes, and restrictions or prohibitions on operation, navigation, anchoring, mooring, or berthing of vessels.
- Section 120(1) allows the Minister of Transport to make regulations on vessel safety, including setting out compulsory and recommended routes, and regulating marine traffic to protect environmentally sensitive areas.[591]
- Section 136(1)(f) allows the Minister of Transport to regulate or prohibit navigation, anchoring, mooring, or berthing of vessels to promote safe and efficient navigation and protect the public interest and the environment. The federal government has used this regulatory power to restrict

TEXT BOX 10

Oil Tanker Moratorium Act

The federal *Oil Tanker Moratorium Act,* passed in 2019, formalized a long-standing *de facto* moratorium on crude oil tanker traffic on the North Coast of British Columbia.[592]

Public concern over oil tanker traffic and the risk of spills in Hecate Strait, Queen Charlotte Sound, and Dixon Entrance first arose in the late 1960s, after oil was discovered in Prudhoe Bay, Alaska, and plans were made to build an oil pipeline with a marine terminal in Valdez, Alaska. As concerns rose to the provincial and then national level, the BC legislature passed a unanimous motion opposing oil tanker traffic in 1971; this was followed by a similar unanimous motion in the House of Commons in 1972.[593]

After the terminal in Valdez was built, Canada negotiated with the US Coast Guard to exclude Valdez tankers from BC waters, eventually establishing a voluntary Tanker Exclusion Zone in 1985.[594] The exclusion zone is still in place, and loaded oil tankers travelling between Alaska and Washington are required to travel outside it, west of Vancouver Island and Haida Gwaii.[595]

The Tanker Exclusion Zone does not apply to tankers travelling to or from Canadian ports, a gap that appears to have been closed between the 1980s and 2000s through a *de facto* oil tanker moratorium policy on British Columbia's North Coast.[596] However, when the Enbridge Northern Gateway

navigation in certain areas through the *Vessel Operation Restriction Regulations,* and to prohibit anchorage in certain locations through the *Anchorage Regulations* (described below).[597] As noted above, the Minister of Transport has also relied on this provision to issue an order protecting Southern Resident killer whales.

The *Vessel Operation Restriction Regulations* permit the Minister of Transport to place spatial restrictions on non-commercial vessels, including no-go zones for all vessels, prohibited areas for motorized vessels, speed-restricted areas, and restrictions on certain recreational activities like water skiing. Local authorities, defined to include local governments and departments of provinces, territories, or the federal government, can apply to Transport

Pipelines project was proposed in the mid-2000s, which would have introduced 190 to 250 new tanker calls per year in Kitimat, British Columbia, there were calls to entrench the *de facto* moratorium in law. Between 2008 and 2014, six private member's bills were introduced for this purpose, and in 2010 a majority of the House of Commons passed a motion calling for the enactment of the ban.[598]

The *Oil Tanker Moratorium Act,* introduced by the federal government in 2017 and enacted in 2019, prohibits vessels carrying more than 12,500 tonnes of crude or persistent oil, or a combination of the two, from mooring, loading, or unloading at any port or marine installation on British Columbia's North Coast (from the Canada-US Alaskan border to the northern tip of Vancouver Island, including Haida Gwaii).[599] It also prohibits the transport of oil between tankers and ports or marine installations, closing a potential loophole where crude or persistent oil could be shuttled to or from tankers moored offshore. The 12,500-tonne threshold ensures that necessary supplies are still able to reach northern coastal communities.[600] While tanker travel in the area is technically not illegal, in practice the combination of the Tanker Exclusion Zone and the *Oil Tanker Moratorium Act* greatly reduces the potential for oil tankers to travel along the North Coast.

Canada for boating restrictions in particular areas.[601] Transport Canada has prepared a guide for local governments on making these requests.[602]

A number of voluntary measures can be and have been used to protect marine areas, such as voluntary slowdowns or areas to be avoided, as communicated by Notices to Mariners issued by the Canadian Coast Guard and used to provide vessels with information about navigational safety.[603] Although they are not legally binding, there appears to be high compliance with these measures, and they may eventually become law, as in the case of the *Oil Tanker Moratorium Act* (see Text Box 10).

Examples in British Columbia

Voluntary and regulatory spatial protection measures have been put in place in several instances on the Pacific coast. While these examples are small in some instances, they demonstrate the potential of these tools to create exclusion zones, speed limits, and anchorage restrictions that can be used to protect marine wildlife.

- The following measures were taken under the *Vessel Operation Restriction Regulations:* (1) prohibition on vessel traffic in an area in Porteau Cove Provincial Park;[604] (2) a maximum speed limit of 6 kilometres per hour in Pendrell Sound, established to protect Pacific oyster beds and shellfish farms from boat wake damage;[605] and (3) a prohibition on gas and electric motor boats in Crescent Beach, Boundary Bay, and Cowichan Bay.[606]
- Under the *Anchorage Regulations,* a prohibition was made on anchoring of any vessel in Parry Bay (southwest of Victoria).[607]
- A voluntary slowdown area within Haro Strait was established in 2017 as a study by the Port of Vancouver ECHO Program, and continued in 2018. Information about the slowdown is communicated through Notices to Mariners.[608]

Strengths of Regulatory Tools to Address Shipping

As navigation and shipping fall under the authority of Transport Canada, regulatory tools under the *Canada Shipping Act, 2001* are one of the few ways to protect marine areas from shipping traffic and its impacts. The broad and comprehensive nature of the regulatory powers under the act are sufficient to give the Minister of Transport legal authority to protect areas from shipping, navigation, and anchorage, particularly within Canada's internal waters and territorial sea.

CASE STUDY 7 Minister of Transport – interim order for the protection of killer whales (*Orcinus orca*) in the waters of Southern British Columbia

In 2019, as part of a coordinated effort with the Minister of Fisheries and Oceans and the Minister of Environment and Climate Change, the Minister of Transport issued an order to protect Southern Resident killer whales in British Columbia. The order was issued under section 10.1 of the *Canada Shipping Act, 2001* and relied on the government's regulatory powers under sections 35.1(1)(k) and 136(1)(f). It introduced the following measures for a five-month period in the Southern Georgia, Haro, and Juan de Fuca Straits, as well as the waters southwest of Vancouver Island:[609]

- a requirement that vessels maintain a 400-metre approach distance from SKRWs within critical habitat[610]
- a requirement that whale-watching boats maintain a 200–400-metre approach distance within critical habitat, if so authorized[611]
- the introduction of "interim sanctuary zones" for SRKWs through creation of vessel no-go zones in the waters off of Saturna Island, Pender Island, and Swiftsure Bank.[612]

The measures have been renewed each year since 2019, with additional measures added. In 2020, the geographic scope of the measures was extended further north, the interim sanctuary zones were extended by a month, until November 30, 2020, and the 400-metre approach distance requirement within critical habitat was applied for the full calendar year.[613] In 2021, the 400-metre approach distance requirements were extended to Howe Sound and Barkley Sound.[614] In 2022, the same measures were put in place, with the addition of two new seasonal slowdown areas near Swiftsure Bank.[615] DFO has also released complimentary recreational and commercial salmon fishing closures in key areas for SRKWs.[616]

The federal government has also introduced year-round voluntary measures requesting that vessels reduce their speed to less than seven knots when within 1,000 metres of a whale, switch engines to neutral when a whale is within 400 metres, and turn off echo sounders and fish finders when not in use.[617]

Weaknesses of Regulatory Tools to Address Shipping

While Canada has extensive powers to regulate shipping activities within its inland waters and territorial sea, these powers are more limited in the EEZ. Under international law, foreign vessels have freedom of navigation within coastal states' exclusive economic zone (EEZ), which is between 12 and 200 nautical miles offshore.[618] Although Canada does have a right and duty to protect the marine environment within the EEZ, the government is reluctant to act on this duty in a way that would interfere with the ability of foreign vessels to navigate where they choose.[619]

In addition, the regulatory powers that do exist are infrequently. Transport Canada and the shipping industry prefer to use voluntary measures and agreements rather than regulatory measures. Where government action is taken to protect marine areas, it is largely done through order or departmental policy, meaning that there are few or no long-term legislated protections in place. Thus, the discretionary nature of these protections impact their long-term efficacy since governments change over time. Transport Canada's dual environmental and economic mandates may also pose challenges to environmental protection.

4

PROVINCIAL LAW

BRITISH COLUMBIA IS A LEADER in protecting land and wildlife in North America, including in the ocean. The province has the third-largest parks system in North America, after the national park programs in the United States and Canada, covering 15 percent of British Columbia's land mass and 3.2 percent of its marine areas.[620] The province's first marine protected area (MPA) was designated in 1981 as part of Porteau Cove Provincial Park, and there are now more than 185 provincially designated MPAs protecting 28 percent of the British Columbia coastline.[621] These areas support coastal rainforests; habitat for marine wildlife such as seabirds, sea lions, and sockeye salmon; and public access and recreation.[622]

The Province of British Columbia exercises considerable jurisdiction over the ocean and coastal area within its boundaries. The province is responsible for regulating many marine activities, such as aquaculture, aquatic plant harvesting, wharves, marinas, renewable energy, oil and gas development, and more, and also has Crown jurisdiction over the foreshore, which is usually classified as provincial Crown land.[623]

The absence of any legal framework specifically designed to govern and manage the BC coast is a key challenge. In fact, British Columbia is one of the few coastal jurisdictions in North America that does not have a coastal law or strategy. It is often up to local governments to address coastal planning issues within their limited jurisdiction; as a result, the province may not be equipped to address the many threats that face the coast and ocean, or to comprehensively identify and protect vulnerable coastal ecosystems.

In 2020, however, the BC government committed for the first time to developing a coastal marine strategy for the province, in partnership with Indigenous nations and other orders of government, and, at the time of writing, this strategy is under development.[624]

Another key challenge to provincial marine conservation efforts is that the province has no authority over federally regulated ocean activities such as shipping and marine fisheries (though the province does have jurisdiction over freshwater recreational fishing). As a result, provincial MPAs are often open to these activities, weakening their contribution to ecosystem recovery. A 2011 study of commercial fisheries closures in BC MPAs found that, with one exception, "all of the MPAs with management plans that stated the intent to completely prohibit commercial fishing were found to lack the necessary fisheries closures."[625]

The BC government has reportedly attempted to address this problem by requesting federal fisheries closures in a number of provincial MPAs, beginning in 1995 and continuing to the present. In particular, the province initially intended that ecological reserves would act as a tool to create "no-take" areas, and that restrictions on bottom trawling and commercial harvesting of intertidal clams would be put in place in other provincial MPAs. At the time of writing, it appears that no fisheries closures have been implemented within provincial MPAs, though some areas may be incidentally protected by species-specific fisheries closures.

Commercial shipping receives even less attention within provincial (as well as federal) MPAs, and coordination between Transport Canada and other agencies to restrict shipping within MPAs rarely occurs.

Nevertheless, British Columbia has been a leader in marine protection in Canada, and in many cases has entered partnerships with federal and Indigenous governments where it does not have the jurisdiction to act on its own. The province's attempts to request federal fisheries closures within provincial MPAs is an example of this, as well as the strong role it has played in the Marine Plan Partnership (MaPP) on British Columbia's North and Central Coasts, continuing its partnership with Coastal First Nations after the federal government removed funding from the project, and completing detailed spatial plans for the region.

PROVINCIAL PROTECTED AREA DESIGNATIONS

The province's main legislative tools for protecting the coast and ocean are provincial park designations, conservancies, and ecological reserves. These

designations are all overseen by BC Parks, and have been used to designate a significant number of protected areas along the coast. The Ministry of Water, Land and Resource Stewardship has also protected significant coastal areas through its Conservation Lands program, which includes wildlife management areas and reserves and withdrawals of Crown land. Finally, a suite of other tools are also available to protect marine areas, including executive Orders in Council, Wildlife Habitat Areas related to forestry, and heritage conservation designations. Table 8 outlines these different tools and their enabling statues and responsible authorities, which are discussed in detail in the text below.

Ecological Reserves: *Ecological Reserve Act,* RSBC 1996, c 103 | Ministry of Environment and Climate Change Strategy

Ecological reserves are protected areas chosen to maintain biological diversity, protect genetic material, and support scientific research and education.[626] They do this by preserving representative and special ecosystems in British Columbia, including rare, endangered, or unique plant and animal species, and rare or unique natural phenomena. Ecological reserves are among the strictest provincial protective areas, as all provincially regulated extractive or consumptive activities are prohibited.[627]

The Province of British Columbia designated its first ecological reserves as part of the International Biological Program (IBP), an international effort between 1964 and 1974 to conserve and grow natural resources for human benefit.[628] The Conservation of Terrestrial Communities, a subcommittee of the IBP, identified biologically important sites around the world to protect and conserve.[629] The IBP identified nearly a thousand sites in Canada, many of them in British Columbia. In order to legally protect these areas, the provincial government began setting aside ecological reserve land under the *Land Act* and developing a new protected area statute. British Columbia passed the *Ecological Reserve Act* in 1971, and designated the first twenty-nine ecological reserves that same year.[630]

The original mechanism for designating ecological reserves was through an Order in Council under the *Ecological Reserve Act.* An Order in Council is a directive issued by the Lieutenant Governor in Council on the advice of the Cabinet of British Columbia, and is not discussed by the provincial Legislative Assembly before being implemented. These orders, along with orders used to modify ecological reserves, were then published in the *BC Gazette.*[631] Members of the public could suggest new reserves by submitting a proposal to BC Lands, which originally managed ecological reserves (responsibility was transferred to BC Parks in the 1980s).[632]

TABLE 8 Provincial legal designations for coastal and marine protection

Designations	Statutes	Responsible authorities	Designations in BC	
			Total	Coastal and marine areas
Ecological reserves*	*Ecological Reserve Act* *Protected Areas of British Columbia Act*	Ministry of Environment and Climate Change Strategy – BC Parks	140	29
Provincial parks*	*Park Act* *Protected Areas of British Columbia Act*	Ministry of Environment and Climate Change Strategy – BC Parks	645	118
Recreation areas	*Park Act*	Ministry of Environment and Climate Change Strategy – BC Parks	2	0
Conservancies*	*Park Act* *Protected Areas of British Columbia Act*	Ministry of Environment and Climate Change Strategy – BC Parks	156	93
Wildlife Management Areas*	*Wildlife Act*	Ministry of Forests	31	10
Reserves and withdrawals of Crown land	*Land Act*	Ministry of Water, Land and Resource Stewardship	4,389	Not available
Prohibition of use of Crown land	*Land Act*	BC Lieutenant Governor in Council	0	0
Environment and land use designations	*Environment and Land Use Act*	BC Lieutenant Governor in Council	84	Not available
Wildlife Habitat Areas	*Forest and Range Practices Act*	Ministry of Forests	2,419	Not available
Provincial heritage sites*	*Heritage Conservation Act*	Ministry of Water, Land and Resource Stewardship	64	7

* indicates long-term designation

In 2000, the province passed the *Protected Areas of British Columbia Act,* which consolidated most existing provincial protected areas, including ecological reserves, into one statute. New and established ecological reserves were listed in Schedules A and B to the act, providing more permanent protection to these areas.[633] This is because Orders in Council may be rescinded on the recommendation of the Cabinet of British Columbia, whereas statutes (including their schedules) can be amended only through the legislative amendment process.

The new *Protected Areas of British Columbia Act* resulted from the final report of the BC Parks Legacy Panel, which recommended that the province consider enacting new umbrella legislation to manage the protected area system as a whole.[634] The panel also drew on the province's Protected Areas Strategy, an aspect of the provincial land-use planning process undertaken in the 1990s, which included the goal of protecting 12 percent of British Columbia's land base by 2000.[635] Today, new ecological reserves may be established either by Order in Council or by naming and describing the reserve in schedules to the *Protected Areas of British Columbia Act.*

There are currently 148 ecological reserves in British Columbia, 20 of which have a marine component. Despite their large number, however, ecological reserves cover an area of only 1,603 square kilometres, 1 percent of the total area of lands and waters protected under BC legislation. This means that most ecological reserves are very small.

Marine Examples of Ecological Reserves

Examples of ecological reserves with marine components include, among others:

- Ballingall Islets Ecological Reserve, established in 1963 as a nature park and changed to an ecological reserve in 2000. This area comprises a small rocky archipelago off the west coast of Galiano Island, and is in place to protect nesting cormorant colonies.[636]
- Rose Islets Ecological Reserve, established in 1971. This area protects five low rocky islets located off the west coast of Galiano Island that are important seabird nesting habitat.[637]
- Satellite Channel Ecological Reserve, established in 1975. This area is located between the Saanich Peninsula and Salt Spring Island and consists of only the sea floor. This is the only subtidal provincial protected area in BC. Because of the fine sediment in the area, there is a rich and diverse seafloor community, including molluscs and sea stars.[638]

- Race Rocks Ecological Reserve, established in 1980. This area is discussed in greater detail in Case Study 8.
- Checleset Bay Ecological Reserve, established in 1981. This area is located on the west coast of Vancouver Island and was originally established to provide sufficient, high-quality marine habitat for a reintroduced population of sea otters.[639] Over 98 percent of the protected area is marine.[640]

CASE STUDY 8 XwaYeN/Race Rocks Ecological Reserve

Race Rocks is an area in the Strait of Juan de Fuca with abundant marine life because of the strong tidal currents surrounding the Race Rock islets. These currents carry a nearly continuous supply of plankton that fish and seabirds come to feed on, and transient killer whales have also been observed in the area.[641] Northern abalone, an endangered species, is found in the area, and the islets are a haul out for Steller sea lions, a species of special concern under the *Species at Risk Act*.[642] The seabed surrounding Race Rocks is under provincial jurisdiction, while the federal government asserts jurisdiction over the water column. The area falls within the territory of at least four Coast Salish Indigenous nations, including T'Sou-ke Nation, Songhees Nation, Esquimalt Nation, and Beecher Bay First Nation.[643]

In 1894, a reserve was established on Great Race Rock Island under section 15 of the BC *Land Act,* setting aside provincial Crown land for use by the federal government to operate the Race Rocks lighthouse.[644]

The provincial Race Rocks Ecological Reserve was established in 1980 through a citizen-led campaign based at Pearson College on nearby Pedder Bay. The college continues to be involved in the reserve, acting as reserve warden on behalf of BC Parks by providing management and monitoring capacity as well as educational opportunities. The provincial ecological reserve includes the islets and physical seabed but not the water column. Portions of the original section 15 reserve were added to the ecological reserve in 1997, when the lighthouse was de-staffed, and the remainder of the section 15 reserve land was transferred to the ecological reserve in 2001.[645] Commercial finfish and shellfish fisheries closures have been in place in the area since 1990, and a Rockfish Conservation Area was established around

- Robson Bight (Michael Bigg) Ecological Reserve, established in 1982. Robson Bight is located in Johnstone Strait near Telegraph Cove. The area has been protected as key habitat for northern resident killer whales, and the beach is a known rubbing location. Access is restricted and there is a voluntary navigation closure in the area.[646]

Race Rocks in 2004.[647] Recreational hook and line fishing has been prohibited in the area since 2005.[648]

Fisheries and Oceans Canada (DFO) identified Race Rocks as one of the earliest candidate sites for *Oceans Act* MPA designation, but though the area has been the subject of two MPA planning processes since 1998 at the time of writing, it has not yet been designated. Draft regulations were first published for public review in 2000, but the affected Indigenous nations objected to the designation because they had not been adequately consulted. DFO's original MPA proposal stated that these Indigenous nations had "volunteered to forgo" traditional fisheries for food and social and ceremonial harvesting, despite the fact that the nations had not agreed to this.[649]

The process was put on hold, and DFO continued to consult with the four Indigenous nations until 2008, when the five parties produced a draft, unsigned co-management agreement. DFO then reopened dialogue with other stakeholders, including environmental groups and industry stakeholders. A draft terms of reference was produced in 2012 to guide the Race Rocks Government–First Nations Management Board. It stipulates that the parties will operate on a "government to government basis within the framework of the Constitution of Canada"; however, the Minister of Fisheries and Oceans retains decision-making capacity.[650] Negotiations have continued since that time, without resulting in an MPA designation.

The difficulties in the Race Rock example demonstrate the importance of the federal and provincial governments' engaging with Indigenous nations on a government-to-government basis, and prioritizing collaborative management and governance. This includes shared decision-making, capacity support and training for Indigenous representatives, and ensuring that Indigenous nations are also in the room while DFO engages with other stakeholders.[651]

Strengths of Ecological Reserves

The primary purpose of ecological reserves is to protect ecosystems, plant and animal species, and other natural features. This purpose is reflected in the strong protection standards afforded to ecological reserves, where all provincially regulated extractive and consumptive activities are prohibited. The legal mechanism used to achieve these standards is the exclusion of ecological reserve lands from disposition under the *Land Act, Forest Act, Water Act* (now the *Water Sustainability Act*), *Mineral Tenure Act, Coal Act, Petroleum and Natural Gas Act, Mining Right of Way Act,* and *Range Act.*[652] The Minister may close an ecological reserve to the public if it is necessary to protect the ecosystem.[653]

Although the provincial government has no authority to prohibit federally regulated activities, such as fishing and shipping, some ecological reserves are overlaid with federal fisheries closures such as Rockfish Conservation Areas. Race Rocks Rockfish Conservation Area is one such example.[654] The limitations of this layering approach are discussed further below.

Most ecological reserves are open to the public for hiking, photography, and other non-destructive activities. Camping, hunting, fishing, and motorized vehicles are generally prohibited,[655] and scientific research and educational activities require a permit.[656] The act imposes fines of up to $200,000 for violating regulations created under the act, and allows a continuing offence to be treated as separate offences for each day that it continues.[657]

Since the establishment of the *Protected Areas of British Columbia Act,* ecological reserves have more permanent legal protection. Whereas the provincial government can expand the borders of any ecological reserve by Order in Council, ecological reserves included in schedules to the act can be reduced or otherwise altered only by statutory amendment.[658]

Weaknesses of Ecological Reserves

One of the primary weaknesses of the ecological reserve system is the reserves' very small size, which affects their ability to effectively safeguard ecological viability. Smaller areas are less resilient and adaptive, and may not encompass the larger territories or multiple habitats that many species require throughout their life cycles.[659]

Weaknesses also emerge in the actual management of ecological reserves. The act does not set out any requirements for how ecological reserves are to be managed. For example, there is no statutory requirement to create management plans for ecological reserves; as a result, very few ecological reserves have management plans. A 2010 report by the BC Office of the Auditor

General found that less than 25 percent of ecological reserves had either a management plan or a management direction statement, and 71 percent of these management plans were over ten years old. While 69 percent of ecological reserves had a purpose statement, the Office of the Auditor General noted that these statements did not contain detailed management objectives or strategies, and did not allow for public input.[660]

Further, a lack of coordination between different levels of government can undercut management intent. Although the *Ecological Reserve Act* bans all extractive activities within the reserves, the limits to provincial jurisdiction mean this ban applies only to provincially regulated activities. According to a 2008 study, commercial fishing was allowed in twenty-one marine ecological reserves along the Pacific coast, despite the fact that this was contrary to the purpose of the act.[661]

Finally, for those ecological reserves that do have management plans, there is no information on how well those plans have been implemented, particularly within the marine areas of the reserves.

Parks (Classes A, B, and C) and Recreation Areas: *Park Act,* RSBC 1996, c 344 | Ministry of Environment and Climate Change Strategy

Provincial parks are the oldest protected areas designated and administered by the Province of British Columbia, with the first park being designated in 1911. Provincial parks and recreation areas also cover more area than any other type of provincial protected area designation, making up 75 percent, or over 105,100 square kilometres, of the total land and water protected by provincial laws.[662]

Under the *Park Act,* the provincial government may establish parks (Class A, B, or C) and recreation areas (as well as conservancies, covered below). The government may also designate land within any of these areas as "designated wildland areas," which are areas where no development may occur.[663] The BC Supreme Court has held that the purpose of the *Park Act* is to create a "framework for the creation and preservation of parkland for a variety of purposes," including but not limited to preservation of the natural environment.[664]

Most provincial parks in British Columbia are Class A parks. There are currently 630 Class A parks,[665] over 96 of which include marine areas.[666] Section 5(3) of the *Park Act* stipulates that all Class A parks listed under the *Protected Areas of British Columbia Act* schedules are "dedicated to the preservation of their natural environments for the inspiration, use and enjoyment of the public."[667]

Natural resources within Class A parks are protected, and may not be damaged in any way unless in accordance with a permit.[668] Additionally, a permit may not be issued unless, in the opinion of the Minister of Environment and Climate Change Strategy, "it is necessary for the preservation or maintenance of the recreational values of the park."[669] However, fish and wildlife may be hunted or taken in a Class A Park if it is in accordance with the *Wildlife Act.*[670]

Class A parks can be established by Order in Council under the *Park Act,* or through inclusion in Schedules C and D to the *Protected Areas of British Columbia Act.*

In Class B parks, natural resources are protected and must not be destroyed or damaged except with a permit. The requirements for issuance of a permit vary slightly from those for Class A parks: they may not be issued unless, in the opinion of the Minister, "to do so is not detrimental to the recreational values of the park involved."[671] This allows for more use than Class A parks. Class B parks are established by Order in Council under the *Park Act.*[672] There are two Class B parks in British Columbia, and neither has a marine component.[673]

In Class C parks, development is limited and natural resources protected to the same extent as Class A parks. Class C parks are also established by Order in Council under the *Park Act.* The defining feature of Class C parks is their management by a local board appointed by the Minister of the Environment and Climate Change Strategy. There are thirteen Class C parks in British Columbia.[674]

Recreation areas are lands designated for public recreational use, and are also established by Order in Council under the *Park Act.* The original function of the designation was to provide interim protection while resources in the area were surveyed in order to decide whether they should become fully protected areas or integrated resource management lands.[675] This may no longer be the case, however. Natural resources are protected in recreation areas and may not be damaged or exploited except with ministerial approval.[676] There are two recreation areas in British Columbia, and neither has a marine component.[677]

Parks may be categorized according to their main purpose. The main purposes are laid out in section 12 of the *Park Act* and range from environmental preservation, to historic or scientific preservation, to recreational opportunities. Parks may also have two or more purposes.[678] If the Minister chooses to categorize a park in this way, any development and improvement of the park must not restrict or inhibit the park's main purpose.[679] Section 5(3), noted above, may also be relevant in determining the purpose of a

Class A park if it is listed under a schedule to the *Protected Areas of British Columbia Act.*[680]

The *Park, Conservancy and Recreation Area Regulation* further regulates activities that are permitted in parks, conservancies, and recreation areas. They include requirements for fees and permitting; public conduct; the use of motor vehicles, boats, and aircraft; waste management; camping and picnicking; hunting and fishing, including the use of firearms; and the authority of park rangers.[681]

Marine Examples of Provincial Parks

Examples of provincial parks in British Columbia that protect marine areas include:

- Helliwell Provincial Park, established in 1966. This park is discussed in detail in Case Study 9 below.
- Broughton Archipelago Provincial Park, established in 1992, is located between northern Vancouver Island and Queen Charlotte Strait. It is BC's largest marine park and was established primarily to protect the marine ecosystem, as well as to provide marine recreation experiences and protect cultural features.[682]
- Discovery Island Marine Provincial Park, established in 1972, is located near Oak Bay, Victoria.
- Vargas Island Provincial Park, established in 1995, is located near Tofino on western Vancouver Island. The park protects the land, foreshore, and marine areas on the western side of Vargas Island.[683]

Strengths of Parks and Recreation Areas

Provincial parks, particularly Class A parks that are listed under the *Protected Areas of British Columbia Act,* are strongly protected. The Minister may issue permits authorizing activities that affect a park's natural resources only in specific circumstances. As described above, the Minister may issue permits for development within Class A parks only if they are necessary to maintain the park's recreational value and are consistent with the designated purpose of the park.[684] In Class B parks, the Minister may issue permits for activities that are not detrimental to the park's recreational value.[685] The exceptions are hunting, fishing, wildlife photography, and research, which do not require a permit.[686]

These restrictions on activities have been interpreted by courts in different ways, depending on the location of the park and the type of designation.

CASE STUDY 9 Helliwell Provincial Park

Helliwell Provincial Park on Hornby Island was established in 1966. Its primary purposes are to protect the rare and endangered coastal Douglas-fir ecosystem, and to protect a representative example of the Strait of Georgia Marine Ecosection within the protected area system. In 1997, Flora Islet was designated as part of the park through the Pacific Marine Heritage Legacy, a 1995 agreement between Parks Canada and the provincial government with the goal of creating a system of marine and coastal protected areas along the entire Pacific coast. Helliwell has also been identified as an Important Bird and Biodiversity Area (IBA), which is an unofficial designation provided by the IBA program to identify and conserve a global network of bird habitat.[687]

At 2,872 hectares, 2,803 hectares of which encompass marine areas, Helliwell is the largest marine protected area within the Strait of Georgia Marine Ecosection, and serves as important habitat for marine mammals such as harbour seals, killer whales, Dall's porpoises, harbour porpoises, sea lions, and sixgill sharks.

Helliwell Park is subject to a number of federal commercial fisheries closures, including anchovy, surf perch, pile perch, sea cucumber, octopus, scallop, squid, red urchin, Pacific oyster, and green urchin.[688] There is a voluntary closure on all recreational fishing that was initiated by local divers, which all park visitors are encouraged to respect. However, the marine boundaries of the park are not well known, making compliance more challenging.

The area around Flora Islet is managed as a marine protected area. It is one of only a few places in the world where divers can see sixgill sharks.

Helliwell Provincial Park includes three zone types: (1) an intensive recreation zone to provide access to the park; (2) a special feature zone protecting sensitive natural and cultural values; and (3) a natural environment zone to protect scenic values and provide recreational opportunities.[689]

In the case of Class A parks, the BC Supreme Court has held that the Minister can issue permits that would allow parkland to be disturbed or destroyed only if they are consistent with the purpose of the park and add to the "inspiration, use and enjoyment of the public."[690] The West Kootenay Community EcoSociety challenged the decision of the then Minister of

Water, Land and Air Protection to change the location of the access road into a Class A provincial park called Grohman Narrows. The access change would have assisted a developer in building a separate access to private land on the other side of the highway, and the change would have damaged the natural resources of the provincial park, including painted turtle habitat. The court held that the Minister could approve development for the purposes of adding to the "inspiration, use and enjoyment of the public," including the construction of facilities such as interpretative centres, walkways, and washrooms.[691] It found, however, that because the proposed development in this case was for the purpose of aiding a developer, and would damage park lands, waters, and resources, it was prohibited by section 9(7) of the *Park Act*.[692]

In addition, development or other consumptive use of designated wildland areas within provincial parks is completely prohibited, in order to preserve the area's ecosystem and natural scenery.[693]

Recreation areas have the same broad protection as provincial parks, but there is no limit to the Minister's ability to authorize activities affecting the area's natural resources.[694] This designation is thus more discretionary. In the legislation, Class C parks are also strongly protected; in reality, however, they are primarily small, community-oriented parks.

The *Park Act* also establishes large fines for breach of its provisions (a fine up to $1 million, a term of imprisonment up to one year, or both) or regulations (a fine up to $200,000), and each day the breach occurs is considered a separate offence.[695]

Weaknesses of Parks and Recreation Areas

One of the primary weaknesses of provincial parks and recreation areas, common to all provincially protected marine areas, is that the province has no authority over federally regulated activities. Therefore, the *Park Act* cannot specifically prohibit or manage industrial marine activities such as shipping, commercial fishing, offshore oil and gas, and mining from provincial parks. This leads to inconsistent protections and management of parks. For example, a 2011 study that examined all Class A parks with marine components at the time found that twenty-five of the parks – about one-quarter of all Class A parks with a marine component – identified commercial fisheries as a vulnerability within their management plans, and only sixteen of the parks with a marine component restricted some types of commercial fishing.[696] The effectiveness of such restrictions is unclear.

In 2010, the BC Auditor General's Office identified several shortcomings with the management of provincial parks, including the fact that less than

half of all Class A parks have a management plan or direction statement in place. The Auditor General also noted that many of the management plans that did exist were over ten years old.[697]

The BC government responded by updating its management planning policies, including developing a new Strategic Management Planning Policy for protected areas in 2013, which requires that "a management plan must be prepared and kept current for each protected area."[698] BC Parks now reports annually on the percentage of protected areas with valid management plans; in 2016–17 (the most recent report available at the time of writing), this number was up to 71 percent, and fifteen more management plans were approved for BC protected areas in 2018 and 2019.[699]

A further potential weakness is that provincial park legislation is quite discretionary with respect to permitted and prohibited. The decision to grant land or resource-use permits is based on preserving the park's recreational value, as opposed to ecological concern or environmental preservation.[700] This level of discretion may not necessarily result in meaningful protection of biodiversity, particularly for marine parks.

Finally, Class A parks designated by Orders in Council rather than under a schedule to the *Protected Areas of British Columbia Act* may be more vulnerable to development. In *Cypress Provincial Park Society v Minister of Environment, Lands and Parks,* the Friends of Cypress Provincial Park Society challenged the Minister's decision to grant a permit allowing the expansion of the ski resort within Cypress Provincial Park. The society argued that the park was dedicated to the preservation of its "natural environments for the inspiration, use and enjoyment of the public" as laid out in section 5(3), and that the permit was contrary to section 12(3) of the act, which prohibits any activity that will "restrict, prevent or inhibit the use of the park for its section 5(3) applied only to parks described in schedules to the *Park Act* (section 5(3) has been since amended to refer to schedules to the *Protected Areas of British Columbia Act*). Because Cypress Provincial Park was designated by Order in Council rather than by listing in a schedule, the court found that section 5(3) did not apply to Cypress Provincial Park and allowed the Minister's decision to stand..[702]

Conservancies: *Park Act,* RSBC 1996, c 344 | Ministry of Environment and Climate Change Strategy

The Province of British Columbia established conservancies as a new form of protected area designation under the *Park Act* in 2006, in response to concerns raised by Indigenous nations during land-use planning in the Great

Bear Rainforest on the North and Central Coast. Indigenous governments were interested in protecting new areas of land from commercial development, but were concerned that tools under the BC *Park Act* did not allow for Indigenous social, ceremonial, and cultural uses, or economic development.

As noted in the Introduction, the experience of Indigenous peoples with parks has often been challenging. Park designations have historically resulted in infringements of Aboriginal title by asserting limitations on the uses to which a First Nations people may put this portion of its territory. Despite long-standing provincial policy in British Columbia that Indigenous peoples may use protected areas for sustenance activities (including hunting and fishing), subject to conservation objectives, and for ceremonial and spiritual practices, the *Park Act* did not define or explicitly prohibit or allow these types of uses.[703] As a result, provincial staff were placed in a position of making determinations as to what Indigenous nations' uses were "traditional" or "sustenance," and therefore appropriate, from their perspective. Past experience and existing distrust between Indigenous nations and provincial agencies make this uncertainty an ongoing issue. Furthermore, the uses permitted by provincial policy are much less expansive than Aboriginal title in its full form.

By the early 2000s, it had become clear that if a full protection designation was to be applied in the Great Bear Rainforest, designations other than standard Class A provincial parks would be required.[704] As a result of negotiations between First Nations, environmental groups, and the Crown, the *Park Act* was amended in 2006 to create a new protection designation, referred to as a "conservancy."[705]

Conservancies provide ecological protection similar to that of a Class A park, while ensuring that Indigenous nations' exercise of Aboriginal title and rights is respected.[706] Because conservancies are created through legislation, and because restrictions on development are embedded in legislation, conservancies are at the highest end of the scale of durability, legal effectiveness, and comprehensiveness.

The collaborative process for selecting conservancies undertaken in the Great Bear Rainforest is still the norm, and the locations of new conservancies are chosen jointly by the province and individual Indigenous nations, with traditional uses as well as ecological benefits in mind.[707] Legally, new conservancies are designated by listing the area under Schedules E or F of the *Protected Areas of British Columbia Act*.[708] This seems to be the preferred route. Otherwise, an Order in Council under the *Park Act* can be used to establish a conservancy.[709]

Management plans are critical because they clarify the extent of Indigenous rights and uses in the conservancy. These include hunting, fishing, and trapping; harvesting of seaweed and medicinal plants; and cutting of trees for art or ceremony.[710] The management planning process requires that the province and Indigenous nation(s) agree to terms of reference and a timeline, after which the partners seek public input through a series of consultations.

Despite this collaborative process, the *Park Act* retains Crown jurisdiction over conservancies and their management: the act does not recognize the inherent authority of Indigenous nations and their laws.[711] Similarly, Fisheries and Oceans Canada retains authority over fisheries and most marine uses within conservancies.

The designation has been widely used since it was created, and now protects more land than any other designation besides Class A provincial parks, including one-third of the land in the Great Bear Rainforest and areas on Haida Gwaii. Conservancies are also used to protect areas in the Morice, Atlin Taku, Dease-Liard, and South Nass areas and areas in the Sea-to-Sky Corridor. There are now 156 conservancies in the province, 93 of which include coastal and marine areas such as coastlines, islands, fjords, estuaries, and intertidal zones.[712]

Marine Examples of Conservancies

Examples of conservancies that protect marine areas include:

- Hakai Lúxvbálís Conservancy, established in 2008, is located on the central coast and is co-managed by the Heiltsuk Nation and the Province of British Columbia.[713] This area is discussed in greater detail in Case Study 10, below.
- Fiordland Conservancy, established in 1987, is located on the central coast. It is in Kitasoo/Xai'xais territority and is co-managed by the Kitasoo/Xai'xais Nation and the Province of British Columbia.[714]
- Moksgm'ol/Chapple-Cornwall Conservancy, established in 2006, is located on the north coast in the territory of Gitga'at and Gitxaala Nations.[715]

Strengths of Conservancies

Like provincial parks, conservancies are broadly protected from harmful activities, though the Minister has the discretion to authorize a larger range of low-impact human activities. There is, however, a strict prohibition on

CASE STUDY 10 Hakai Lúxvbálís Conservancy

The Hakai Lúxvbálís Conservancy is the largest provincial marine protected area on the British Columbia coast, encompassing 120,000 hectares of land and sea. The area was first established as a recreation area in 1989, subsequently was established as a conservation study area in 2001 under the *Environment and Land Use Act* (see below), and then established as a conservancy in 2008.

The Haíłzaqv (Heiltsuk) Nation and the Province of British Columbia have an agreement to cooperatively manage the conservancy for conservation and recreational objectives for the area. This agreement allows the Haíłzaqv (Heiltsuk) Nation to access land and resources for their use within the Hakai Lúxvbálís Conservancy in accordance with their Aboriginal rights. The Haíłzaqv (Heiltsuk) Nation and BC Parks are developing a management plan for the northern part of the conservancy, as it falls within the Heiltsuk traditional territory.

The Wuikinuxv Nation, Haíłzaqv (Heiltsuk) Nation, and BC Parks are developing a management plan for the southern part of Hakai Lúxvbálís Conservancy collaboratively, as this part of the conservancy falls within the traditional territories of both Indigenous nations.

commercial logging, mining, and non-local hydroelectric power generation, as well as any activity that would interfere with the purposes of the conservancy.[716]

As mentioned above, conservancies allow traditional uses, making them "the first and only provincial-level [protected area] designation in Canada to explicitly incorporate Indigenous nations' interests into its legal framework."[717] Conservancies are also an example of shared governance between the Crown and Indigenous nations. Management plans are developed and drafted jointly by Indigenous nations and the province, and for some conservancies, Indigenous nations have entered into protected area collaborative management agreements with the province.[718] Indigenous nations can derive economic benefits from a range of activities within conservancies, subject to some constraints.[719]

TEXT BOX 11

Provincial Protected Area Boundary Adjustment Policy's process and guidelines

The Protected Area Boundary Adjustment Policy guides the process of adjusting the boundaries of Class A, B, and C parks, recreation areas, conservancies, ecological reserves, and protected areas established under the *Environment and Land Use Act.* It applies to boundary adjustments that are requested by a private or public proponent to allow for a development or activity that is not allowed under the protected area legislation.[720] It does not apply to adjustments made as a result of "administrative housekeeping," or to adjustments made to alleviate concerns for human health and safety.[721]

The policy sets out the guiding principles that the Minister will consider when deciding whether or not to amend the boundary of a protected area. These include the government's commitment to maintaining protected areas, consultation with First Nations and local governments, and public consultation and review.[722] The policy also sets out guidelines for submitting proposals and the process of review. It notes that the proposal is more likely to be rejected in the following cases:

- Existence of viable alternatives
- Significant First Nations opposition
- Significant public or local government opposition
- Significant adverse environmental or social effects that cannot be avoided, mitigated, or compensated for
- Insufficient overall benefit to the province.[723]

The provincial government can amend boundaries of protected areas listed under the Protected Areas of British Columbia Act by passing an amendment act to either expand, adjust, or decrease the total area within each protected area. For example, in 2016 Halkett Bay Marine Park was expanded by 136 hectares via the *Protected Areas of British Columbia Amendment Act, 2016* to include a glass sponge reef located in shallow waters near Gambier Island.[724]

Weaknesses of Conservancies

Conservancies suffer from the same weaknesses as other provincial marine protected areas, namely, the province's inability to regulate harmful marine activities, including fishing and shipping. As noted above, the provincial government has requested fisheries closures in several provincial protected areas, including two conservancies, with little progress.

Additionally, many conservancies with marine areas still do not have management plans.[725] Management plans are essential because they lay out the traditional uses that the partners support taking place in the area. They also clarify which activities are permitted within the area, and in what form, which is not established in the legislation. Thus, management plans define the level of protection for each area, and the absence of a management plan is significant.

OTHER PROVINCIAL DESIGNATIONS AND TOOLS

Wildlife Management Areas: *Wildlife Act,* RSBC 1996 c 488 | Ministry of Water, Land and Resource Stewardship

Wildlife Management Areas (WMAs) are protected areas whose primary objective is the conservation and management of fish, wildlife, and their habitats. They are the part of the province's Conservation Lands program, making up the majority of its "administered lands"[726] administered by the Ministry of Water, Land and Resource Stewardship, and are the strongest regulatory tool of this program (which also includes *Land Act* measures, discussed in the next section below). The primary purpose of WMAs is to conserve and manage important habit for the benefit of regionally or internationally significant fish and wildlife species.[727] There are thirty-one WMAs in BC, totaling 245,800 hectares of land.[728]

According to ministry policy documents, an area may be considered for designation as a WMA for one of the following reasons:

- The area's wildlife or habitat are of regional, national, or international significance.
- The area's wildlife or habitat have been identified through a special management zone or objective in a local or regional strategic land-use plan.
- Important species and habitats are to be protected in an area that still allows certain activities to continue.
- The area creates a buffer zone or linkage for a core protected area.[729]

Within WMAs, activities that harm wildlife or other habitat are prohibited except as authorized by permit or regulation, insofar as these activities fall under provincial jurisdiction.[730] Anyone who wants to begin a new use of WMA land or resources, such as mining, logging, or development, must have written permission from the regional manager of Ministry of Water, Land and Resource Stewardship (formerly the Ministry of Forests, Lands, Natural Resource Operations and Rural Development), but any rights granted before the area was designated are grandfathered in.[731] The regional manager and the Minister may also prohibit specific activities, such as entering a WMA, cutting vegetation, and harassing wildlife.[732]

In addition to the broader protection under the *Wildlife Act,* several of the regulations under the act also restrict specific activities within specific WMAs, such as hunting, camping, lighting of fires, and use of motorized vehicles.[733]

In order to designate a WMA, the government must list the area under the schedule to the *Wildlife Management Areas Regulation.*[734] This designation can occur over any public land that is not already protected as a park, conservancy, or recreation area.[735] The government may further protect areas within WMAs, either as critical wildlife areas which are habitat for endangered or threatened species, or wildlife sanctuaries, where it is an offence to hunt, trap, wound, or kill wildlife.[736] In British Columbia, there is currently one critical wildlife area, and no wildlife sanctuaries.[737]

Marine Examples of Wildife Management Areas

At the time of writing, there are thirty-one WMAs located throughout BC. Those that have marine components include:

- Parksville-Qualicum Beach WMA
- Roberts Bank WMA
- Boundary Bay WMA
- Tofino Mudflats WMA
- Skwelwil'em Squamish Estuary WMA.

Strengths of Wildlife Management Areas

The *Wildlife Act* protects both wildlife and wildlife habitat by prohibiting certain activities within a WMA. As noted above, barring authorized exceptions granted under the act, individuals are not prohibited from harming wildlife habitat, including through depositing harmful substances on the land or in the water of a WMA.[738] The act also authorizes the Minister to

CASE STUDY 11 Parksville-Qualicum Beach Wildlife Management Area

Parksville-Qualicum Beach WMA encompasses 1,024 hectares of coastal, estuarine, and river habitat, including 17 kilometres of intertidal foreshore near Nanaimo on Vancouver Island. The WMA protects the estuary of the Englishman River and adjacent beaches, foreshore gravel bars, and river habitat. In addition to providing protective feeding area for over sixty species of water birds, including the Pacific Brant Sea Goose, the estuaries and foreshore support Pacific salmon, steelhead trout, and coastal cutthroat trout. The eelgrass and algal beds within the WMA support annual herring spawns, attracting California sea lions and harbour seals. The abundance of the area also supports terrestrial mammals such as black bears, cougars, and elk.[739]

In addition to the rich ecosystems of the area, Parksville-Qualicum Beach WMA is surrounded by areas of rapid population growth and increasing tourism. It was established as a protected area as a result of local conservation efforts spearheaded by Friends of the Flats, which advocated for protection of the Parksville Flats in the river estuary, and the Mid-Island Wildlife Watch Society, which promoted the creation of a reserve along the coastline from Little Qualicum River to Craig Bay. In 1992, the Pacific Estuary Conservation Program and the Nature Trust of British Columbia acquired property on the west and east sides of the estuary, and the Mid-Island Wildlife Watch Society secured support from local governments to protect the coastline. The province designated the entire area as a WMA in 1994, and a management plan was completed in 1996.[740] The WMA was expanded in 2001, and a new management plan was completed in 2003 to address new pressures to the area.[741]

Although the WMA is designated under provincial law, the Parksville-Qualicum Beach WMA is managed in partnership with other governments, including the Canadian Wildlife Service (CWS), the Regional District of Nanaimo, the City of Parksville, the Town of Qualicum Beach, and a number of conservation organizations.[742] Like all coastal areas, jurisdiction is overlapping and sometimes shared, with portions of the WMA falling within the boundaries of Parksville and Qualicum Beach, and the Regional District of Nanaimo. The Province of British Columbia has Crown title to most of the foreshore and riverbed. CWS administers the adjacent Marshall-Stevenson Unit of the Qualicum National Wildlife Area.[743] The Nature Trust of British Columbia also owns parcels in the estuary and riparian areas that are part of the WMA.[744]

prohibit or restrict access to designated areas for wildlife management purposes.[745]

The government can employ both regulatory and civil remedies if a person violates the act through unauthorized damage or destruction of wildlife habitat within a WMA. This includes a civil right of action, as well as high fines for violating the act.[746]

The extensive grant of powers to regional managers allows for fine-grained local management of WMAs. Under the act, a regional manager has broad power to prohibit entry, alteration of vegetation, and disturbance to wildlife (including releasing, abandoning, or allowing an animal to enter) in a WMA.[747] Furthermore, individuals are required to obtain written permission from the regional manager in order to use land or resources in a WMA.[748] The government may also regulate the use and occupation of a WMA.[749]

Weaknesses of Wildlife Management Areas

In 2021, the BC Auditor General released a report on the government's Conservation Lands program, of which WMAs are the key regulatory tools, identifying a number of weaknesses in how the program in general and WMAs in particular are implemented. Some of these weaknesses were at the strategic level: for example, the Auditor General found the Ministry had not reviewed the program's vision, mission, or goals for over thirty years, and had not established a provincial strategic plan or regional strategic plans in six out of eight regions.[750] Addtionally, the Auditor General found that the Ministry had not adequately supported staff to collaborate with Indigenous nations in securing and managing conservation lands.[751]

The Auditor General also found that WMA managements were on average nineteen years old, and that the majority were in draft form, and had not been officially approved.[752] This is critical because management plans guide WMA governance, as the *Wildlife Act* does not include statutory protection standards for all WMAs or legislated conservation objectives.

Therefore all conservation efforts and protection standards must be identified through each WMA's management plan. Without up-to-date, approved plans, regional staff do not have management direction to guide their decision-making that is based on current risks.[753] This could influence permitting decisions that could potentially allow damage to wildlife or habitat to occur, defeating the purpose of the protected area.

Out-of-date management plans also make it more challenging to respond to noncompliance issues. The Auditor General found that regional

staff "had limited strategies available to address the unauthorized use of conservation lands" and from 2009 to 2020 indicated that "hundreds of unauthorized activities had occurred on conservation lands."[754] These activities ranged from allowing dogs to be off-leash and illegal harvesting to motor vehicle use, dumping, vandalism or otherwise damaging habitat.[755]

Other protection tools within the *Wildlife Act* appear to be largely unused, including critical wildlife areas and wildlife sanctuaries. Presumably these designations are intended to offer greater protection to wildlife. As noted above, however, only one critical wildlife area has been designated, and the act and its regulations offer little direction on allowable and prohibited activities within these areas. There are no designated wildlife sanctuaries in British Columbia.

Finally, it is difficult to judge the effectiveness of WMAs as a tool for ocean protection, as relatively few WMAs have a significant marine component. This designation has more relevance for coastal protection.

Reserves, Withdrawals, and Transfers of Crown Land: *Land Act,* RSBC 1996, c 245 | Ministry of Water, Land and Resource Stewardship

Reserves, withdrawals, and transfers of Crown land under the *Land Act* for conservation purposes are considered "non-administered lands" under the provincial Conservation Lands program, overseen by the Ministry of Water, Land and Resources Stewardship.[756] These tools are used to temporarily conserve land by limiting designated areas to certain uses, or requiring ministry staff to be contacted if a change of use is proposed.[757] As of 2019, these lands totaled 640,000 hectares.[758]

The BC *Land Act* governs the use of provincial Crown land, including submerged land, through planning and tenuring.[759] Currently 95 percent of British Columbia's land base is asserted provincial Crown land, including large areas of the foreshore and seabed such as:

- the foreshore intertidal zone up to the low-tide mark
- the beds of all inland waters
- marine harbours, bays, and estuaries that are between headlands
- the seabed of the Juan de Fuca, Georgia, Johnstone, and Queen Charlotte straits.[760]

As a result, the *Land Act* plays an important role in coastal and ocean management. However, *Land Act* jurisdiction does not include the

allocation of subsurface resource rights, rights to timber, or rights to water resources.

The *Land Act* generally prohibits private rights of ownership or control over the beds of streams, lakes, rivers, and other water bodies in the province, including submerged land in marine areas under provincial jurisdiction, unless expressly stated in the grant of land.[761] The act grants broad authority to the Minister to dispose of Crown land through many mechanisms, including sale, lease, and granting of easements, rights-of-way, and licences of occupation.[762]

Many coastal and marine activities require tenures, meaning licences of occupation or leases, granted under section 11 of the *Land Act*. These include boat launch sites, docks and wharves, aquaculture sites, log handling, utility installations, ocean energy projects, and marinas.[763] Licences of occupation (typically a ten-year term) and leases (up to thirty years) may be issued to private owners or to other orders of government, particularly local governments.[764] There are no specific environmental restrictions associated with leases and licences of occupation in the *Land Act* or regulations.[765]

Under sections 15, 16, 17, and 101 of the *Land Act,* the government can also reserve land for conservation, recreation, and other purposes that are in the public interest.[766] These provisions work by restricting the use and disposition of designated areas of Crown land under the act. "Disposition" is the means through which the Crown assigns a right or interest in Crown land, either through purchase, grant, lease, licence of occupation, right-of-way, or easement.[767]

The province may set aside land for a variety of uses: fish and wildlife management, development such as hydroelectric dams, public access, fisheries facilities, recreation, scientific research, and conservation. *Land Act* reserves are often seen as a temporary measure before establishment of a Wildlife Management Area.[768] They are also useful in protecting aquatic Crown land, which cannot be privately owned in British Columbia but can be tenured or leased. Sections 15, 16, and 17 can and have been used to protect marine habitat and adjacent coastal areas, such as bays, estuaries, and foreshore.[769] *Land Act* reserves range in size from a few acres to several thousand square kilometres.

Four types of *Land Act* measures are used for conservation purposes:[770]

- Order in Council reserves (section 15)
- "map" reserves (section 16)

- conditional withdrawals (section 17)
- examination of claim (section 101).

Order in Council reserves. Reserves under section 15 of the *Land Act* are established by an Order in Council that withdraws the land from disposition under the act.[771] These reserves may be established for any purpose in the public interest. Section 15 reserves are permanent in the sense that they can be cancelled or amended only by a further Order in Council; however, government policy suggests that they are expected to last for sixty to ninety years.[772]

Government policy issued by the then Ministry of Forests, Lands, Natural Resource Operations and Rural Development states that a section 15 reserve may be used in the following circumstances: (1) when it is necessary to create an absolute, rather than temporary (section 16) or conditional (section 17), reserve of land in order to safeguard an acknowledged public interest or concern; and (2) when the natural resources or potential uses of the land are of key or critical significance regionally or provincially; or (3) when it is in the public interest to protect land and maintain long-term options.[773]

"Map" reserves. Reserves under section 16 of the *Land Act,* informally referred to as "map" reserves, temporarily withdraw provincial Crown land from disposition under the *Land Act.* Though the term of section 16 withdrawals is not stipulated in the act, provincial land policy states that they may last up to thirty years.[774] Section 16 reserves require only ministerial rather than Lieutenant Governor in Council approval.[775] Other government agencies can request a map reserve in order to earmark the area for future use, or to temporarily protect the land and resources from development.[776]

Conditional withdrawal. Section 17 allows the Minister to designate provincial Crown land for a particular use, including the conservation of natural or heritage resources. These are called "designated use reserves" or "conditional withdrawals." Such land is "conditionally withdrawn," meaning it may not be disposed of for any use that the Minister believes is incompatible with the reason why the land was withdrawn.[777] Provincial land policy states that conditional withdrawals are expected to last up to thirty years, and should be reviewed every ten years.[778]

Examination of claim. Subsection 101(2) allows the Minister to transfer Crown land to another person, including a different government agency. This may be done to enhance the level of protection in the area. These designations have a specified time period, which may be extended.[779]

Marine Examples of *Land Act* Measures

Examples of *Land Act* measures that protect marine areas include:

- Beaver Cove (Kokish Estuary) Wildlife Reserve, northern Vancouver Island – established in 1980 by Order in Council.[780] It covers 32.9 hectares, mostly marine, to protect seabirds and their habitat. The major threats to the area are an intertidal log-sorting lease adjacent to the area, and recreational impact from nearby Telegraph Cove.[781]
- Yakoun River Estuary (Map Reserve), Haida Gwaii – 160 hectares of land covered by water in Masset Inlet, to conserve and manage fish and wildlife habitat.[782] This area is adjacent to the marine area of the Yaaguun Gandlaay Haida Heritage Site and Conservancy, which was established in 2008.[783]
- Kumdis Bay Wildlife Reserve, Haida Gwaii – established in 1993 to protect the wetland habitat for migrating and wintering water birds, especially the Black Brant. The main threats to the area are log booming and storage. It was designated using various different tools under the *Land Act,* including a section 15 map reserve, transfer of administration under the *Wildlife Act,* and a lease of privately owned land to the Crown. It covers 114.6 hectares in total, 104.7 hectares of which are marine area.[784]
- Fanny Bay Wildlife Reserve, eastern Vancouver Island/ Baynes Sound – this area was established under sections 17 and 101(2) of the *Land Act* in 1993. The area is conserved for its high fish and wildlife values and its adjacency to other conserved land, and is considered at risk of water quality degradation from residential development, as well as marine uses such as aquaculture, log storage, and recreation.[785]

Strengths of *Land Act* Measures

Land Act reserves may be used to temporarily or permanently withdraw provincial Crown land from disposition, or to restrict all but a few particular uses.[786] Given that approximately 95 percent of land in British Columbia is considered by the province as provincial Crown land, the reserve tools can be applied to most of the land in the province, including the extensive area of coastal and foreshore land, as well as the seabed. Between the four *Land Act* tools, there is also considerable flexibility in terms of how land is reserved (either by the Lieutenant Governor in Council or by the Minister) and for how long. These tools are also flexible enough to be used to reserve estuarine land, foreshore habitat, and aquatic Crown land.

Government policy on the *Land Act* indicates that reserves and withdrawals should, where possible, be located so as to adjoin or overlap existing wildlife conservation areas. This policy allows for more unified conservation areas and increases the impact of protected areas designated under other legislation.[787]

Government policy requires that conservation staff be notified prior to the expiry of *Land Act* conservation reserves or withdrawals. Conservation staff may then provide a rationale or recommendation on whether the reserve or withdrawal should continue or be allowed to expire.[788]

Weaknesses of *Land Act* Measures

Reserves and withdrawals granted under the *Land Act* prevent the disposition of land under the *Land Act* only. This means that grants of use under other legislation, such as licences of occupation and tenures under the *Mineral Tenure Act* and the *Forest Act* may still occur. As a result, land reserved or withdrawn under sections 15, 16, or 17 of the *Land Act* may still be subject to industrial uses that damage forest and old-growth areas.

This is particularly relevant as the *Forest Act* and the *Land Act* are overseen by different provincial ministries (the Ministry of Forests and the Ministry of Water, Land and Resource Stewardship, respectively), and ministers could make conflicting orders over the same land. Such a situation arose in the case in *Valhalla Wilderness Society v British Columbia (Ministry of Forests),* where the Minister of Forests issued a timber licence to a forestry company on land that was protected by section 16 as a watershed reserve.[789] The BC Supreme Court held that section 16 only withdrew land from disposition under the *Land Act,* and did not supersede dispositions under the *Forest Act* or the *Ministry of Forests Act.*[790]

Because of this limited jurisdiction, *Land Act* measures must often be paired with other tools to be effective. In particular, *Land Act* designations are not set up for shared decision-making with other orders of government unless paired with another form of agreement.

Another weakness is that the administrative framework for these protections is mostly laid out in policy documents rather than in the act or regulations. This means that these designations are discretionary and may be subject to change. Additionally, the policy guiding the purpose of these areas and their acquisition is not always clear. A 2021 report by the BC Auditor General found that there is "a lack of provincial and regional direction about the purpose of non-administered conservation lands."[791] While

non-administered lands are often used to protect lands to transition to Wildlife Management Areas, the Auditor General found that there was "a lack of direction regarding which of these non-administered conservation lands the ministry aims to maintain for wildlife management areas."[792]

The Auditor General also found that "the ministry lacked an accurate inventory of conservation lands," making it impossible to confirm the total number of non-administrated conservation lands in BC.[793] Finally, reserves of aquatic Crown land are limited to land that is under provincial Crown title. Though this is a significant area, these tools do not apply to marine areas under federal jurisdiction or to those that are privately owned.

Prohibition on Use of Crown Land in Designated Areas: *Land Act,* RSBC 1996, c 245 | Ministry of Water, Land and Resource Stewardship

Section 66 of the *Land Act* allows the Lieutenant Governor in Council to prohibit certain land uses outright within a designated area of land. This is done by regulation. Anyone who engages in a prohibited use of the land commits an offence and can be prosecuted under the *Land Act.*[794] Government policy specifies a maximum term of five years for any prohibition of use, with the possibility of renewal, subject to review.[795]

The province has used section 66 to restrict the use of motorized vehicles, such as snowmobiles and all-terrain vehicles, within certain alpine and subalpine areas in the interior of British Columbia. The nine *Prohibition Regulations* (No. 1–No. 9), enacted in 2004, were repealed in 2015 and replaced by the *Off-Road Vehicle Act.*[796] At the time of writing, no regulations are currently promulgated under this provision.

Strengths of Prohibition on Use of Crown Land

As the *Prohibition Regulations* demonstrate, section 66 can be used to restrict activities within one or more areas in a comprehensive and expedient way. There are no limitations on the Lieutenant Governor in Council's ability to enact these restrictions. As the motor vehicle example suggests, a section 66 prohibition regulation could be an interim step in achieving stronger and more permanent protection.

This power is potentially quite broad and may be used to restrict any activity on land that is within the province's jurisdiction.[797] For example, it could potentially be used to restrict activities such as aquaculture and off-road vehicles within designated areas of coastal and aquatic Crown land.

Weaknesses of Prohibition on Use of Crown Land

As indicated above, section 66 prohibitions are created only for a specific term, up to a maximum of five years, at which point a renewal decision is subject to review by the Executive Committee.[798] This indicates that such prohibitions are not intended as a long-term form of protection, but rather as an interim measure.

Environment and Land-Use Designations: *Environment and Land Use Act,* RSBC 1996, c 117 | Environment and Land Use Committee

The *Environment and Land Use Act* allows the Lieutenant Governor in Council to designate areas by Orders in Council.[799] Typically, the *Park Act* and its regulations apply to these areas, unless the Order in Council says otherwise. The Lieutenant Governor in Council can modify or revoke existing orders by issuing another Order in Council.

These orders are used whenever the province wants to accomplish an environment or land-use purpose but no other act gives it the exact power needed. Often, they are used when the government wants to allow certain types of resource use but not others.

Notable past uses of this power include:

- establishing a moratorium on the development of golf courses in the province[800]
- reserving certain areas from development pending the settlement of Indigenous land claims or resolution of other land-use disputes
- requiring an environmental assessment, including a public review, for specific types of projects carried out in the Fraser River estuary and foreshore of Boundary Bay and Semiahmoo Bay (this applies to subdivision approvals, building permits, Crown leases, and pollution control permits).[801]

The *Environment and Land Use Act* also establishes an Environment and Land Use Committee, a Cabinet Committee currently made up of the Minister of Indigenous Relations and Reconciliation; the Minister of Forests; the Minister of Water, Land and Resource Stewardship; the Minister of Environment and Climate Change Strategy; the Minister of Energy, Mines and Low Carbon Innovation; the Minister of Transportation and Infrastructure; and the Minister of Agriculture. The role of the committee is to ensure that

"all aspects of the preservation and maintenance of the natural environment are fully considered in the administration of land use and resource development." The goal is to ensure maximum beneficial land use, and to minimize the waste of natural resources and the despoliation of the environment caused by the land use.[802]

There are currently eighty-four protected areas under the *Environment and Land Use Act,* four of which have a marine component, protecting a small total area of 187 hectares of marine environment.

Marine Examples of Environment and Land Use Designations

The four protected areas designated under this act with marine components are as follows:

- Brim River Hot Springs Protected Area, established in 2005, is located on the north side of Gardner Canal, 70 kilometres southeast of Kitimat. The area encompasses the estuary of Brim River and a small part of Owyacumish Bay.[803]
- Foch-Gilttoyees Protected Area was designated in 2005. It is adjacent to Foch-Gilttoyees Provincial Park (designated in 2004), near Kitimat on the Douglas Channel.[804]
- Jesse Falls Protected Area, on the Douglas Channel, was designated in 2005.[805]
- Maquinna Marine Protected Area, designated in 2004, is adjacent to Maquinna Marine Provincial Park (established in 1955). Both are in the northwestern part of Clayoquot Sound on the west coast of Vancouver Island.[806]

In addition, the province has used the *Environment and Land Use Act* to temporarily establish protected areas that are subsequently designated as conservancies or other types of protected areas, as in the example of the Huchsduwachsdu Nuyem Jees/Kitlope Heritage Conservancy (Case Study 12).

Strengths of Environment and Land-Use Designations

Designations under the *Environment and Land Use Act* are an effective tool because of the power granted to the Lieutenant Governor in Council to make regulations. Section 7 of the act provides that the Lieutenant Governor in Council (on a recommendation from Environment and Land Use Committee) can make any order that it "considers necessary or advisable respecting

CASE STUDY 12 Huchsduwachsdu Nuyem Jees/Kitlope Heritage Conservancy

The Huchsduwachsdu Nuyem Jees/Kitlope Heritage Conservancy was established in 1996 by an Order in Council under the *Environment and Land Use Act* to protect cultural and ecological values. The province used this tool because the Haisla Nation was concerned that a designation under the *Park Act* would not allow for co-management of the area.[807]

In 2008, the province designated the area as a conservancy under the *Park Act*. The conservancy is collaboratively managed by the Kitlope Management Committee, which was established by the *Kitlope Agreement between the Haisla First Nation and the Province of British Columbia* in 1996. The committee has three Haisla and three provincial representatives and a mutually agreed upon chairperson. Recently, a regional district representative has filled one of the provincial seats on the committee. Since 2008, Haisla Nation watchmen have implemented and administered operations within the conservancy with BC Parks staff.

The management committee gave direction to the development of the management plan, which began in 2004, was approved in 2011, and was signed off by the Haisla Nation in 2012. This management plan provides guidance for types and levels of use and activity within the conservancy.[808] The management committee continues to provide strategic direction for management of the conservancy.

the environment or land use." Not only that, but these orders can restrict how provincial government employees use their powers under other acts.

Because of the flexibility of the act, the government can tailor the protection to allow certain types of development only, or to regulate how the land is to be used, when no other act explicitly provides for the appropriate restrictions.

Case Study 12 demonstrates the usefulness of this designation. The act allows different government ministries, working together, to minimize environmental damage by creating protected areas and establishing management direction. This gives the province the ability to act quickly to protect the environment.

The Environment and Land Use Committee has several other powers that can aid it in protecting sensitive areas, including the authority to hold public inquiries, appoint technical committees, initiate public awareness campaigns, and study any environmental or land-use matter.[809]

Weaknesses of Environment and Land-Use Designations

The land within protected areas established under this act is often used differently from other designated areas, as existing or proposed activities that would typically not be allowed in a Class A park, such as a pipeline or transmission line, may be allowed within these areas.[810] In addition, the Lieutenant Governor in Council can amend Orders in Council to change what is allowed within a protected area. For example, Order in Council 117 in 2017 amended the Lac du Bois Grasslands Protected Area to allow the proposed Trans Mountain Expansion pipeline to pass through the land within the area.[811]

Ultimately, the use of this designation is entirely a political decision, and there is no legal mechanism to require its use.

Wildlife Habitat Areas: *Forest and Range Practices Act,* SBC 2002, c 69 | Ministry of Forests

A Wildlife Habitat Area (WHA) is a land designation meant to protect small areas of land for specific species of animals and plants as part of British Columbia's Identified Wildlife Management Strategy (IWMS). Essential habitat for certain marine species, such as old-growth forest for the Marbled Murrelet, may receive protection through a WHA designation. Statutory authority for WHAs was originally found under the BC *Forest Practices Code of British Columbia Act* (now repealed) but is now found under the *Forest and Range Practices Act* (FRPA).[812]

WHAs are intended to protect necessary habitat for two types of identified wildlife: "Species at Risk" and "Regionally Important Wildlife."[813] Pursuant to subsections 13(1) and (2) of the *Government Actions Regulation,* the Minister of Forests can establish by order a category of Species at Risk if satisfied that a species is "endangered, threatened or vulnerable," and a category of Regionally Important Wildlife if satisfied that a species is important to a region of British Columbia, relies upon habitat that requires special management that is not otherwise provided by enactment, and may be impacted by forest and range practices.[814]

A proposed WHA must be tied to one of the identified species. Before ordering the establishment of a WHA, the Minister must be satisfied that

the WHA is necessary to meet the habitat requirements of the identified species.[815] Along with a WHA, the Minister may establish objectives for the WHA and general wildlife measures for the protection of the WHA.[816] The Minister may also identify wildlife habitat features that must be protected.[817] Examples of such features include nests, mineral licks, "fishing sensitive feature[s]," and "marine sensitive feature[s]."[818]

Strengths of Wildlife Habitat Areas

Forestry activities can be some of the most ecologically damaging activities taking place in coastal areas. WHAs can be effective tools for protecting small coastal areas from forestry-related activities where such areas have particular significance to a designated species. In doing so, WHAs fill in some gaps in protection on Crown lands outside of British Columbia's larger protected areas.

CASE STUDY 13 Marbled Murrelet Wildlife Habitat Areas

The Marbled Murrelet is a small bird that spends most of its time at sea or near the coast but nests almost exclusively in old-growth trees within 30 kilometres of the sea. Its habitat ranges from Alaska to California. The Marbled Murrelet is listed as "Threatened" by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). In 2004, the then BC Minister of Water, Land and Air Protection ordered the establishment of the Marbled Murrelet as a category of Species at Risk pursuant to the *Government Actions Regulation*.

In February 2018, the Minister issued an implementation plan for the recovery of Marbled Murrelet.[819] The plan calls for the protection of large areas of Marbled Murrelet habitat using a variety tools, including provincial parks and ecological reserves. Small nesting areas are to be protected by Wildlife Habitat Areas.[820] There are currently hundreds of WHAs along the BC coast protecting nesting areas for the Marbled Murrelet, such as one on Zeballos Inlet (Vancouver Island). The general wildlife measures for the Zeballos Inlet WHA prevent construction of roads, timber harvesting or silvicultural activities, and establishment of recreation sites or trails.[821]

Weaknesses of Wildlife Habitat Areas

A major weakness of using WHAs for spatial protection is that current government policy sets a limit of 1 percent of "allowable impact to short-term harvest levels that may be incurred as a result of implementing measures for Identified Wildlife." This greatly restricts the amount of land that can be covered by WHAs. As detailed in the Identified Wildlife Management Strategy, the BC government views WHAs as "fine-filter tools" for managing a specific species, as opposed to "coarse-filter management tools" such as provincial parks and protected areas. The IWMS states that WHAs are "stand-level measures that cannot address the issues of habitat supply, habitat connectivity and population viability. Such considerations should be taken into account during strategic- and landscape-level planning."

Moreover, WHAs can limit only activities regulated by the *Forest and Range Practices Act* (i.e., forestry and range activities). Other activities, such as hunting, mining, agriculture, and urban development, will not be restricted by a WHA.[822] Also, WHAs can be established only in areas under the jurisdiction of the act (i.e., provincial Crown land). While this includes large coastal areas of the province, the use of WHAs to protect ocean areas is limited.

Provincial Heritage Sites: *Heritage Conservation Act,* RSBC 1996, c 187 | Ministry of Water, Land and Natural Resources

The *Heritage Conservation Act* (HCA) sets out the legal framework for regulating heritage property in British Columbia.

The HCA affords spatial protection automatically to certain sites, such as sites that contain physical evidence of human habitation or use before 1846,[823] as well as to officially designated provincial heritage sites. Designated sites are registered in the provincial heritage register.[824] The site is then protected from damage and desecration, and any activities that would alter the site are regulated through a permitting process.[825] This applies to sites on public or private land.

If the area is on Crown land, the province may designate it as a provincial heritage property. The government is able to further protect these properties under the provisions of the *Park Act,* which it can do by regulation.[826]

Indigenous nations can enter into a formal written agreement with the province that identifies heritage sites and objects as well as actions that would desecrate or detract value from a site or object.[827] As of 2016, this provision had never been used, but the Joint Working Group on Indigenous

Nations Heritage Conservation issued a call for proposals for a pilot project under section 4 of the HCA in March that year to explore the use of this tool.[828] As discussed below, however, Indigenous nations have taken issue with the HCA and the way it is implemented.

The provincial government most recently amended the HCA in 2019. The changes will require people to report discoveries of heritage sites or objects, and will increase compliance and enforcement tools; they may require that property owners pay for a heritage inspection before altering a site.[829]

CASE STUDY 14 Grace Islet

Grace Islet, a small island next to Salt Spring Island, is home to a Coast Salish burial site. As both a burial place and a site with evidence of human use before 1846, it was automatically protected from damage or alteration under the *Heritage Conservation Act*.[830]

The islet was sold to a private owner in 1913, and remained untouched until 2014, when the owner began to build a luxury home on the site.[831] This work was authorized through permits issued under the *Heritage Conservation Act* despite the presence of at least sixteen burial cairns. The fact the development was allowed to proceed on a sacred and historical site points to weaknesses in the province's heritage conservation laws, which have been criticized for treating Indigenous burial sites differently from European cemeteries.[832]

Nine Coast Salish nations were joined by non-Indigenous residents in opposing the development. The provincial government eventually responded to the concerns and partnered with the nine Indigenous nations and the Nature Conservancy of Canada (NCC) to purchase the site for a reported $5.45 million.[833] The Indigenous nations and the NCC now work together to care for and manage the islet.

Grace Islet is an example of a heritage site with important spiritual and cultural values that also provides important terrestrial and marine habitat. Though it is a small area, the islet is right outside well-developed Ganges Harbour, and is home to Garry oak, Douglas-fir, and juniper trees, as well as seagrass meadows in the intertidal zone.[834]

Strengths of Heritage Sites

One major strength of the HCA is that it applies to both public and private lands. This is especially significant since many Indigenous heritage sites are now found on private lands.

The act also gives the Minister of Water, Land and Natural Resources several discretionary powers that increase the government's flexibility in protecting heritage sites. With approval from the Lieutenant Governor in Council, the Minister may create policies and standards to conserve and manage any heritage site owned or managed by the government.[835] The Minister may issue a temporary protection order prohibiting any alteration of the property for up to 120 days if the Minister believes that a property has or may have heritage value and is likely to be altered.[836] In addition, at the time a provincial heritage site is designated, the Lieutenant Governor in Council may establish policies on when permits may be issued.[837]

Weaknesses of Heritage Sites

At the root of many problems is the fact that the HCA does not recognize Indigenous nations' inherent right to manage, protect, and use heritage sites and objects.

Moreover, the provincial government generally equates heritage with archaeology, and a site that does not show signs of human occupation or alteration is usually not seen as a heritage site. This excludes many sites that are of spiritual or cultural significance to Indigenous nations, such as travel routes, landforms and landscapes, or harvesting and production sites, which show little or no evidence of alteration. It also excludes landscapes and waterscapes that are culturally significant for the very reason that they are untouched.[838]

Enforcement is another major issue. Theft, desecration, and destruction of sites is common, but few people have ever been successfully charged under the HCA. In two successful prosecutions that did occur, Indigenous nations were instrumental in providing enough evidence to charge the offenders. However, the fines were well below the maximum and may not present a significant deterrent.[839] Changes introduced in 2019 through Bill 14, the *Heritage Conservation Amendment Act, 2019* strengthened compliance and enforcement tools by granting officials the right to enter land, including private land, to administer and enforce the act.[840] These amendments were introduced in response to Indigenous nations' calls to better protect heritage property.[841]

Finally, the HCA as currently drafted and implemented has limited appli-

cation in the marine space, despite the significant heritage values of British Columbia's coasts and oceans. For example, provincial and Indigenous partners in the Marine Plan Partnership identified several areas of ancient or historical value within each planning region. These ranged from archaeological sites to travel routes and sites that were tied to oral histories, as well as harvesting and production sites. Many of these sites, however, did not show obvious signs of use or infrastructure, which made them challenging to protect under the HCA. In the absence of obvious legal tools, the MaPP plans include management measures to protect these areas, such as planning, documentation, and inventorying of sites and improved public awareness.[842]

5
INDIGENOUS LAW

> "Because of their attachment to, and dependence on the land, Indigenous peoples have been establishing their own protected areas for millennia."
>
> – STEVEN NITAH, ŁUTSEL K'E DENE FIRST NATIONS' LEAD NEGOTIATOR FOR THAIDENE NËNÉ PROTECTED AREA

INDIGENOUS NATIONS HAVE INHERENT jurisdiction to govern and manage their territories.[843] Today, rising out of the impacts of colonization, Indigenous nations continue to actively govern their territories, including marine and coastal areas, and manage marine resources under their own laws. As Steven Nitah, lead negotiator for Łutsel K'e Dene First Nation's Thaidene Nëné protected area, reflects, "in effect, because of their attachment to, and dependence on the land, Indigenous peoples have been establishing their own protected areas for millennia."[844] A recent global study from the University of British Columbia found that lands managed by Indigenous peoples do a better job of conserving biodiversity than protected areas such as parks.[845] Indigenous-managed lands in Canada also support more threatened species, suggesting that lands managed by Indigenous peoples are withstanding the crisis of biodiversity loss the best.

Designating spatially protected areas is just one way by which Indigenous nations are taking the initiative to uphold their legal responsibilities and

steward their territories. Other examples include setting strategic direction for use of the territory through land-use and marine spatial planning, enacting specific stewardship laws, and on-the-ground monitoring of activities and enforcement of laws in their territories.[846]

In the modern context, some Indigenous nations may choose to designate specific parts of their territories as protected areas under their own jurisdiction and using their own laws. These areas have many different names. For example, at the international level, they may be called Indigenous and Community Conserved Areas (ICCAs) or Indigenous Protected and Conserved Areas (IPCAs); in Australia, they are called Indigenous Protected Areas (IPAs); and in British Columbia, nations have used terms including IPCAs, Tribal Parks, marine protected areas, and Heritage Sites.

In Canada, Indigenous-led protected areas have received considerable attention over the past three years. In 2016, the term "Indigenous Protected Areas" (IPAs), a concept adopted from Australia,[847] was discussed by the House of Commons Standing Committee on Environment and Sustainable Development.[848] The final report, *A New Shared Arctic Leadership Model,* by the then–Prime Minister's Special Representative Mary Simon, recommended that Canada take a lead role by designing a new legislative provision for the IPA designation.[849]

INDIGENOUS CIRCLE OF EXPERTS AND CANADA'S MARINE CONSERVATION TARGETS

In 2017, federal, provincial, and territorial authorities responsible for parks, protected areas, and biodiversity conservation launched the Pathway to Canada Target 1 with the goal of conserving at least 17 percent of lands and inland waters by 2020. This national biodiversity conservation target was adopted in parallel with Canada's obligation to reach the international Aichi Targets.[850] The Indigenous Circle of Experts (ICE), comprising Indigenous experts and members from federal, provincial, and territorial jurisdictions, was created "to provide recommendations on how a spectrum of Indigenous Protected and Conserved Areas could contribute to Pathway to Canada Target 1 in the spirit and practice of reconciliation."[851]

The vision of ICE is to create "a future where Indigenous Peoples decide what conservation and protection means to them and to the lands and waters and are given the space to lead its implementation in their territories."[852] ICE held four Regional Gatherings across Canada in the four directions – North, South, East, and West – to gather ideas for its report.

The ICE report, *We Rise Together: Achieving Pathway to Canada Target 1 through the Creation of Indigenous Protected and Conserved Areas in the Spirit and Practice of Reconciliation,* defines IPCAs as "lands and waters where Indigenous governments have the primary role in protecting and conserving ecosystems through Indigenous laws, governance and knowledge systems. Culture and language are the heart and soul of an IPCA."[853] ICE found that

> while IPCAs can vary in terms of their governance and management objectives, they generally share three essential elements:
>
> - They are Indigenous-led;
> - They represent a long-term commitment to conservation; and
> - They elevate Indigenous rights and responsibilities.[854]

In 2019, the federal government launched a Nature Fund to help fund the creation of new terrestrial protected areas, including IPCAs.[855]

TEXT BOX 12

Governance and IPCAs

Governance of Indigenous Protected and Conserved Areas can range from sole Indigenous governance of the area to shared governance with the Crown where Indigenous nations hold at least equal decision-making authority. Regardless of the chosen governance structure, Indigenous laws, governance, and knowledge systems should be the foundation of IPCAs. The International Union for Conservation of Nature (IUCN) defines four categories of protected area governance: (A) governance by Crown government; (B) shared governance; (C) private governance; and (D) governance by Indigenous peoples and local communities.

Most protected areas established internationally and in Canada would be considered Type A – governance by Crown government. However, both Indigenous and Crown governments assert jurisdiction over the ocean and coastal areas and have responsibilities as governments to manage these areas. Crown governments have typically been hesitant to share decision-making authority with Indigenous nations in a meaningful way. This is now

The Pathway to Canada Target 1 has focused on achieving terrestrial protected area targets and has not considered marine targets in any detail. In 2018, the National Advisory Panel on Marine Protected Area Standards issued five recommendations concerning IPCAs to the Minister of Fisheries of Oceans.[856] It recommended that "the government recognize the importance of Indigenous peoples' roles as full partners in all aspects of design, management, and decision-making around marine protected areas and Indigenous Protected Areas."[857] The panel also recommended that "the government create or amend legislation and regulations to recognize, accommodate, and support implementation of Indigenous Protected Areas."[858] The Minister responded to the recommendations by emphasizing the importance of "establishing a renewed relationship with Canada's Indigenous peoples," including by "enabling Indigenous peoples to become partners in the cooperative establishment and management of marine protected areas and collaborating on how marine Indigenous protected areas can contribute to meeting Canada's marine conservation target."[859] The response did not specifically address the recommendation to create or amend

changing, and shared governance of protected areas is becoming increasingly common. Shared or co-governance refers to protected areas where Indigenous and Crown governments are both involved in making decisions regarding the protected area, ideally grounded in both Canadian and Indigenous law.

Sole Indigenous governance of IPCAs is also an option (Type D governance). The ICE report states:

> While there are numerous areas in Canada that Indigenous Peoples govern under their own legal traditions, there are currently only three protected areas recognized by Crown governments and reported as protected areas in Canada. All of these are located in northern territories: two in the Yukon and one, Wehexlaxodiale, in the Northwest Territories ... Wehexlaxodiale was the first recognized and reported protected area under an Indigenous governance regime in Canada.[860]

legislation and regulations to support implementation of Indigenous Protected Areas.

LEGAL LANDSCAPE

Indigenous Law

Indigenous nations have been governing their territories using their own distinct legal traditions since time immemorial, well before the arrival of European settlers and the reception of the common law system in the land we now know as Canada.[861] The source of their authority lies not in recognition by the Crown but rather in the inherent authority of the nations' own laws. Due to the diversity of Indigenous nations, the territory now known as Canada contains multiple distinctive Indigenous legal orders. Any discussion of the legal landscape in Canada must start by recognizing Indigenous laws as a distinct legal order alongside common law and civil law.[862]

Colonial governments worldwide have deliberately ignored and oppressed Indigenous laws in an attempt to replace them with colonial law. In Canada, territorial displacement, language loss, residential schools, and the banning of important institutions of Indigenous law and governance (e.g., the potlach ban) all caused serious damage to Indigenous legal orders. Many nations and communities are currently in the process of revitalizing their Indigenous laws in relation to aspects of environmental governance.[863] And state governments are increasingly recognizing Indigenous laws and governance systems as a result of broader Indigenous resurgence and self-determination movements. However, recognition of Indigenous law by the state is still lacking in most countries, including Canada.[864]

TEXT BOX 13

Terminology – Indigenous law

The term "Indigenous law" is used here to refer to the legal traditions of Indigenous Peoples themselves (as opposed to the term "Aboriginal law," which refers to Canadian law that applies to Indigenous Peoples). Other terms for Indigenous law include customary law, ancestral law, traditional law, and the names of specific legal traditions (i.e., Haida law or Heiltsuk Ǧvi̓lás).

International Law

As a result of years of advocacy on the part of Indigenous leaders, the international conservation community is increasingly recognizing the validity and importance of Indigenous-led conservation. This has led to changes in conservation, human rights, and Indigenous rights–focused international legal instruments, such as the *Convention on Biological Diversity* (CBD) and the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP). As a signatory to or supporter of many of these international legal instruments, Canada has a legal obligation to comply with them.[865] The ICE report explains the origins of the IPCA concept in international fora:

> In 2003, the International Union for Conservation of Nature (IUCN) recognized "Community Conserved Areas and Indigenous and Community Conserved Areas and Indigenous owned and managed protected areas" at the 5th World Parks Congress in Durban, South Africa. This concept was subsequently adopted by CBD parties in 2004 as "Indigenous and Local Community Conserved Areas." Since that time CBD Parties have recognized different iterations of this concept.[866]

United Nations Declaration on the Rights of Indigenous Peoples and IPCAs

UNDRIP is the most comprehensive statement of the rights of Indigenous peoples in international law, and elaborates on existing human rights standards and fundamental freedoms as they apply to the specific situation of Indigenous peoples.[867] Under UNDRIP, Indigenous peoples have the right to determine how their territories and resources are used to "enable Indigenous Peoples to maintain and strengthen their institutions, cultures and traditions, and to promote development in accordance with their aspirations and needs."[868] Though the terms "IPAs" or "IPCAs" are not used expressly in UNDRIP, several articles support the right of Indigenous peoples to establish and govern Indigenous-led conservation areas, including:

> Article 29: Indigenous peoples have the *right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources*. States shall establish and implement assistance programmes for indigenous peoples for such conservation and protection, without discrimination.[869]

TEXT BOX 14

ICCAs: Indigenous and Community Conserved Areas

In recent years, the term "Indigenous and Community Conserved Area," or ICCA, has emerged internationally as a way to refer to territories and areas conserved by Indigenous peoples and local communities. The ICCA Consortium, an international association dedicated to supporting ICCAs, describes the term as "an abbreviation for a phenomenon that has many diverse manifestations and names in cultures and locations around the world."[870]

Though diverse, ICCAs are defined by three characteristics:

1. There is a close and deep connection between a territory or area and an Indigenous people or local community. This relationship is generally embedded in history, social and cultural identity, spirituality, and/or people's reliance on the territory for their material and non-material well-being.
2. The custodian people or community makes and enforces decisions and rules (e.g., access and use) about the territory, area, or species' habitat through a functioning governance institution.
3. The governance decisions and management efforts of the concerned people or community contribute to the conservation of nature (ecosystems, habitats, species, natural resources), as well as to community well-being.[871]

The ICCA Consortium works to support local ICCA-based initiatives, promote appropriate international and national policies, and increase capacities.[872]

Article 32.1: Indigenous peoples have the *right to determine and develop priorities and strategies for the development or use of their lands or territories* and other resources.[873]

Article 32.2: States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to *obtain their free and informed consent prior* to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.[874]

The requirement in Article 32.2 is often referred to as "free, prior, and informed consent" (FPIC). It has received considerable attention globally as well as in Canada.[875] Indigenous designations can be viewed as proactive expressions and operationalizations of FPIC by Indigenous peoples.

Both the Government of Canada and the Province of British Columbia have committed to fully implementing UNDRIP and have enacted legislation to support this commitment.[876]

Canadian Constitutional Law and IPCAs

As noted in Chapter 2, section 35 of the Canadian Constitution recognizes and affirms Indigenous peoples' pre-existing "Aboriginal and treaty rights," including Aboriginal title, and these rights give rise to constitutional obligations on Crown governments.[877]

In *Tsilhqot'in Nation v British Columbia,* the Supreme Court of Canada affirmed that:

> Aboriginal title confers on the group that holds it the *exclusive right to decide how the land is used and the right to benefit from those uses.*[878]
>
> ...
>
> Aboriginal title confers ownership rights similar to those associated with fee simple, including: the *right to decide how the land will be used;* the right of enjoyment and occupancy of the land; the right to possess the land; the right to the economic benefits of the land; and the *right to pro-actively use and manage the land.*[879]

In other words, the Supreme Court recognized that Aboriginal title includes jurisdiction and governance rights in the title area. Therefore, an Indigenous nation may establish an IPCA within its territories as part of the jurisdictional and governance aspects of its asserted Aboriginal title. Since Aboriginal title is protected by the Constitution, the Crown may be required to appropriately recognize IPCAs as an expression of Aboriginal title. IPCAs can also be a way for Indigenous nations to proactively uphold their other constitutionally protected Aboriginal and treaty rights (for example, to hunt, fish, or trap). In *Haida Nation v Canada (Fisheries and Ocean),* the Federal Court found that Fisheries and Oceans Canada has a heightened duty to accommodate the Haida Nation in part because of the Gwaii Haanas Haida Heritage Site.[880]

It is important to note that the Indigenous decision-making authority inherent in Aboriginal title does not depend on a court declaration or

Crown acceptance in order to be recognized and protected under the Constitution. Rather, "[a]ll that a court declaration or Crown acceptance does is to identify the exact nature and extent of the title or other rights."[881] Failure on the part of the Crown to recognize and respect Indigenous governance and management authority in its decision-making processes exposes the resulting Crown decisions to legal risk and uncertainty, including quashing of approvals following judicial review or title and rights litigation.[882]

Canadian Legislation and IPCAs

Indigenous nations can establish IPCAs under their own jurisdiction and authority. At present, however, there is no clear legal mechanism or policy guidance for Crown governments to appropriately recognize IPCAs or share decision-making authority in a manner that upholds inherent Indigenous governance. There is no explicit legislative recognition of IPCAs, whether terrestrial or marine, in any federal, provincial, or territorial protected area legislation in Canada.[883] However, some jurisdictions have created designations to better protect areas important to Indigenous nations and better support Indigenous governance.[884] Some Indigenous nations have entered into agreements with the Crown and utilized these Crown designations to ensure that their IPCAs remain protected. For example, in Haida Gwaii, the Haida Nation has exercised its legal orders and decided to engage in collaborative decision-making and negotiated amendments to legislation to engage in collaborative management.

Federal Legislation

As discussed in depth in Chapter 3, the federal government has a central role in MPA management based on its international commitments and its legislative powers. The federal government has enacted a number of statutes that permit the designation of marine protected spaces. It is beyond the scope of this analysis to discuss how each of the statutes addresses Indigenous peoples' decision-making authority related to the designation and management of MPAs. In brief, federal MPA laws contain no requirements related to IPCAs, Indigenous co-governance, or the recognition of Indigenous law, jurisdiction, or authority. Though co-governance arrangements can be established through agreements (e.g., the *Memorandum of Understanding between the Government of Canada and the Council of Haida Nation for SGaan Kinghlas–Bowie Seamount* and the *Gwaii Haanas Agreement*), these arrangements are not required or explicitly supported by legislation.[885]

Provincial Legislation

Subject to areas of specific federal jurisdiction (such as fisheries, shipping, and navigation), and to Indigenous jurisdiction, the province has jurisdiction in certain marine areas through its constitutional authority to manage public lands.[886] The province has the jurisdiction to create and manage MPAs under its provincial protected areas legislation. The primary statute used in British Columbia is the *Park Act,* which authorizes the creation of provincial parks and conservancies.

CASE STUDY 15 Collaborative management agreements for provincial conservancies

As noted in Chapter 4, a provincial protected area designation called the "conservancy" was established following government-to-government negotiations related to the Great Bear Rainforest Agreement in 2005 and 2006.[887] Indigenous nations requested a legal designation that would give priority to protection and maintenance of Indigenous uses and also enable a range of low-impact economic activities that would contribute to the human well-being goals of the Indigenous nations. By mutual agreement, the British Columbia *Park Act* was amended to include the conservancy, which was the first type of protected area in British Columbia to identify protection of Indigenous rights and uses as a primary purpose.

A majority of Indigenous nations with territories in the Great Bear Rainforest also entered into protected area collaborative management agreements (CMAs) with the province. The CMAs establish a shared governance arrangement in which Indigenous nations and BC Parks collaborate to prepare and approve protected area management plans, identify and allocate an equitable share of economic opportunities to the Indigenous nations, and review and approve applications by third parties for protected area use permits.

Under the CMAs, senior representatives from the relevant Indigenous nation and from BC Parks are bound to make all reasonable efforts to achieve consensus in their work preparing conservancy management plans and reviewing conservancy permit applications from third parties. Recommendations are forwarded to both Indigenous and provincial decision-makers. If consensus cannot be achieved, dispute resolution procedures are followed.

The establishment of conservancies and the development of the CMAs was precedent-setting, but implementation has been challenging. Technical capacity to undertake required planning, implementation, and monitoring activities for 120 newly established conservancies totalling 1.5 million hectares has been noted as a constant challenge. Many of the management plans for these areas have yet to be completed. Some issues, such as the continuation of guided commercial hunting and fishing, remain unresolved.

Nonetheless, the conservancies and CMAs have created an arrangement through which the Indigenous nations and the Province of British Columbia are exploring how to implement shared governance. Some nations are using the new arrangements to advance local economic activity while ensuring the long-term environmental integrity of their territory and the exercise of their Aboriginal rights and title. Many nations are actively involved in the permitting process for conservancies within their territories.

INDIGENOUS DESIGNATIONS

In the past thirty years, Indigenous nations have been declaring their own protected areas to care for special areas in the face of development. The following pages highlight some examples of Indigenous-led protected areas in Canada. Modern Indigenous-led designations can be seen as new expressions of ancestral responsibilities to take care of the land, water, and other beings. It is not an exhaustive list – many more areas have been or are in the process of being designated. Indigenous nations may also use more culturally specific and appropriate names for protected areas within their territories.

Tribal Parks

Tribal Parks emerged in the 1980s as a way for Indigenous nations to protect areas in their territory from development while maintaining sovereignty and upholding their unique territorial rights. In British Columbia, three Indigenous nations have established Tribal Parks:

- Tla-o-qui-aht Tribal Parks (comprising four distinct Tribal Parks) – The Tla-o-qui-aht First Nation declared the first Tribal Park on what is referred to as Meares Island in 1984 to protect the area from clear-cut

logging.[888] The nation has since declared several more Tribal Parks within the territory.

- K'ih tsaa?dze Tribal Park – The Doig River First Nation declared this Tribal Park in 2011 to protect the remainder of their territory from oil and gas development.[889]
- Dasiqox Tribal Park in Tsilhqot'in territory – The Xeni Gwet'in and Yunesit'in governments, together with the Tsilhqot'in national government, announced their intention to establish Dasiqox Tribal Park in 2014. The nations also refer to the area as an IPCA.[890] The park is known as Nexwagwez?an, which means "it is there for us."[891]

Neither the federal nor provincial Crown governments explicitly recognize Tribal Parks through legislation or publicly available policies. In the absence of legislative and policy support, Indigenous nations have used a combination of other tools, including seeking relief from the court, negotiation with companies, direct action, achieving protection through Crown protected areas,[892] and the fear of broader Aboriginal rights and title challenges, to work towards their goals. For example, the Tla-o-qui-aht First Nation has successfully stopped clear-cut logging in the Tribal Park on Meares Island through a combination of a court-granted injunction, direct action, and a global campaign to support their goals.[893] The Doig River First Nation negotiated deferrals with some of the forestry companies operating within the K'ih tsaa?dze Tribal Park. However, oil and gas licences continue to operate within the Tribal Park.[894]

Indigenous nations differ in their approaches towards seeking Crown recognition for their Tribal Parks. Some nations actively seek out Crown recognition in pursuit of co-management models, whereas others opt not to seek provincial protected area designations.

Haida Gwaii Heritage Sites and Protected Areas

Beginning in 1980, the Haida Nation declared fourteen Haida protected areas, including a Haida Heritage Site,[895] which was later recognized under Canadian law and expanded into the Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site. Building upon this exercise of Haida governance and laws, the Haida Nation later established innovative arrangements with Crown governments to co-govern protected areas in their territory using both Haida and Crown law. The ICE report explains these unique terrestrial arrangements:

> "Protected areas" is the term agreed to by the Council of Haida Nation (CHN) and the province of British Columbia for 18 protected sites. The areas consist of seven older parks and ecological reserves (established prior to modern agreements and with little Indigenous involvement or consultation) and 11 newer sites (established through government-to-government agreements). The Haida Nation recognize the 18 sites as "Haida Heritage Sites" and manage them by way of Haida Stewardship Law. The province recognizes the sites as parks (two sites), ecological reserves (five sites) or conservancies (11 sites) as defined by the *Park Act*.[896]

The Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site, addressed as a case study below, began as a terrestrial site under Canadian law and was expanded to include a marine component. The new Gwaii Haanas Gina 'Waadluxan KilGulGa (Talking about Everything) Land-Sea-People Plan is unique in acknowledging the interconnectedness of terrestrial and marine environments and the need to manage them all together.[897] The Haida Nation has recognized the interconnectedness of Gwaii Haanas from the beginning by designating both marine and terrestrial areas in the Haida Heritage Site. Another marine example is the SGaan Kinghlas–Bowie Seamount Marine Protected Area, which is addressed in more detail in Case Study 2 in Chapter 3. It is an example of how *Oceans Act* MPAs can be co-governed by Indigenous and Crown governments.

Indigenous Protected and Conserved Areas

More recently, the term IPCA has been frequently used to describe declarations by Indigenous nations to protect areas in their territory while maintaining sovereignty. For example, in 2021, the Mamalilikulla First Nation declared the Gwaxdlala/Nalaxdlala (Lull Bay/Hoeya Sound) an IPCA, which protects marine and watershed areas within Knight Inlet. The declaration was made in accordance with the Nation's laws, including the law of Aweenak'ola, meaning "we are one with the land, sea and sky and supernatural Ones."[898]

Marine Protected Areas

In 2022, Kitasoo Xai'xais Nation declared the Gitdisdzu Lugyeks (Kitasu Bay) Marine Protected Area in accordance with Kitasoo Xai'xais law. The Nation protected Gitdisdzu Lugyeks as part of their governance and management of their entire territory, with the vision of ensuring sustainability of

marine areas and resources in their territory now and into the future.[899] The Nation also released a draft Management Plan for the MPA that sets direction for the management of the MPA in accordance with guiding principles of Kitasoo Xai'xais laws, customs, and values.[900]

CASE STUDY 16 Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site

The Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site encompass the southern portion of the Haida Gwaii archipelago, which consists of 350 islands 100 kilometres off the north Pacific coast of mainland British Columbia.

The Gwaii Haanas area (both land and marine) was first designated as a Haida Heritage Site by the Haida Nation in 1985. Soon after, under Canadian law, the land was transferred from the province to the federal government through the *South Moresby Memorandum of Understanding* (1987) and the *South Moresby Agreement* (1988), which committed Canada to creating a national park and a national marine park. In 1993, the *Gwaii Haanas Agreement* was signed by the Haida Nation and Canada, committing both parties to manage the terrestrial area of Gwaii Haanas cooperatively through the Archipelago Management Board (AMB).

In 2010, the Gwaii Haanas marine area was established as a National Marine Conservation Area Reserve under the *Canada National Marine Conservation Areas Act* (*CNMCA Act*), and the *Gwaii Haanas Marine Agreement* was signed, committing the Haida Nation and Canada to cooperative management of the marine area through the AMB.

The *Gwaii Haanas Agreement* and *Gwaii Haanas Marine Agreement* established the shared governance of Gwaii Haanas through creation of the AMB, which has three representatives each from the Council of the Haida Nation and from the Government of Canada (two from Parks Canada and one from Fisheries and Oceans Canada).[901] The AMB has authority for planning, operations, and management of the Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site. The AMB uses consensus-based decision-making through recommendations by members to their respective AMB representatives.

The shared governance structure of Gwaii Haanas is unique in its recognition of divergent viewpoints of the Haida Nation and the Government of Canada with respect to the sovereignty, title, and ownership of the Gwaii Haanas area, and use of both the Canadian and Haida Constitutions to provide equal decision-making authority to both parties of the AMB. The Gwaii Haanas marine component is also unique in that its planning process built on existing terrestrial protected area agreements.

Challenges remain for this model of shared governance, however, such as the interpretation of the role of the AMB in fisheries management decisions.[902] For example, an AMB decision was undermined in 2013 and 2014 when the Minister of Fisheries and Oceans decided to open commercial herring fisheries in Gwaii Haanas against the board's recommendation to keep the fishery closed. At the root of the ensuing dispute was a fundamental difference between the Haida Nation and the Government of Canada in their interpretations of the AMB's role in fisheries management, as defined by the *Gwaii Haanas Agreements*.[903]

The *CNMCA Act* calls for designation of zones within National Marine Conservation Areas (NMCAs), one of which must be a "full protection" zone, which excludes commercial and recreational fishing and harvesting (traditional fisheries are allowed throughout NMCAs). An interim management and zoning plan for Gwaii Haanas, which protected 3 percent of the Gwaii Haanas marine area in full protection zones, was completed in 2010. The AMB decided to develop an integrated management plan for Gwaii Haanas, and the Gwaii Haanas Gina 'Waadluxan KilGuhlGa Land-Sea-People Management Plan was finalized in November 2018. This management plan replaced the existing terrestrial and marine management plans and integrates management of the land and sea through newly developed goals, objectives, and targets, complemented by a zoning plan that includes over 40 percent of the marine area in full protection. Haida law, language, and design elements are incorporated throughout the new plan.

OTHER EXAMPLES OF INDIGENOUS STEWARDSHIP

Indigenous Guardian Programs – Monitoring and Enforcement

Many Indigenous nations continue to uphold their governance responsibilities and their long tradition of stewardship through the creation of Guardian programs. Guardians are often referred to as the "eyes and ears" of the

land and sea. They are hired by their nations to act as protectors, stewards, and guardians of the lands and waters they and their ancestors have inhabited for millennia. Guardian programs can be found all along the Central and North Coast of British Columbia, as well as elsewhere in Canada, both on land and on water.

Guardians play many roles in fulfilling their nation's responsibilities to the land and water. They are involved in a wide range of work, from gathering knowledge about the state of ecosystems, to enforcing the prohibitions and restrictions declared under Indigenous law, to seeking further support from the Canadian state. Monitoring the health of plant, fish, and wildlife populations, and of marine and terrestrial environments, is a key role of Guardians. Both Indigenous and non-Indigenous decision-makers increasingly rely upon the knowledge gathered by Guardians to make responsible decisions about the environment.

Whether pursuing knowledge, enforcing laws, developing partnerships, or all three simultaneously, Guardians are an increasingly common sight. They act under the lawful authority of Indigenous legal traditions. Although this authority is currently not well recognized by Canadian law, it is legitimate and time-honoured.

In 2017, the House of Commons Standing Committee on Environment and Sustainable Development recommended that the federal government "establish a national program of Indigenous guardians, who are community-based land and water stewards managing lands and waters using cultural traditions and modern conservation tools."[904] In 2017, the Indigenous Leadership Initiative received $25 million in funding from the federal government to begin work on a national network of Indigenous Guardians programs.[905] Support for establishing new Indigenous Guardian programs continues to grow.[906]

Currently, most Guardian programs are not empowered under Canadian law to use force or exercise other powers routinely granted to Canadian law enforcement officers. Instead, Crown governments have granted Guardians the authority to monitor for compliance, rather than to enforce. In 2022, however, the Kitasoo Xai'xais and Nuxalk Nations signed an agreement with BC Parks to develop a pilot project granting Indigenous Guardians the same legal authorities as BC Parks rangers. This program, referred to as the Guardian Shared Compliance and Enforcement Pilot Project, would lead to shared compliance and enforcement responsibilities between BC Parks and the two nations within provincial protected areas in their territories.[907]

While these initiatives support Guardians' enforcement of Crown law, the question of enforcing Indigenous laws goes unanswered and requires more creative solutions. Indigenous nations have utilized a variety of strategies to enforce their law in this area, including injunctions, blockades, and informational campaigns.

Indigenous Stewardship Laws

Indigenous nations are revitalizing, articulating, and applying their laws to govern coastal and marine spaces. Some of these articulations of Indigenous laws are focused on specific areas while others are focused on particular species or beings.

In 2014, four First Nations – the Heiltsuk, Kitasoo/Xai'xais, Nuxalk, and Wuikinuxv Nations – from the British Columbia Central Coast region declared a network of Dungeness crab closure areas to combat declines in stocks and to better meet conservation and community needs. Fisheries and Oceans Canada (DFO) initially refused to recognize them, however. The nations communicated the closures directly, asked for compliance from commercial and recreational fishers, and conducted their own patrols.[908]

TEXT BOX 15

Legal personhood: Te Urewera Act in New Zealand

In New Zealand, a novel legal concept for imagining protected areas has emerged in the past decade. In 2014, Te Urewera – a national park since 1954 – was granted its own legal personhood with the proclamation of the *Te Urewera Act.*[909] The act enshrines the ancestral relationship between the Tūhoe iwi people and Te Urewera, and uses *te reo Māori* (the Māori language) to accurately represent the Māori legal system and world view. As Māori legal scholar Jacinta Ruru notes: "Te Urewera Act is undoubtedly legally revolutionary here in Aotearoa New Zealand and on a world scale."[910]

In addition to recognizing novel concepts in legal personhood, the *Te Urewera Act* offers lessons in co-governance that can be applied to marine protected areas here in Canada. Decisions about management are made by the Te Urewera Board, which acts "on behalf of, and in the name of, Te Urewera."[911] While the board started out with equal Tūhoe and Crown membership, the ratio of Tūhoe members will increase over time, and the board

Through these means, the nations were able to secure high levels of voluntary compliance with the closures. Eventually, partial closures for approximately half of the areas were recognized by DFO. A scientific study of the closures showed that both the body size and numbers of Dungeness crab increased at the closed sites.[912]

Indigenous laws and guidance from hereditary chiefs are also foundational to the 2018 Kitasoo/Xai'xais Management Plan for Pacific Herring, which cites stories and principles from the nation's Indigenous law archives.[913] Other examples of Indigenous stewardship laws include the *Heiltsuk Tribal Council's Dáduqvḷá qntxv Ğviḷásax: To Look at Our Traditional Laws* adjudication decision on the Nathan E. Stewart spill; the Yinka *Dene 'Uza'hné Surface Water Quality Standards;* and the Tsleil-Waututh Nation's *Assessment of the Trans Mountain Pipeline and Tanker Expansion Proposal.*[914]

Other Co-Governance Arrangements to Protect Marine Spaces Led by Indigenous Governments

First Nations in British Columbia have entered into unique co-governance arrangements with other levels of government, particularly local governments

is directed to reflect Māori values and law.[915] With the proclamation of the *Te Urewera Act,* New Zealand officially recognized Māori laws and governance systems. As articulated by the Honourable Dr. Nick Smith (Minister of Conservation):

> It has been a real journey for New Zealand, iwi, and Parliament to get used to the idea that Māori are perfectly capable of conserving New Zealand treasures at least as well as Pākehā and departments of State.[916]

The *Te Urewera Act* is also notable for how it deals with underlying disputes to title of protected areas. Underlying title to Te Urewera was claimed by the Tūhoe and by the New Zealand government.[917] After being granted legal personhood, Te Urewera now, in effect, owns itself, thereby neutralizing title disputes.

and the provincial government, in order to better manage and protect marine areas. These agreements typically apply to a particular area within the nation's territory, and can address threats from shipping, fishing, docks and wharves, and other activities. Although the agreements are not always legally binding, they set guidelines for decision-making. A few examples are discussed below. It is beyond the scope of this analysis to discuss all these types of arrangements throughout the province.

The Tsleil-Waututh Nation (TWN) has interjurisdictional arrangements with the provincial government and with a local government for coastal and marine parks:

- **Cates Park/Whey-ah-Wichen.** In 2001, TWN and the District of North Vancouver established the *Cates Park/Whey-ah-Wichen Protocol/Cultural Agreement* for the District's largest seaside park. In 2006, the District and TWN released the "Park Master Plan and Cultural Resources Interpretation Management Plan," a more in-depth, concrete, and precise plan that builds on the agreement.[918] The plan endorses co-governance and upholds TWN authority and autonomy. Neither the plan nor the agreement is a legally binding document.
- **Say Nuth Khaw Yum/Indian Arm Provincial Park.** In 1995, British Columbia designated "Indian Arm Provincial Park" in the upper half of the Indian Arm without TWN's knowledge, and with no formal consultation process. TWN commenced litigation to challenge the creation of the park. Both sides resolved the dispute and signed a *Park Management Agreement* in 1998, which established a Park Management Board with equal representation from TWN and the Province of British Columbia, and renamed the park "Say Nuth Khaw Yum/Indian Arm Provincial Park." The board completed a Park Management Plan in 2010, with the marine management objective to "maintain the natural diversity, distribution and population of marine life and habitats in Indian Arm."[919] The board recommends marine area designations in the plan and forwards them for consideration to DFO, Transport Canada, the RCMP, and the Port of Vancouver.[920] The plan proposed banning all commercial fishing in one area for conservation purposes.[921] Its marine strategies also include the extension of Rockfish Conservation Areas and proposals to create two no-wake areas.[922]

The shíshálh (Sechelt) Nation has created the interjurisdictional Pender Harbour Dock Management Plan with the province.[923] This is a policy instrument

under the *Land Act* that provides mandatory requirements for dock design and constructions in Pender Harbour to protect archaeological resources and minimize impacts on marine resources.

No new dock developments are allowed in areas of critical habitat unless the design "mitigates for potential impacts and does not result in losses to these habitats."[924] As any new designation is given a ten-year tenure, the plan provides short-term stability for critical habitat areas.[925] The plan has no authority over existing docks that may be causing damage to habitats. It "encourages" engagement with the shíshálh Nation, but does not require the nation to give approval for new dock developments.[926] Though not explicitly stated, the plan implies that the province has the final say regarding any developments, as it seems to require only a consultation with the shíshálh Nation at an early point of application, instead of actual co-governance between the shíshálh Nation and the provincial government. This appears to be a unique agreement regarding docks in British Columbia.

6
LOCAL GOVERNMENT

LOCAL GOVERNMENTS ARE KEY players in marine and coastal protection in British Columbia in regions with settlement and development along the coast. Many of these areas have estuaries, wetlands, and other types of sensitive shorelines that have been damaged and are under continued pressure from industrial, urban, and agricultural development, and related flood management activities during the colonial period. In a changing climate, the valuable habitat that remains is increasingly vulnerable because of rising sea levels and more severe storm events, as well as decisions around flood management infrastructure. Protected and restored coastal ecosystems provide multiple benefits to coastal communities, such as flood protection, tourism, and recreation.

While the federal and provincial governments have more comprehensive powers to regulate coastal and marine areas, local governments ground coastal and ocean protection measures in their authority over land use, as well as their ability to regulate development along the shoreline. In many cases, local government boundaries extend seaward of the natural boundary several hundred metres, and local governments can also exercise zoning powers over the surface of the water in this area and the foreshore to the extent they do not interfere with provincial and federal jurisdiction.

A further consideration regarding how local governments operate in coastal areas is that most, if not all, lands and waters regulated by local governments lie on the territories of Indigenous nations. Local governments

may have protocol agreements with Indigenous nations that provide a framework for relationships, as well as agreements about specific matters, such as service provision to First Nations reserve lands. Indigenous nations' territory, rights and laws, and land- and water-use plans along the coast will be part of local government work going forward. Although BC local governments have only delegated authority from the provincial government and are not Crown representatives,[927] growing numbers of BC local governments have made specific commitments to reconciliation with Indigenous nations and communities, and this has been reflected in some places in new collaborative approaches to flood management, dock regulation, and other aspects of local land and community management. Coastal lands are also frequently the location of Indigenous archaeological and cultural sites. These sites have some protection under provincial legislation, but are also subject to inherent Indigenous rights, title, and laws.[928] From a local government perspective, a thoughtful and proactive approach to supporting protection informed by meaningful and respectful relations with local Indigenous nations is desirable.

Local government legal tools directly related to coastal and marine protection include zoning to regulate the use of land and water and the density of occupation; establishment of Development Permit Areas (DPAs); and long-term community planning and policies. In the Gulf Islands, the *Islands Trust Act* gives local trust committees the land-use planning and regulation powers of local governments, together with a specific mandate to protect the environment of the islands for all British Columbians.[929] Local governments can use these powers to establish parks or conservation zones, and to regulate land use in a way that reduces the impacts of coastal development on the coastal and marine environment, for example, by protecting marine riparian vegetation and restricting structures that harden the shoreline. They may also support the rehabilitation of previously damaged coastal habitat.

While local government law and policy tools have some limitations in providing spatial protection for coastal areas, a carefully designed set of reinforcing local laws and policies can make a significant contribution, particularly if aligned with provincial, federal, and Indigenous approaches. The existence of many layers of overlapping jurisdiction within the marine realm calls for deeper intergovernmental work and collaboration, some models of which are highlighted in Chapter 7. At present, where the provincial government has not actively exercised its jurisdiction to protect foreshore habitat, local governments can take some steps to minimize impacts of development on foreshore lands within their boundaries. Local govern-

ments are also often consulted by federal and provincial agencies in permitting and approval processes related to coastal development and activities, to obtain information about local zoning and policies in areas of overlapping jurisdiction, which extends the influence of local government on a practical level.

Opportunities for community members and organizations to advocate for local government action and support for coastal protection range from direct advocacy with local elected officials to involvement in local government processes, such as public hearings and community engagement processes. As well, it can be helpful for community members to engage with local government staff, who often have key responsibilities and local knowledge, and contacts with other government agencies, and may be able to help support conservation objectives. From a local government perspective, there can be benefits to working with environmental and other community organizations that have mandates and other funding sources for activities such as environmental protection, rehabilitation, mapping, monitoring, and community engagement.

LOCAL GOVERNMENT LAW AND POLICY TOOLS

Local governments can make a significant contribution to protecting coastal areas, through local government law and policy tools to regulate land use. These tools range from strategic planning and direction for the area, to zoning and development requirements, to incentive programs to encourage conservation of lands. Table 9 provides an overview of these tools, which are discussed in detail below.

TABLE 9 Local government legal tools for coastal and marine protection

Government type	Statutory authority	Legal tools
Local governments	*Local Governments Act* *Islands Trust Act*	Official community plans Zoning bylaws Development permit areas
Island Trust Council/ Conservancy	*Islands Trust Act*	Islands Trust Natural Area Protection Tax Exemption
Regional district in consultation with municipalities	*Local Government Act*	Regional growth strategy
Covenant holders	*Land Title Act*	Conservation covenants

Local governments in British Columbia exercise authority delegated from the provincial government.[930] Examples of local governments are municipalities and regional districts established under the *Local Government Act* through "letters patent," a regulation that defines the geographic boundaries where they exercise their regulatory powers.[931] The term "local government" is used here to also refer to the local trust committees established for trust areas under the *Islands Trust Act,*[932] which incorporates many of the provisions of the *Local Government Act.* In the case of local governments along the coast, boundaries typically extend out over marine waters for several hundred metres.[933]

With respect to local government jurisdiction, the natural boundary (the ordinary high-water mark) is significant. Above the natural boundary/high-water mark, land is often privately owned and primarily subject to local government regulation, or is sometimes even public land owned by local governments, such as parks. On the coast, below the high-water mark, the foreshore, the land between the high- and low-water marks, is usually provincial Crown land, except in the case of federal or reserve lands.[934] Local government regulation still applies to anyone who obtains tenure from the province to use the Crown land for a fixed term, but it is the province that sets the policies regarding the kinds of tenure it will grant.[935] If a local government wanted to undertake any ecological restoration work on the foreshore, for example, it would need to obtain permission from the province; otherwise it could be charged with an offence under the *Land Act.*[936] Federal jurisdiction over fisheries, and protection for fish habitat, would likely also mean that federal authorization would be required under the *Fisheries Act.*[937]

Despite these limitations on their jurisdiction in coastal and nearshore marine areas, local governments can adopt plans and policies that support coastal and marine protection objectives, and zoning and other regulations that restrict marine and coastal impacts of shoreline development. Some higher-level marine plans, such as the North Vancouver Island Marine Plan,[938] refer to local government plans and zoning bylaws and support their role in marine conservation and planning.

Local government law and policy tools are described below in more detail.

Regional Growth Strategy: *Local Government Act,* RSBC 2015, c 1, Part 14

Regional growth strategies (RGSs) are long-term plans for high-growth areas of the province,[939] developed through a collaborative process with all affected local governments and in consultation with other government

agencies, First Nations, and the public.[940] The *Local Government Act* lists the values that should underlie regional growth strategies: social, economic, and environmental health of human settlements, and the efficient use of public services, land, and resources. Growth strategies are expected to include specific development goals, such as avoiding urban sprawl, reducing pollution, and protecting environmentally sensitive areas.[941] Strategies must cover at minimum a twenty-year period, though they can look even further into the future.[942] RGSs are supposed to be developed in the "high-growth" areas of the province – southern Vancouver Island, the Lower Mainland, and the Okanagan – to address urban sprawl, which can also negatively affect coastal habitat.

Once accepted, a regional growth strategy is adopted by bylaw and comes into effect.[943] From this point onward, all bylaws adopted by the regional district must be consistent with the regional growth strategy.[944] Municipalities must adopt regional context statements in their official community plans (OCPs) that implement their commitments.[945]

Examples of Regional Growth Strategies with Marine Components

The Capital Regional District Regional Growth Strategy was announced in 2018. It prioritizes "community and regional park land acquisition, public and private land stewardship programs and regional trail network construction that contributes to completion of the sea to sea green/blue belt running from Saanich Inlet south to Juan de Fuca Strait."[946] Among its 2038 targets is the reduction of contaminants to marine water bodies.

The Comox Valley Regional District Regional Growth Strategy was announced in 2011. The RGS notes the benefits of a regional conservation strategy and includes a map to "conceptually illustrate how linkages could be made between ESAs [environmentally sensitive areas], parks and green spaces at a regional scale based on the overarching principles of conservation and connectivity." The RGS also notes gaps in data, including "a lack of detail in provincial and federal Sensitive Ecosystem Inventory (SEI) mapping data for marine ecosystems," and establishes an objective to obtain more complete and detailed information.

Strengths of Regional Growth Strategies

Developing a regional growth strategy requires a regional-level identification of priorities and strategic direction, and specific consideration of certain environmental issues, including action on parks and natural areas.[947]

This may be helpful in identifying marine and coastal areas that are significant at a regional level and the resources and means to protect these areas, as well as directing and containing urban growth.

With direction from an RGS, regional district staff can also direct resources towards mapping and inventory of ecological data to inform better planning and protection at the regional and local scale.

Weaknesses of Regional Growth Strategies

Regional growth strategies do not provide legal protection to environmentally sensitive areas on their own. Even a strongly worded regional growth strategy will not guarantee action by a regional district, or specific actions by municipalities within the regional district. However, it does require that the regional district's future bylaws and services be consistent with the RGS, and that municipalities within the regional district identify how they will make their official community plans (discussed below) consistent with the RGS over time.

Regional growth strategies are vulnerable to incremental changes that may expand urban growth boundaries, for example, through "minor" changes that are not subject to full deliberation.[948]

Official Community Plans: *Local Government Act,* RSBC 2015, c 1, sections 471–72; *Islands Trust Act,* RSBC 1996, c 239, section 29

An official community plan (OCP) sets out overarching policies and objectives that apply to land use and development within the area covered by the plan, which is usually the entire municipality or electoral area (defined and typically less densely settled areas within a regional district) or local trust area.[949] The OCP provides the framework for local government decision-making: all bylaws and local government decisions, including capital expenditures, must be consistent with the OCP once it has been legally adopted by a local government. OCP policies and objectives can also inform considerations of public interest made by approving officers with respect to subdivision applications.

A shoreline inventory that documents existing habitat and physical features provides a good foundation for developing OCP policies and development permit guidelines for coastal and marine areas. If no inventory exists, then completing the shoreline inventory could itself be an objective in the OCP, along with the protection of marine life and foreshore habitat. Policies could seek to:

- protect certain specific types of habitat or shoreline
- protect environmentally sensitive areas with high ecological value
- protect ecological and hydrological functions at the shoreline
- maintain connectivity along the shoreline and with upland areas
- provide direction about setbacks of development from the shoreline
- support the use of soft shore approaches to address erosion and the impacts of climate change on coastal properties
- include foreshore restoration requirements when coastal areas are redeveloped
- discourage filling or removal of materials from the foreshore
- minimize environmental impacts of new marinas and docks
- reduce impacts from upland runoff and other sources.

Examples of Official Community Plans with Marine Components

The Cowichan Valley Regional District Official Community Plan for Electoral Area D "seeks to restore, protect and enhance the Cowichan Estuary so that fish and shellfish can be safely harvested and the coastal environment can be enjoyed for social, cultural and recreational purposes."[950]

North Saanich's Official Community Plan[951] includes general marine policies, as well as specific policies for different shoreline types that have been mapped by the the North Saanich Regional District, including:

- rocky shores (no development within 15 metres of high-water mark to preserve natural features)
- beach shores – drift shore sectors and pocket beaches (maintenance of coastal processes and management of erosion to preserve beaches; restrictions on filling and bulkhead construction)
- mudflats, marsh, and delta shore (no bulkheads, and adjacent development is discouraged).

Strengths of Official Community Plans

An OCP is developed through a process that includes public consultation, and this provides an opportunity to have a community dialogue about possible policies, strategies, and actions for coastal and marine protection.

Although OCPs must have at least a five-year time horizon, they are often developed for longer time periods, such as twenty to twenty-five years. This is relevant for environmental planning and objectives, where protection for the long term is needed, and where there are plans to rehabilitate areas that have been damaged by previous development as redevelopment

occurs. As well, having a longer-term policy document that has been adopted by a municipal council, regional board, or local trust committee can also help buffer some of the shorter-term priorities and pressures on environmental objectives created by a four-year election cycle. One of the forward-looking policies that often appears in an OCP is the definition of an urban containment boundary that indicates where future growth is intended to be concentrated and which areas will remain undeveloped or with a low density.

OCPs are required to identify and map environmentally sensitive areas, and to identify related restrictions on land use.[952]

OCPs are also useful for their integrative function. Different departments or service areas within local government can be working in silos. For example, land-use planning and infrastructure upgrades related to climate change may be relevant for shoreline areas, and policy objectives in the OCP can promote coordination. Overall, from a coastal protection perspective, it is important to establish strong, intentional links between growth management, land- and water-use planning, and natural and coastal area protection.

OCPs can also include smaller-scale "area plans" that can be fine-tuned for policies for specific environmentally sensitive areas.

Weaknesses of Official Community Plans

Although OCPs may contain relatively far-reaching policy statements on environmental protection, including protection, restoration, and enhancement, there is no legal requirement that they do so.[953] The minimum requirement for addressing environmental protection is to identify areas environmentally sensitive to development where land use will be restricted, without reference to any standard of environmental protection or restoration.[954]

A local government is not obliged to act on every element of an OCP that has been adopted as a bylaw. However, all future land-use decisions must be generally consistent with the plan's objectives and policies.[955]

It is also possible to make incremental changes to the OCP in response to specific development applications. In this way, the objectives of the OCP can gradually be eroded over time with respect to habitat protection, for example.

Zoning: *Local Government Act,* RSBC 2015, c 1, Part 14, Division 5; *Islands Trust Act,* RSBC 1996, c 239, section 29

Zoning is one of the fundamental regulatory powers of local governments. Within a zone, a local government may regulate the use of land; the density

of the use of land; the siting, size, and dimensions of uses permitted on the land; and the location of the uses on the land.[956] Local governments may also prohibit any use(s) of land within a zone.[957]

On the coast, local government boundaries usually extend several hundred metres seaward of the high-water mark, and "land" for the purposes of the land-use provisions in the *Local Government Act* is defined to include the "surface of the water."[958] This means that local governments can zone for uses in coastal and marine areas out to their boundaries, including docks and marinas, for example. Zoning can also be used to designate land for conservation uses.

Local zoning in the foreshore and areas seaward out to local government boundaries applies to third parties that are leasing or using provincial Crown lands[959] (although it does not apply to the province or its agents).[960] Federal Crown lands are not subject to local zoning.[961]

While zoning defines the permissible uses of land from a local government perspective, prospective users still require permission or tenure from the province if the use or activity will occur on provincial Crown land. This also applies to local governments themselves, for example, when a local government wants to take on more active management of coastal areas within its boundaries. "Other measures to complement the use of zoning powers," in the examples below, include cases where a local government has accomplished specific marine management goals, and protection of marine space from potentially harmful activities such as long-term moorage and new docks, by complementing zoning with provincial tenures.

Examples of Marine Zoning

Examples of the use of zoning to protect marine areas include bylaws restricting long-term moorage and bylaws restricting the construction of private docks.

Bylaws restricting long-term moorage – BC courts have found that local government zoning restrictions on long-term moorage are legally enforceable. In *West Kelowna (District) v Newcomb,* the Court of Appeal upheld a bylaw enacted by the District of West Kelowna to restrict long-term moorage on Okanagan Lake within its boundaries.[962] The bylaw was challenged on the grounds that navigation is a matter of federal jurisdiction. The court recognized that the purpose of the zoning regulation was land-use regulation, and found that the bylaw did not affect the core federal jurisdiction of navigation and shipping, which includes temporary moorage and anchorage but does not include the right to anchor or moor permanently.[963]

More recently, relying on the *Newcomb* decision, the BC Supreme Court upheld the City of Victoria's authority to restrict illegally moored vessels within the Gorge Waterway.[964] The City of Victoria had adopted a bylaw establishing the Gorge Waterway Park District zone and prohibiting long-term moorage within the zone. This was challenged by individuals who lived or moored their boats in the area, but the court affirmed the City of Victoria's ability to regulate and restrict long-term moorage.[965]

Bylaws restricting the construction of private docks – A carefully worded bylaw can restrict or prohibit the construction of private docks in specified areas within local government boundaries. In *Zongshen v Bowen Island,* the local government wanted to stop the construction of a private dock, but the Court of Appeal found that the wording of its land-use bylaw specified only docks that were "a float on the surface of the water" and therefore did not apply to docks that were affixed to the sea bed. The Court of Appeal noted that "it would have been a simple matter to provide a broader definition."[966]

CASE STUDY 17 Sample protected area zoning in local government bylaws

Bowen Island Municipality Land Use Bylaw No. 57, 2002

Bowen Island, an island municipality in Howe Sound, lays out permitted uses within water zones in the *Bowen Island Municipality Land Use Bylaw No. 57, 2002* at Part 4.13, "Water Use Zones – Coastal." These water zones can be zoned for general use, commercial use, and civic use. Section 4.13.1 of the bylaw imposes conditions for use, including that

> Any Community dock, Private moorage facility or group moorage facility shall be located such that it will not impede pedestrian access along the beach portion of the foreshore, or negatively impact eelgrass meadows, kelp beds, clam beds or mussel beds.[967]

The Bowen Island bylaw also identifies zones that are particularly protected, including areas where none of the regular uses (e.g., roads, trails, public or private utilities, highways, water storage, short-term milling) are permitted.[968] These include Ecological Reserve Zones (G1), Environmentally Sensitive Zones (G2), and Drinking Water Zones (WP1).

District of Squamish *Zoning Bylaw, No. 2200, 2011*

This District of Squamish enacted new marine zoning bylaws in 2022. These new zones were developed in accordance with the Squamish Marine Action Strategy in order to clarify permitted uses and requirements in marine areas.[969] The changes add five new marine zones to the *Zoning Bylaw*: M-1 – Marine General; M-2 – Marine Mixed Use; M-3 – Marine Recreation; M-4 – Marine Log Sort; and M-5 – Marine Transportation Infrastructure (which addresses an existing ferry terminal at Darrell Bay).[970] M-1 and M-3 include community access and recreational use as allowed purposes of the zone, and M-2 focuses on marine commercial use including marinas, moorage, and recreational and retail activities.[971]

Three elements of the marine zoning bylaws are of particular interest for coastal and ocean protection:

- Within the M-1 – Marine General zone, which makes up the majority of the Squamish coastline, "breakwaters and groynes, and other similar structures that impede the natural flow or movement of water or beach material" are prohibited.[972]
- Several sensitive marine areas have now been zoned P-4 – Ecological Reserve, including the estuary of the Stawamus River, the upper end of the Mamquam River Blind Channel, Cattermole Slough, and areas of the Squamish River estuary that are included in the management plan but not part of the provincial wildlife management area.[973] The intent of the P-4 zone is to protect and enhance land and water areas with high ecological value and to provide for limited public access and use, and was amended in the bylaw change to include "marine park" as a permitted use.[974]
- The amendments introduce a requirement for all log storage be set back at least five metres from a water lot or parcel zoned P-4 – Ecological Reserve.[975]

Lions Bay Zoning and Development Bylaw No. 520, 2017

Lions Bay, a small community just north of the Horseshoe Bay ferry terminal on the Sea to Sky Highway is another example of a municipality that has two marine zones over water: W-1 Zone (Water – Marine Foreshore) and W-2 Zone (Water – Marine Community Recreation). The bylaw restricts permitted uses within these zones to mooring, floating docks, and boat launching. No secondary uses, buildings, or structures are permitted in either marine zone.[976]

Although neither W-1 nor W-2 is specifically zoned for conservation, environmental conservation is permitted in all zones, and is defined as the "preservation and protection of natural resources and assets in their natural state including the habitat of birds, fish and other wildlife."[977]

Other measures may complement the use of zoning powers. For example:

- Bowen Island's *Use of Beaches and Water Areas Bylaw No. 418* complements planning embodied in restrictions on uses in its land-use regulation; Bowen Island Municipality has also explored the use of its authority under the *Community Charter* to regulate activities in public places and nuisances in this bylaw. For example, the bylaw prohibits certain repair activities on the beach, vessel storage on the beach, littering, and other activities. As well, the municipality has obtained from the province a thirty-year Licence of Occupation in Mannion Bay that allows it to actively manage mooring buoys in order to restore the marine environment, including requiring registration and fees.[978]
- The District of Central Saanich has negotiated the terms of a Licence of Occupation from the province to oversee and manage the number and location of mooring buoys at Brentwood Bay. The district sought an application for a licence following community concerns about derelict and abandoned boats, sewage, and garbage, and the number and speed of vessels in the area.[979]

CASE STUDY 18 Campbell River shoreline protection measures

A 2011 assessment of the foreshore area for the City of Campbell River revealed that significant damage had been caused by modification of the shoreline. Measures such as shoreline armouring, including riprap and seawalls, along with the construction of piers, groynes, and breakwaters, had altered physical shoreline processes, increasing wave energy and accelerating erosion. As well, shoreline armouring combined with the loss of backshore vegetation and outflow of untreated stormwater from upland areas had disrupted habitat function. Finally, it was revealed that significant areas

of Campbell River had been constructed in the flood plain, and were vulnerable to coastal flood risks, both at the time and increasingly in the future.[980]

Concerned about these findings, and recognizing that restored shoreline habitat and function could also help buffer developed areas of Campbell River from flood risks, the city obtained a "recreational lease" over the foreshore from the province. The city also entered into an agreement with Fisheries and Oceans Canada that allows it to replace hard armouring with soft shore alternatives, in order to develop adaptation to climate change responses while considering coastal natural processes.[981] Activities will include sediment management and management of foreshore vegetation, including removal of invasive species. The city will provide Fisheries and Oceans Canada with an action plan map outlining the specific projects associated with the activities outlined in the agreement.

Subsequently, the City of Campbell River undertook the development of a comprehensive sea-level rise adaptation study and community engagement process. This included consideration of different approaches to shoreline protection, and a good review of those options and the pros and cons of each was prepared for the city.[982]

Strengths of Zoning

Zoning requirements apply automatically to all land in a zone – they do not require further elaboration of site-specific permitting conditions as needed in Development Permit Areas for natural protection and hazard management, for example. As a result, zoning may mean regulation that is less finely tuned for given sites; on the other hand, its application will require fewer administrative resources from local governments, and may be less costly and predictable from the perspective of property owners and developers.

The *Local Government Act* does not identify or limit the types of land use that may be zoned within local jurisdiction.[983] Local governments can and do zone for conservation, which could be used to preserve specific marine areas.[984] Zoning bylaws can also specify environmentally protective rules, such as building setbacks that require buildings to be located 15 to 30 metres back from natural boundaries.[985] Setbacks can protect marine riparian vegetation, which in turn can support natural shoreline functions and provide necessary shade for forage fish and other species. "Conditions of

use" can also be used to limit parcel coverage, building height, and setbacks for different types of uses.

Weaknesses of Zoning

In developed areas, coastal property owners may attempt to manage coastal erosion by hardening the shoreline with seawalls and other structures. This can interfere with natural coastal processes that transport sediments along the shoreline, and can also lead to coastal scouring and erosion on adjacent properties. Valuable shoreline habitats, such as the beaches that forage fish and other species rely on, may be damaged or lost. At present, there is legal uncertainty about the ability of local governments to regulate seawalls and other structures designed to protect upland properties.

In a recent case, the BC Supreme Court found that a property owner's common law right to protect upland property from coastal erosion meant that the Gabriola Island Local Trust Committee could not enforce its zoning bylaw, which prohibited all structures within thirty meters of the natural boundary by requiring the owner to remove two retaining wall structures at the natural boundary. The court did agree that the local trust committee could require the removal of other structures (such as a deck) not connected with erosion protection. As well, the court appeared to leave open the question of whether the local government could regulate the type of protection, for example, by requiring a soft shore approach to protection that incorporated natural features. The case is now under appeal by the local authority.[986]

A zoning bylaw is typically a cookie-cutter approach that does not address more site-specific concerns such as particular natural features and ecological values. For larger parcels, it may be possible to implement one-off, comprehensive development zones that address unique or specific natural features or environmental values.

Zoning powers can be used to regulate setbacks and siting, and are often combined with landscaping and runoff powers to regulate vegetation removal, impermeable surfaces, paving, or grading. As with most local government tools, zoning works best when combined with other regulatory tools.[987]

Finally, cases where local governments have been trying to address ongoing problems related to abandoned and derelict vessels illustrate some of the specific limitations of local government zoning and related powers. This is an area subject to federal jurisdiction and regulation,[988] but, as noted

above, some local governments are taking on management of moorage to expedite the implementation of solutions for their communities, and in hopes that proactively managing moorage and boat storage will reduce the occurrence of future problems.

Development Permit Areas: *Local Government Act,* RSBC 2015, c 1, Part 14, Division 7; *Islands Trust Act,* RSBC 1996, c 239, section 34.1(1)(b)

Development Permit Areas are used to identify areas where a further layer of site-specific regulation is applied to ensure that development achieves specific objectives. In the case of environmental DPAs, they are usually designated across areas that have similar physical characteristics, and where careful regulation of development or redevelopment can achieve desired environmental objectives.

DPAs do not change land uses, but they help shape how development or redevelopment occurs on specific sites and subdivisions within the designated area. Property owners are required to obtain development permits before undertaking certain activities within the DPA, including subdividing land, constructing or altering a building on that land, and, in some cases, altering the land in any way. These development permits can impose significant conditions and requirements on any development within a DPA, including conditions to protect the environment, prevent erosion, and so on.[989] To ensure that a DPA is not overly restrictive on activities with minor impact, local governments can also specify activities that are exempt from its application.

Local governments may designate DPAs for a variety of purposes, including to protect the natural environment, its ecosystems, and biological diversity, and to manage natural hazards.[990]

DPAs are designated through a local government's official community plan, which must also list the special conditions or objectives that justify the designation, and how these conditions or objectives will be addressed.[991] Often DPAs require that the applicant obtain the professional opinion of a biologist or an engineer, for example. DPAs are often used in combination with other local government tools, such as zoning, impact assessments, and regulatory bylaws.[992]

Local governments may also set requirements for property owners to provide information about the impact of proposed development on the natural environment, by designating Development Approval Information Areas.[993] Effectively, this is the local government version of an environmental impact

assessment, which can assist local government staff in deciding on appropriate conditions for a development permit.

Development permits may:

- require a baseline description of the site by a qualified professional
- identify areas to remain free of development, except in accordance with conditions in the permit
- require protection or restoration of natural features, such as planting or retaining vegetation or trees, and replanting disturbed areas
- require that shoreline protection approaches to prevent erosion and flooding be as soft as possible
- restrict building on areas subject to bank instability
- require protection of fish habitat and riparian areas, including through planting of vegetation or trees, and control of drainage and erosion.[994]

Examples of Coastal or Marine Development Permit Areas

Regional District of Nanaimo, Development Permit Area 4 – Marine Coast

The Regional District of Nanaimo has created specific Development Permit Areas under its official community plan that apply to the protection of coastal marine areas.[995] DPA-4 – Marine Coast applies to areas 30 metres below the natural boundary and 15 metres landward.[996] The Marine Coast DPA applies to estuarine areas, along with another DPA designed to protect freshwater and fish habitat.[997]

The OCP notes that the shorelines in areas addressed by the community plan "have high ecological value and need to be carefully managed to avoid potential negative impacts of development."[998] In particular, the DPA aims to undo the negative impacts of upland development by protecting backshore vegetation (dune grass, salt-adapted plants and shrubs), which "forms a distinct habitat zone and is important in stabilizing the upland sediments and preventing erosion."[999]

The objectives for the Marine Coast DPA include:

- planning new development in a way that protects the physical integrity and ecological value of shorelines, foreshore, and upland areas
- balancing new development with environmental conservation and restoration in shoreline areas
- maintaining public safe use and access to these areas for recreation, without compromising ecological integrity.[1000]

Guidelines to achieve these objectives include limiting development in the area so that it does "not negatively impact the ecological health of the immediate area, disrupt coastal sediment transport processes, or impede public access along the shore."[1001] Native vegetation is to be retained, and any shore protection structures should be the "softest" possible.[1002]

Salt Spring Island, Development Permit Area 3 – Shoreline

Salt Spring Island has established a DPA for shoreline waters that extends 300 metres out into the water from the natural boundary, and 10 metres landward.[1003]

The official community plan provides specific guidelines on how development should be conducted within the Shoreline DPA, including:

- retaining or replacing native vegetation and trees, to prevent erosion and protect habitat[1004]
- providing for flushing of water, to allow natural shoreline processes, including movement of aquatic life[1005]
- preventing docks from being constructed over shellfish beds, or resulting in the removal of kelp or eelgrass beds[1006]
- limiting shoreline stabilization for existing structures, and reducing the need for stabilization for new structures.[1007]

Strengths of Development Permit Areas

Local governments can use DPAs to impose significant protections from development on the land they apply to, and allow for site-specific controls on development. The requirement for these permits is attached to the land, and applies to successive property owners.[1008]

Development permits typically require that the applicant obtain guidance from a qualified professional. Coastal and marine DPAs should specify that the professional have specific coastal expertise.

Development permits issued within DPAs that have been designated to protect development from hazardous conditions may, among other restrictions, specify areas that must remain free of development, except in accordance with conditions in the permit, in order to protect from flooding, erosion, rockfalls, and other natural disasters.[1009]

Weaknesses of Development Permit Areas

There is no direct penalty for property owners who fail to obtain or adhere to development permits (although performance bonds may be required as a

condition of a development permit, such as for landscaping requirements). To enforce a development permit, a local government must spend the time, energy, and money to apply for a court-ordered injunction.[1010]

The designation of a DPA must be justified through objectives listed in the OCP, which must also specify the guidelines for achieving the objectives.[1011] Applying the guidelines may be challenging if local government staff capacity and relevant expertise are limited. Relying on reports from qualified professionals engaged by applicants may not guarantee that objectives are being met.[1012]

For related reasons, establishing new Development Permit Areas may be challenging. In some communities, there has been significant pushback from developers and property owners, because the process of obtaining a development permit is seen as costly and time-consuming.[1013] On the other hand, it may be possible to adjust development permit processing approaches so that applicants who clearly follow guidelines – for example, respecting buffer areas and other requirements – are fast-tracked. Despite challenges, many local governments in British Columbia now use DPAs to protect environmentally sensitive areas.

Municipal and Regional Parks: *Community Charter,* SBC 2003, c 26, section 30; *Local Government Act,* RSBC 2015, c 1, sections 278, 559, 564(4)

Local governments can reserve or designate land that they own as public parks, and there are also mechanisms to obtain land for park purposes during property development. For example, during subdivision, a local government may require up to 5 percent of the land to be dedicated as parkland, or require cash-in-lieu, which is paid into a reserve fund for parkland acquisition. Separate from this, funding for larger parks can also be assessed as part of development cost charges.[1014]

While local and regional parks will usually include only land upland of the natural boundary, protection of these coastal areas as parks can provide benefits for adjacent marine ecosystems, as well as an opportunity to manage recreational access to the shoreline. Not infrequently, local governments also obtain recreational leases for the foreshore area from the province in order to support more active management and control of these areas as public places.

It should be noted, however, that designation as a public park is generally taken to mean some level of public access, and protection for areas that are environmentally sensitive, such as wetlands, may be considered for more

CASE STUDY 19 Whytecliff Park

Located just west of Horseshoe Bay, the offshore area adjacent Whytecliff Park in West Vancouver is a well-known diving site and home to rockfish, lingcod, crab, sculpin, anemones, starfish, harbour seal, and the occasional wolf eel and giant octopus.[1015] Efforts to protect this area began in the late 1960s. While spearfishing had been a popular activity, it was discovered that some of the fish were nearly 100 years old. In 1973, the Municipality of West Vancouver declared the offshore area a marine park, and erected a sign at the park warning anyone who hunted, speared, snared, netted, trapped, or otherwise killed, maimed, or removed a plant or animal could be fined up to $500.[1016]

West Vancouver lacked the jurisdiction to enforce this rule, however, as the Constitution gives the federal government authority to regulate fisheries. In 1992, the BC Marine Life Sanctuaries Society (MLSS) decided to advocate for the creation of a federal marine protected area (MPA) in Whytecliff to prohibit "all but non-consumptive use of marine resources."[1017] Through a series of province-wide focus groups and meetings, involving government representatives, non-governmental organizations (NGOs), and local residents, the organization built strong community and stakeholder support to designate the marine area as an MPA.[1018]

The stakeholder group reached out to Fisheries and Oceans Canada, which agreed to implement a series of fisheries closures under the *Fisheries Act,*

restrictive designations where they fall on public lands owned by the local government. Another option that can be considered is to include environmentally sensitive areas within parks, but to carefully manage public access through trail networks and viewing areas.

Requests for Vessel Operation Restrictions

The *Vessel Operation Restriction Regulations,* enacted under section 136(1)(f) of the *Canada Shipping Act, 2001* permit the Minister of Transport to impose spatial restrictions on vessels, including no-go zones for all vessels, prohibited areas for motorized vessels, speed-restricted areas, and restrictions on certain recreational activities such as water skiing.

effectively ending the extraction of living marine resources within the park.[1019] Implemented in 1993, these fisheries closures, renewed annually, combined with the onshore municipal park designation, created the first no-take marine area in Canada. Canada has so far has rejected calls to designate Whytecliff Park as an official MPA under the *Oceans Act* or other legislation. As a result, Whytecliff has been referred to as a "pseudo marine protected area," but remains one of the only places in Canada with long-term no-take protection.[1020]

Several unique characteristics helped bring about the relatively quick success in protecting the Whytecliff Park marine area. There was strong stakeholder support to protect the area, thanks in part to the open and inclusive nature of the stakeholder meetings, which focused on collaboration, local involvement, addressing of stakeholder concerns, and achievement of a common goal.[1021] The fact that Whytecliff was already identified in the community as a marine park – which many people assumed was protected – eliminated several use conflicts often faced by areas seeking protection. The park's small size did not threaten the fishing industry. Whytecliff's popularity as a scuba diving site also meant that there was a legion of divers who supported the idea of marine protection. Additionally, "Whytecliff's proximity to a densely populated urban core was a major selling point for the project as its conservation message could potentially reach more people than a more remote place would."[1022]

Local authorities, defined to include local governments and departments of provincial and territorial governments or the federal government, can apply to Transport Canada for boating restrictions in particular areas.[1023] Transport Canada has prepared a guide for local governments on making these requests, which require detailed preparation and consultation with a variety of parties.[1024]

The regulations have been applied only rarely in BC coastal waters. One example is Cowichan Bay, where all motorized vessel traffic is prohibited in certain nearshore areas adjacent to the community of Cowichan Bay, except for a marked navigation channel to access the marinas and boat launches.[1025] The main objective of the restriction was to protect the eelgrass beds in

Cowichan Bay that provide important habitat for juvenile salmon. The regulations were put in place through the collaborative work of the Cowichan Valley Regional District, Cowichan Tribes, Transport Canada, Fisheries and Oceans Canada, RCMP, Living Waters, and the BC Wildlife Federation. Exemptions apply for Indigenous food, social, and ceremonial purposes, search and rescue, and ecological restoration work. Implementation of the regulation has involved installation of markers (buoys), and it should be noted that the local government may be responsible for funding or finding funds to cover the cost of these markers.[1026] These regulations are discussed in greater detail under "Regulations under the *Canada Shipping Act, 2001*" in Chapter 3.

Covenants: *Land Title Act,* RSBC 1996, c 250, section 219 | Ministry of Environment and Climate Change Strategy

Ecologically significant coastal and marine lands can also be protected through a covenant, which is a legal promise by a property owner, to a covenant holder, to do or not do something on the land. Statutory covenants are governed by section 219 of the *Land Title Act,* and there are two general types: restrictive covenants and conservation covenants.

Restrictive covenants are provided for in subsections 219(1) and (2) of the act. These covenants are held by a government body, such as a local government, a Crown corporation or agency, or the provincial government. A covenant is generally expressed through a voluntary, written agreement, though it can also be imposed on landowners without their signature.[1027] The covenant is then registered on the title to the land, so that the covenant stays with the land, binding subsequent owners.[1028] Covenants established under subsections 219(1) or (2) can restrict development or subdivision of the land, or set guidelines around how land may be built upon and developed.[1029] However, the primary use of the property affected is not necessarily tied to conservation.

Conservation covenants can be used specifically for environmental conservation, and usually include provisions related to management and monitoring of the land. These are established under subsection 219(4)(b) of the *Land Title Act,* which authorizes land, or amenities on the land, to be "protected, preserved, conserved, maintained, enhanced, restored or kept in its natural or existing state." Conservation covenants may be held by the provincial or local governments, or a Crown corporation or agency. For example, the Ministry of Environment and Climate Change Strategy itself holds conservation covenants that are intended to protect fish and wildlife habitat and riparian areas.[1030]

NGOs, such as a local conservancy or land trust, may also hold conservation covenants.[1031] For example, the Islands Trust Conservancy holds many conservation covenants that protect terrestrial and coastal areas within the Southern Gulf Islands. This may be accomplished either by a covenant under the *Land Title Act* or through fee simple acquisitions, where the NGO intends to hold the land as private property for conservation purposes. The Islands Trust Conservancy has developed comprehensive information on best practices for conservation covenants.[1032]

All covenants under the *Land Title Act* are intended to last forever. However, they may be modified or removed in one of two ways. First, the landowner may request to modify or remove the covenant. If the covenant holder agrees, then the change can be made.[1033] If the covenant holder does not agree, then the property owner may apply for a court order under section 35 of the *Property Law Act* to modify or cancel the covenant.[1034] The party applying for the change will have to prove that the change is warranted based on one of the factors listed in section 35(2) – for example, that the covenant is obsolete, that the covenant impedes a reasonable use of the land, or that the covenant is not valid.

Second, covenants under subsection 219(4) are no longer enforceable if the organization or person holding the covenant dissolves or dies and no one has been assigned to take over as covenant holder.[1035]

Landowners who agree to environmentally protective covenants on their property may be eligible for federal tax benefits and a municipal tax exemption in the Islands Trust area. This is discussed in greater detail under "Tax Exemptions and Deductions" below.

Examples in British Columbia

NGOs like the Nature Conservancy of Canada (NCC), the Nature Trust of British Columbia, and Ducks Unlimited are involved in the acquisition and protection of coastal land, particularly estuaries. The Pacific Estuary Conservation Program (PECP), a partnership of government and non-governmental organizations, also supports purchases of privately owned coastal land in British Columbia for protection purposes.[1036]

Examples include:

- Tidal Flats Conservation Area, a parcel of estuary land near Bella Coola
- Swishwash Island, one of the few undiked islands in the Fraser River Delta

- Gullchucks Estuary Conservation Area, which the NCC manages with the Heiltsuk First Nation
- Baikie Island Nature Reserve, and another parcel in the Campbell River estuary.[1037]

Strengths and Weaknesses of Covenants

While only 5 percent of British Columbia's land is privately owned, most of this is in highly developed areas in the southern part of the province. As a tool to protect private land, restrictive covenants can contribute significantly to environmental conservation in these areas. In coastal areas, because private property usually ends at the natural boundary, the usefulness of restrictive covenants will mainly be limited to marine riparian areas, rather than shorelines or marine areas.

CASE STUDY 20 Islands Trust Conservancy covenants

The Islands Trust Conservancy holds over ninety conservation covenants within the Gulf Islands. Landowners can submit proposals to covenant their property to the Islands Trust Conservancy board, which then decides whether to enter into a covenant on the area. The board is more likely to protect areas if they include sensitive ecosystems, key habitats for rare or at-risk native plant species, habitat critical to native wildlife, or special geological features.[1038]

Some conservation covenants within the Islands Trust area are part of the Natural Area Protection Tax Exemption Program (NAPTEP).[1039] Examples include:

- Wallace Point NAPTEP Covenant, North Pender Island, which protects a coastal habitat supporting marine and terrestrial species, including river otters, seals, and Bald Eagles[1040]
- Little D'Arcy NAPTEP Covenant, Little D'Arcy Island, which protects coastal bluffs and woodlands
- E,HO, (Medicine Beach) Nature Sanctuary, Pender Island, which protects a unique coastal and wetland area that is a sanctuary for migrating and breeding birds.[1041]

Conservation covenants are very flexible, and can be tailored towards the particular needs of the land and wildlife. They can also be imposed on part or all of the property, enabling the landowner to protect particularly sensitive areas while maintaining use on the rest of the property. They can also be organized and held by non-governmental groups, relieving some pressure from government and enabling community and environmental organizations to take the initiative in protecting local areas.[1042]

Finally, conservation covenants are intended to last indefinitely, unless the parties agree to modify or cancel the covenant. This provides long-term protection of land. It also imposes long-term obligations on landowners and may make the property less valuable in the future, which can deter landowners from entering into restrictive covenants. The potential for tax benefits through property and income tax exemptions may help offset this difficulty, however.

Tax Exemptions and Deductions: *Islands Trust Act,* RSBC 1996, c 239, Part 7.1 | Ecological Gifts Program, Environment and Climate Change Canada

Tax exemptions are a tool that local governments in the Islands Trust can use to promote actions by private landowners to protect natural features on coastal properties.

As well, private lands protected through conservation covenants are eligible for Environment Canada's Ecological Gifts Program, which results in tax deductions for corporate donors and tax credits for individual donors.[1043] The land must be certified as "ecologically sensitive" in order to qualify for the Ecological Gifts Program.[1044]

Islands Trust Natural Area Protection Tax Exemptions

Part 7.1 of the *Islands Trust Act* and the *Islands Trust Natural Area Protection Tax Exemption Regulation* establishes the Natural Area Protection Tax Exemption Program.[1045] This program allows the Islands Trust to exempt eligible land on privately held property from 65 percent of municipal property taxes.[1046]

In order for land to be eligible for the tax exemption, it must meet several requirements. First, it must be protected by a conservation covenant held by the Islands Trust Conservancy, the Islands Trust Council, or the local trust committee under section 219 of the *Land Title Act.*[1047] Second, the land must be within an area designated by the Islands Trust Council as an eligible area.[1048] Finally, the area must have at least one of the natural values and

amenities listed in the regulations. These include areas undisturbed by human activity and that are representative ecosystems or provide valuable habitat for plants; areas that are critical habitat for wildlife; or areas with significant geological, historical, social, or recreational features.[1049]

The local trust committee may cancel the tax exemption if the property owner contravenes the covenant.[1050] The *Islands Trust Act* also requires that the local trust committee give public notice before removing a conservation covenant to which a natural area exemption certificate applies.[1051]

See Case Study 20, "Islands Trust Conservancy covenants," for examples of NAPTEP covenants in British Columbia.

Strengths and Weaknesses of Tax Exemptions and Deductions

Tax exemption and incentive programs do not create protection for land on their own, but encourage voluntary action by property owners to protect part or all of their property. This is useful because a conservation covenant may affect the economic value of a private property, and it also creates long-term obligations for landowners. Tax exemptions and federal tax benefits may help to offset these implications for property owners who want to play an active and direct role in conservation of land and ecosystems.

While government authorities cannot control whether specific properties will be protected with conservation covenants or as ecological gifts, the frameworks for eligibility require that properties be in certain areas and meet certain requirements, which helps provide some level of strategic guidance that can complement other spatial regulatory and policy tools.

7

INTERJURISDICTIONAL LEGAL COORDINATION

THIS CHAPTER REVIEWS HOW marine and coastal protection is coordinated across multiple jurisdictional authorities in British Columbia. In some cases, this has led to interjurisdictional arrangements formalized by regulations or by memoranda of understanding (MOUs) or other agreements; in others, the coordination is supported by planning and more ad hoc arrangements.

In this chapter, the term "interjurisdictional" means that two or more orders of government are acting in a coordinated manner in order to address instances of overlapping jurisdiction. This is especially important for marine protection, because federal, Indigenous, provincial, territorial, and local governments have overlapping responsibilities when it comes to protecting the ocean.[1052] For example, interjurisdictional agreements are often negotiated to develop and assess proposals for candidate marine protected area (MPA) sites, and to manage MPAs.[1053]

Overlapping jurisdiction is an element of Canada's constitutional framework, and is supported by the principle of cooperative federalism, which accommodates overlapping jurisdiction between all orders of government, including Indigenous governments.[1054]

This chapter addresses the following approaches to interjurisdictional coordination in British Columbia:

- coastal planning, marine spatial planning, and integrated coastal/oceans management

- interjurisdictional management plans for estuaries, a particularly valuable and threatened type of coastal ecosystem in British Columbia, which are also sites of significant overlapping jurisdiction
- layered approaches, where areas are co-designated or multiple designations are applied to protect a particular area.

Due to the volume of material, this chapter focuses on agreements between two or more orders of government concerning the identification, designation, or management of a particular marine or coastal area in the province. It does not discuss the full range of interjurisdictional agreements applicable to coastal and ocean zones in British Columbia, such as broad MOUs that promote collaboration,[1055] reconciliation agreements,[1056] and other government-to-government agreements.[1057]

COASTAL AND OCEAN PLANNING: INTEGRATED COASTAL MANAGEMENT AND MARINE SPATIAL PLANNING

Land-use planning has a long history in Canada and other countries. Coastal planning, which typically focuses on planning for the water and land within a kilometre or two of the shore, is a more recent phenomenon.[1058] Planning for marine areas, in the form of marine spatial planning (MSP) or ocean planning, is an even more recent phenomenon.

MSP is a comprehensive form of marine management that "look[s] at the 'bigger picture' and [manages] current and potential conflicting uses, the cumulative effects of human activities, and marine protection."[1059] MSP is not a substitute for single-sector management, but rather a practical way to improve the way marine space is used, balance development with ecological protection, and engage citizens in a transparent process to deliver all of the ocean's benefits.[1060] MSP is rapidly spreading around the world as ocean uses intensify. An important goal of MSP is to identify areas that require enhanced protection, such as MPAs.

In Canada, ocean uses are regulated under several different laws and through a variety of government agencies. This can lead to conflicting decisions for different ocean uses in the same area. For example, a federal decision to approve an increase in oil tanker traffic in one area may conflict with another federal decision to designate the same area as critical habitat for endangered marine mammals, and with an Indigenous government's decision to restore the ecosystem of that area in order to resume shellfish harvesting.

Within coastal areas in British Columbia, the province has jurisdiction over the foreshore (or intertidal zone), but has tended not to exercise this jurisdiction, leaving a gap in coastal management. Coordinated regulation of all ocean and coastal sectors (such as fisheries, shipping, and oil and gas) across all orders of government is a way to achieve more harmonized, consistent, and comprehensive management.[1061] Other jurisdictions, such as Australia, New Zealand, and the European Union, have achieved this coordination through integrated coastal management, which reduces fragmentation and increases communication and cohesion, with the overall goal of better management of coastal zones and connected marine waters.[1062]

Integrated Management Planning under the *Oceans Act*

Canada's *Oceans Act* requires the preparation of integrated ocean management plans, but does not define this term.[1063] The act directs the Minister of Fisheries and Oceans to lead integrated management planning for all estuaries, coastal waters, and marine waters under Canadian waters or within the exclusive economic zone (EEZ), and engage in collaborative planning involving all federal ministers, boards and agencies, provincial and territorial governments, and affected Aboriginal organizations and coastal communities.

In Policy and Operational Framework for Integrated Management of Estuarine, Coastal and Marine Environments in Canada, Fisheries and Oceans Canada (DFO) outlined how it plans to meet the integrated management planning requirements under the *Oceans Act.* DFO has described two types of ocean plans for larger and smaller scales, respectively: Large Ocean Management Areas (LOMAs) and Coastal Management Areas.[1064]

The plans are supposed to identify ecosystem-based management objectives for marine ecosystem structure and function, such as productivity, key species, and sensitive habitats. The policy states that the objectives may be expressed as limits on ecosystem conditions that should be avoided. If the limit is surpassed, the plans are meant to trigger management actions to improve ecosystem health, including identifying candidate areas for MPAs, ecologically sensitive habitat, and marine species and special features in need of special protection. Progress on LOMAs has occurred, such as the Pacific North Coast Integrated Management Area (PNCIMA) Plan, addressed below. No Coastal Management Areas have been developed to date.

Integrated Management under Provincial Law

British Columbia has no comprehensive law for marine spatial planning, coastal planning, or proactive integrated ecosystem-based management in

the ocean. Although, at the time of writing, the province has committed to developing a coastal marine strategy which may include legislation, there is currently no provincial equivalent to the federal *Oceans Act.* This makes British Columbia an outlier compared with provinces in Atlantic Canada and with neighbouring US Pacific states, which have laws dedicated to the protection or coordinated management of coastal zones and ocean areas.[1065] As a result, the province's most crowded coastal and ocean areas, located in the Salish Sea, have no guiding plan. In particular, there is no plan coordinating multiple jurisdictions in the waters adjacent to its busiest port, Port Metro Vancouver.

However, the province has completed a number of marine and coastal plans in certain areas of the province, described below. Some features of the plans involve spatial protection, such as zoning, and recommendations about uses in specified locations.

Provincial Coastal and Marine Plans on Vancouver Island

In the early 2000s, the Province of British Columbia developed seven coastal plans for a number of relatively small but ecologically important areas on northern Vancouver Island that were also subject to economic development pressures:[1066]

- Baynes Sound Coastal Plan
- Cortes Island Coastal Plan
- Johnstone-Bute Coastal Plan
- Kyuquot Sound Coastal Plan
- Malaspina Okeover Coastal Plan
- Nootka Coastal Land Use Plan
- North Island Straits Coastal Plan.

The province developed these plans as part of a broader land-use planning initiative, and they apply only to coastal and estuarine areas, or even more narrowly to specific activities in those areas (e.g., "shellfish aquaculture").[1067] The plans included "conservation" as a designated use. The plans often identify environmentally sensitive areas, seek to direct development and other activities away from such areas, and offer strategic direction for provincial tenure applications.

The provincial government put significant work into these plans, including mapping ecosystem values and collaborating with rights holders and other authorities, including First Nations and federal agencies. How-

ever, the government did not intend to translate these plans into regulatory objectives, meaning they have persuasive, but not legal, force.[1068] The plans refer to regular updating, but no updates have occurred.

West Coast Aquatic Coastal Strategy for the West Coast of Vancouver Island

The west coast of Vancouver Island has rich and diverse coastal and marine ecosystems, important fisheries, and more than a third of the world's marine mammal species.[1069] West Coast Aquatic, a regional cooperative aquatic management body, was the first integrated ecosystem body recognized under the federal *Oceans Act.* Its board is composed of: (1) two representatives appointed by the Government of Canada; (2) two representatives appointed by the Province of British Columbia; (3) members appointed by the Nuu-chah-nulth First Nations (as per their governance models); (4) two representatives appointed by the regional districts; and (5) following nomination from relevant and affected coastal communities, ten non-government members jointly appointed by the governments.[1070]

In 2012, West Coast Aquatic produced the Coastal Strategy for the West Coast of Vancouver Island, a stand-alone strategic plan for this large area. All four orders of government endorsed the ecosystem-based, culturally nuanced strategy, which establishes shared values, goals, and priorities for action on the coast, but does not use designations or zoning. A refresh of the strategy was undertaken in 2022.[1071]

The strategy identifies marine spatial planning as a key priority, as a way to achieve the following goals (among others):

- protecting significant ecological, social, economic, and cultural values necessary to maintain a high quality of life in Barkley and Clayoquot Sounds
- matching activities and uses to suitable areas
- identifying areas that require increased protection as a result of their environmental and ecological significance
- encouraging economic development in a way that is compatible with the environment and existing activities and uses.[1072]

Unlike the provincial coastal plans described earlier, the West Coast Aquatic Coastal Strategy for the West Coast of Vancouver Island was developed collaboratively by representatives from different orders of government, including the Nuu-chah-nulth First Nations.

Northern Shelf Bioregion/Great Bear Sea: One Area, Three Planning Processes

The Northern Shelf Bioregion (NSB), also known as the Pacific North Coast or the Great Bear Sea, is a vast and biologically rich area, home to an abundance of marine wildlife.[1073] It encompasses over two-thirds of British Columbia's coast, extending from northern Vancouver Island to the Alaska border, and westward to the base of the continental shelf slope.[1074]

The NSB is the location of some of the most advanced marine planning efforts in Canada.[1075] Governments have completed two such efforts in the area, and have completed a draft plan for Canada's first MPA network for the region. These efforts build upon the marine plans of the First Nations of the Pacific North Coast, whose cultures date back to time immemorial.

This section covers these three planning processes. The first, the tripartite (First Nations–British Columbia–Canada) Pacific North Coast Integrated Management Area process, created a high-level strategy for conservation and management of the area and was completed in 2017. The second, a bipartite (British Columbia–First Nations) Marine Plan Partnership (MaPP), was completed in 2015 and developed an action framework for the region and four subregional plans. Finally, the MPA network process has identified a network of existing and new MPAs to ensure the long-term conservation of the area.

The Pacific North Coast Integrated Management Area

The First Nations of the Pacific North Coast engaged in marine management long before the arrival of Crown governments. With the proclamation of the federal *Oceans Act* in 1997, however, the federal government, specifically Fisheries and Oceans Canada, became responsible for integrated management planning throughout Canada's waters. PNCIMA was one of the five Large Ocean Management Areas identified in the 2005 *Canada's Oceans Action Plan,* DFO's strategic plan for meeting the *Oceans Act* requirement.[1076]

The goal of the PNCIMA plan (often referred to as just "PNCIMA") was to "ensure a healthy, safe, and prosperous ocean area by engaging all interested parties in the collaborative development and implementation of an integrated management plan."[1077] PNCIMA was also tasked with providing input into the development of a federal-provincial network of MPAs.[1078]

In 2010, Indigenous umbrella organizations, the Government of Canada, and the Province of British Columbia signed a tripartite memorandum of

understanding for PNCIMA, representing a government-to-government relationship "of a different character than that between governments and stakeholders."[1079] The PNCIMA governments intended to develop marine zoning, along with recommended uses and activities associated with each zone.

However, partway through the development of the plan, due to political concerns, the federal government changed the scope of the PNCIMA planning process and withdrew from a funding agreement.[1080] The revised PNCIMA process omitted multi-stakeholder intergovernmental working groups, the marine technical analysis team, regional forums, capacity grants for stakeholders, and technical and administrative support. The province and Indigenous nations scaled back their involvement in PNCIMA to some extent but were still full partners, and they approved the completed plan along with the federal government in 2017. The final plan contains an ecosystem-based management (EBM) framework but no spatial plan and no zones.[1081]

The Marine Plan Partnership

In response to the federal government's reduced scope for PNCIMA, the province and the Indigenous governments decided to form the Marine Plan Partnership. MaPP covered the same geographic area as PNCIMA, used similar bilateral rather than tripartite governance structures, and involved the same provincial and Indigenous governments as planning partners.[1082] The MaPP initiative produced marine spatial plans with large-scale zones for four subregions: Haida Gwaii, North Coast, Central Coast, and North Vancouver Island. The plans were developed to "create opportunities for sustainable economic development, support the well-being of coastal communities, and protect the marine environment."[1083]

First Nations' marine-use plans were an important underlying component of each MaPP plan, providing background information, protocols, and key policies for marine resource management and marine uses, including spatial zoning designations.[1084] The final plans reflect Indigenous laws, values, and traditions.

Comprehensive multi-sector ocean zoning is relatively new, and MaPP's recommended spatial zones for the ocean are a first for Canada (LOMA plans completed in other regions of Canada do not use zones). The MaPP plans allocate marine space and define compatible and incompatible uses for each of the three zones: Protection Management Zones (PMZs), General

TABLE 10 Marine Plan Partnership (MaPP) zoning summary

Zone type	Total area (km^2)	% of MaPP region	Shoreline length (km)	% of MaPP region shoreline[1]
Protection Management Zone (PMZ)	16,278	16	10,850	37
Special Management Zone (SMZ)	3,786	4	4,004	14
General Management Zone (GMZ)	63,292	62	8,271	28
Existing and proposed protected areas not within PMZs	14,050	14	5,573	19
Areas without zoning	4,118	4	753	2
Total	101,524	100	29,451	100

1 Shoreline is the intersection of the apparent high-water line with the land (including islands).

Management Zones (GMZs), and Special Management Zones (SMZs). Zoning designations apply to the entire water surface, water column, and seabed. Zones are intended to "reduce present and potential conflicts among uses and activities, provide business and user group certainty, improve efficiency in permitting decisions, provide information regarding marine protected area network planning, and give general guidance for resource managers."[1085]

Table 10 summarizes the percentage of the plan area in each type of zone. Most of the MaPP region is zoned as GMZ (62 percent); PMZ comprises 16 percent, and SMZ comprises about 4 percent.[1086]

MaPP plans are currently being implemented through implementation agreements, written agreements between the province and partner First Nations that set up organizational structures, identify priority actions for plan implementation, and lay out general provisions on how the governments will work together. MaPP plans are also used to guide integrated fisheries management planning within the jurisdictional powers of the First Nations and the province, tenure applications, and referral processes, which governments use to solicit input on proposed natural resource authorizations or projects from existing tenure holders, government agencies, and the public. The plans provide input to the creation of the Northern Shelf Bioregion MPA network.

Northern Shelf Bioregion MPA Network Planning Process

A planning process to create a network of MPAs is currently underway in the Northern Shelf Bioregion, an area with the same boundaries as PNCIMA and MaPP. The NSB MPA network planning process is co-led by federal, First Nations, and provincial governments, and is based on the 2014 Canada–British Columbia Marine Protected Area Network Strategy, which states that a "systematic approach to network planning will enhance the capacity of existing and future MPAs to achieve multiple goals and objectives that no one single MPA could achieve."[1087]

In 2017, the NSB MPA network planning process noted that there were over 185 provincial and federal MPAs protecting 28 percent of the Pacific coastline of British Columbia and 2.8 percent of the Pacific waters of Canada. The vision of the process is to create "an ecologically comprehensive, resilient and representative network of marine protected areas that protects the biological diversity and health of the marine environment for present and future generations."

A draft scenario for the MPA network was released to stakeholders in 2019 that proposed designating new protected areas that would cover an additional 5 percent of the bioregion. The draft network scenario also proposed changes to management measures in some existing MPAs, as well as in MaPP SMZs and PMZs, in order to increase the total amount of area in the bioregion under high protection (defined as IUCN categories Ib-III) to approximately 10 percent.[1088] Another 22 percent of the bioregion would be under moderate protection (IUCN categories IV–VI). The total footprint of the proposed network was 32 percent of the bioregion, with the remaining 68 percent of the region unprotected and subject to regular management measures.[1089] A draft MPA Network Action Plan was anticipated for release for public consultation in 2021. However, in December 2021, DFO informed the MPA Network Partners that it was unable to support the draft Action Plan because of objections to the proposed fisheries management measures in the Plan.[1090] Frustrations with DFO's failure to commit to the MPA Network Action Plan led the Kitasoo Xai'xais First Nation to announce the creation of the Gitdisdzu Lugyeks (Kitasu Bay) Marine Protected Area under its own Indigenous laws.[1091]

DFO eventually agreed to support a revised draft MPA Network Action Plan that was released for public consultation in September 2022. The total footprint for the network in the revised draft Network Action Plan encompassed 30 percent of the region. All management measures that were

previously proposed had been removed from the plan, and new management measures would only be developed during the implementation of the Action Plan. In lieu of proposed management measures, the Plan identifies "Activities of Concern" for each area. Without management measures, it is impossible to determine how much of the network will qualify as highly protected under IUCN definitions; however, the Plan recommends that 20–50 percent of the network, or 6–15 percent of the region, be highly protected. The Plan divides the proposed MPA network areas into three categories: Category 1 areas, which are planned for implementation in 2025; Category 2 areas, which are planned for implementation in 2030; and Category 3 areas, for which there is currently no timeline for implementation. Following public consultations, an announcement from the government partners on adoption of the MPA Network Action Plan is anticipated in early 2023.

Strengths of Marine Planning

Large-scale, comprehensive marine plans for marine and coastal areas, such as the PNCIMA and MaPP plans, are intended to improve overall marine health. The plans aim to account for all human uses in a particular part of the ocean; integrate environmental, social, and economic objectives; and allocate space to minimize conflict between users. Other goals are to provide greater certainty for marine users, and to manage cumulative impacts.

The Protection Management Zones designated in the MaPP plans provided "valuable information" for the development of an MPA network.[1092] As PNCIMA did not contain zoning, it did not assist with MPA identification.

The PNCIMA and MaPP plans share an ecosystem-based management framework. EBM differs from conventional resource management by accounting for the entire system, instead of individual ecosystem components. EBM addresses interactions among ecosystem components and management sectors, as well as cumulative impacts of multiple activities. In EBM, humans are an integral part of the ecosystem. Scientists and managers believe that large-scale, comprehensive EBM is critical for effective marine conservation and resource management.[1093] The use of EBM in MaPP and the MPA network planning process follows best practices and increases cohesion between the two processes, and should ultimately lead to more effective and efficient outcomes.

The benefits that emerged from the more detailed marine spatial planning process (MaPP), which included detailed multi-sectoral zoning and

produced four subregional plans, were greater than those from the "high-level" strategic plan (PNCIMA) in several respects:

- The conclusion of the MaPP planning process led directly to more foreshore and marine areas in the Great Bear Sea being included in conservancies, a designation under the BC *Park Act* that respects the compatibility of certain Indigenous activities with conservation goals.[1094]
- MaPP's governance innovations include effective co-leadership in the planning process by governments (Indigenous and provincial) not typically seen as leaders in oceans governance in Canada, and the incorporation of Indigenous values in the plans.
- MaPP plans followed scientific best practice by delineating detailed zones using internationally accepted International Union for Conservation of Nature (IUCN) guidelines. Protection Management Zones in the MaPP plans give priority to conservation. Each PMZ subzone is classified as one of the six protected area management categories outlined in the Guidelines for Applying the IUCN Protected Area Management Categories to marine protected areas.[1095] Each of these subzones has an associated chart of compatible uses: recommended, conditional, or not recommended, following the IUCN guidance. The governments chose to use the IUCN categories to provide a consistent, internationally recognized approach, and to help planners and stakeholders conserve a range of values in locally specific circumstances.[1096]
- The MaPP plans address issues critical for ocean health, such as climate change, cumulative impacts, and underwater noise.
- The MaPP detailed implementation strategy is designed to strengthen collaborative oceans governance, use the zones to direct activities, increase monitoring and enforcement, foster an EBM marine economy with an emphasis on local benefits from seafood and marine resources, and use adaptive management and research to better address climate change impacts.[1097]

Though experience is still recent, the benefits of marine planning around the world are emerging. An analysis of five representative marine spatial plans documented economic benefits, especially for offshore wind energy; environmental benefits from siting industrial uses away from sensitive habitat and reducing the risk of oil spills and ship collisions with marine wildlife; and social benefits from bringing stakeholders together and building trust.

The study found that marine plans also saved stakeholders time and money on site assessments, environmental impact studies, and legal fees by providing the necessary data upfront, and ensuring greater certainty and speed in the permitting process.[1098]

Weaknesses of Marine Planning

In the case of the NSB in British Columbia, the existence of two different sets of plans – MaPP and PNCIMA – for the same region indicates a lack of integration, contrary to the intent of the *Oceans Act,* which requires collaborative planning between all of orders of government.[1099]

Neither plan addresses federally regulated ocean uses, such as shipping and commercial fisheries, in detail. The MaPP plans purposely did not address federally regulated activities because the federal government did not participate in the process, whereas the PNCIMA plan contains general goals and objectives but lacks specific direction for ocean uses. The MPA network plan is an opportunity to remedy this gap by regulating shipping and fishing within protected areas.

The lack of a legal framework to implement coastal and marine planning means that the project-by-project approach continues. The objectives in the PNCIMA and MaPP plans are not binding on decision-makers. Both sets of plans are voluntary and rely on existing legal tools for implementation, such as existing marine protection designations under federal, provincial, and Indigenous laws, as well as existing laws to govern tenures, permitting, and approvals for marine activities. An MPA network will in part remedy this weakness by legally designating new MPAs and ensuring that new candidate sites, such as PMZs under MaPP, are protected in law. However, a more explicit and tailor-made legal framework would better implement the non-spatial plan elements and management of areas outside of MPAs.

Overall, PNCIMA, MaPP, and the NSB MPA network represent significant advances in marine and coastal spatial protection in British Columbia. Coastal plans from the 1990s were limited in their geographical scope, and were not designed to manage cumulative impacts or to advance ecosystem recovery in already-disturbed areas.[1100] As noted in one of the earlier plans: "As there is no way to estimate the actual range and number of new tenured uses that might occur as a result of the Plan, the environmental review provides only a rough approximation of potential environmental risks and benefits."[1101] These more recent plans, and particularly the NSB MPA network, provide a stronger foundation for conservation.

ESTUARY MANAGEMENT PLANS

Estuaries, where rivers meet the sea, are naturally rare, highly productive "super-habitats" that support large populations of fish and wildlife in a concentrated area.[1102] This chapter discusses estuary plans separately from other coastal and marine plans because of their ecosystem importance, the startling losses of estuary habitat that have already occurred, and the jurisdictional complexity of these areas.

British Columbia has over 440 ecologically valuable estuaries, used by an estimated 80 percent of all coastal wildlife. People congregate in estuaries as well. Estuarine ecosystems are frequently converted to human uses and are threatened by the impacts of climate change such as sea-level rise, ocean acidification, temperature change, reduced summer flows, erosion, sedimentation, and flooding.[1103] A recent comprehensive synthesis of the state of knowledge of estuarine activities and salmon found that the continued development of estuaries poses risks to wild salmon, British Columbia's most culturally and economically significant fish species.[1104]

The scale of loss of estuarine habitat in British Columbia is striking. Seventy percent of the Fraser River estuary wetlands have been diked, drained, and filled to reclaim land for development (the greatest cause of estuarine loss in the past), and this has more than likely had an impact on the Fraser River fisheries. Similarly, on Vancouver Island, about half of both the Nanaimo and Cowichan estuary wetlands has been lost.[1105]

The main methods used in British Columbia to spatially protect estuaries are:

- *Purchasing and protecting privately owned land.* A number of land trust organizations in British Columbia have purchased land in estuaries (as well as other sensitive areas), that is, acquired fee simple title, then leased this land back to the province. Typically, the province has a collaborative management agreement with the trust organizations, which rely on the lease payments for operations and monitoring of the land.
- *Designating estuaries with legal protection.* Approximately 61 percent of the estuary-watershed systems in British Columbia have some form of conservation designation; North Coast estuaries have greater protection than their southern counterparts.[1106] Provincial conservation lands such as Wildlife Management Areas are the most common form of designation for estuaries.

- *Implementing an estuary management plan.* Multiple orders of government collaboratively draft these plans, which include spatial protection recommendations such as area designations or colour-coded habitat classification maps with associated recommended uses and activities. There has not been a strong record of implementation of the estuary management plans developed to date, but some recent initiatives suggest that this tool could be used more effectively.

Estuary management plans arise from the need for coordinated management, because estuaries are characterized by a range of stakeholders, many activities, and overlapping authority from all orders of government (federal, First Nations, provincial, and local). The legal framework for estuary management plans in British Columbia varies. Plans can be formalized by order of the Lieutenant Governor in Council[1107] or a memorandum of understanding,[1108] or can be informal.

The province historically supported the development of estuary management plans in a number of locations, mostly in the 1990s. Often the plans were led by DFO, due to federal jurisdiction. A review of estuary plans in 2002 identified nine completed plans, predominantly for estuaries on the South Coast, and plans have been completed for two additional estuaries since then.

Interjurisdictional Protection of the Fraser River Estuary and Burrard

The two most significant aquatic ecosystems in the Lower Mainland of British Columbia are Burrard Inlet and the Fraser River Estuary. Both are governed by unique arrangements put into place by multiple orders of government. The Fraser River Estuary Management Plan (FREMP) and the Burrard Inlet Environment Action Program (BIEAP) mapped and monitored coastal habitat in the Lower Mainland, and supported local governments in coastal planning for environmental protection, but both programs were dissolved by the federal government in 2013. The Tsleil-Waututh Nation (TWN), the "People of the Inlet," now leads environmental stewardship in Burrard Inlet, most recently with an environmental action plan for the inlet.

History of Planning Efforts

The Fraser River Estuary is subject to a special Order in Council from 1977 that requires an environmental assessment for decisions that normally

would not trigger one, such as issuing a building permit or issuing a lease on Crown lands.[1109]

The Fraser River Estuary Management Plan was initiated in 1985. By the late 1970s, there had been concern among both stakeholders and governments that the ecosystems of the estuary were on the brink of collapse, and both the federal and provincial governments were initially motivated to take action. Panels of experts prepared a series of environmental studies that led to a plan of action. Initial ambitions involved coordinating the activities of federal, provincial, and local government agencies in the estuary. Indigenous governments were notably excluded from the government-to-government aspects of the program, and this was a fundamental weakness. FREMP, finalized in 1994, was developed under the guidance of Fisheries and Oceans Canada and the BC Ministry of Environment. Its stated vision was to maintain and ensure "a sustainable Fraser River estuary characterized by a healthy ecosystem, economic development opportunities, and continued quality of life in and around the estuary."[1110] FREMP funding partners were the BC Ministry of Environment, Environment and Climate Change Canada, Fisheries and Oceans Canada, Transport Canada, Port Metro Vancouver, and Metro Vancouver.

In 1991, the Burrard Inlet Environment Action Program was established by the same funding partners as a joint action program to protect and improve Burrard Inlet.

The two programs (FREMP-BIEAP) had a memorandum of understanding and were jointly administered beginning in 1996 from an office located in the city of Burnaby.[1111] BIEAP and FREMP coordinated the work of more than thirty partner agencies. Funding was provided by Environment and Climate Change Canada, Fisheries and Oceans Canada, the BC Ministry of Environment, Metro Vancouver, and Port Metro Vancouver.

A key weakness of FREMP and BIEAP was that they were not decision-making bodies, nor did they have any mechanism to establish binding legal objectives for decision-makers or even to develop policies for them. FREMP-BIEAP did have a mandate to consult extensively with community stakeholders, but over time, as it became apparent that hours spent in discussion would not lead to any tangible change in policy, many community members became disillusioned.[1112]

FREMP-BIEAP's greatest success was in coordinating and streamlining environmental reviews of projects from 1985 to 2013, providing a "one-stop shop" for project proponents and local governments. Both FREMP and

BIEAP also had secretariat functions that sponsored habitat assessment and environmental monitoring activities, and developed a series of action plans and a red, yellow, and green classification system for the estuary and the inlet; however, they lacked sustainable funding and any political or legal power. Eventually, partner funding disappeared and the federal government officially closed the programs' doors in 2013. At present, the Port of Vancouver reviews projects in the areas of the estuary controlled by the federal authorities, and the province adjudicates in the areas that it controls.[1113]

Spatial Management Tools

FREMP prepared several spatial management tools, including the management plan titled *A Living Working River,* endorsed by all twelve municipalities in the FREMP area. FREMP also developed an easy-to-use colour-coded mapping system of red, yellow, and green based on a habitat classification system (later adopted in other estuary plans, including that for the Courtenay River Estuary):[1114]

- Red-coded habitats are areas of high productivity fish habitat, and consequently the most restricted for development.
- Yellow-coded habitats are medium-productivity sites.
- Green areas are low-productivity sites and are best suited for future development.

The colour codes helped prospective developers select appropriate sites before applying for project approval. Another spatial management tool, Area Designations, identified the primary uses for areas within the estuary, such as log storage, recreation, conservation, or industry. When development was allowed in sensitive areas and fish habitat was lost, Fisheries and Oceans Canada required compensation projects. A subsequent review of those 151 projects in 2016 indicated a success rate in restoring habitat of only 33 percent.[1115] Although FREMP streamlined the project approval process for proponents, it may also have shielded decision-makers from accountability.

Still, prior to FREMP there had not been any coordinated attempts at estuary management on this scale in British Columbia, and one expert cited it as "the most comprehensive approach to estuary planning in British Columbia" due to its two main achievements – the habitat inventory and shoreline classification and the coordinated project review.[1116]

Tsleil-Waututh Nation's Burrard Inlet Action Plan

Most recently, TWN has been leading environmental stewardship in Burrard Inlet, releasing an environmental assessment of the inlet in 2015 and a State of the Environment report in 2016. TWN also created the Burrard Inlet Action Plan (BIAP), an Indigenous-led, science-based initiative to address poor environmental health in the area.[1117] BIAP proposes several strategies to monitor and review marine practices within the inlet, and develop policies to improve the marine environment.[1118] BIAP was spurred in part by the dissolution of FREMP-BIEAP, and recommends reinstituting a formal partnership between government agencies with appropriate representation from Indigenous governments.[1119]

The most current version of BIAP was released in 2017 and lists the key issues within the inlet: water quality, pollution, contamination, estuary degradation, shoreline loss, shoreline hardening, dredging, invasive species, climate change, habitat destruction, and the subsequent impact on various inlet-dependent species (including salmon, shellfish, birds, and marine mammals).

The plan identifies several marine spatial protection mechanisms, such as further mapping of nearshore habitats, and the identification of fish spawning beaches to support foraging fish production, which has been identified as a determinant of larger ecosystem health.[1120] The plan also proposes conservation of "critical nearshore habitat complexes" at Maplewood Flats Conservation Area, a site of significance for TWN.[1121]

Although BIAP is not a formal agreement between provincial, local, and First Nations governments and therefore does not establish binding protection for the marine environment, the BC Ministry of Environment considers it to be a "stewardship agreement."[1122] As a result, the plan does influence provincial policy and lays the groundwork for the identification of further monitoring and research.

Other Examples in British Columbia

Other examples of estuary management plans in British Columbia include:

- **Squamish Estuary Management Plan (SEMP)**. The SEMP was established in 1982 and updated in 1992 and 1999, with the goal of balancing the area's biological productivity with its economic potential.[1123] The plan created the Squamish Estuary Management Committee (SEMC), chaired by the District of Squamish, with members from the Squamish Nation,

federal and provincial regulators, and industry representatives from commerce, forestry, conservation, recreation, and rail. The plan divided the Squamish Estuary into three zones: a conservation area, an industrial/commercial area, and a transportation corridor. While the plan does not have any municipal regulatory effect respecting land use and development, the District of Squamish has integrated core SEMP objectives and plan principles into its official community plan.[1124] In 2007, following a recommendation under the plan, the Squamish Estuary was designated as the Skwelwil'em Squamish Estuary Wildlife Management Area, co-managed by the province and the Squamish Nation.[1125] In recent years, however, government partners have pulled back from the SEMP process: Fisheries and Oceans Canada, Environment and Climate Change Canada, and the Province of British Columbia have limited their involvement, and the District of Squamish has transferred its attention to its Marine Action Strategy.[1126]

- **Nanaimo Estuary Management Plan (NEMP)**. Planning for the Nanaimo Estuary, the largest estuary on Vancouver Island, was initiated in the early 2000s and finalized in 2006.[1127] The NEMP created the Nanaimo Estuary Management Committee (NEMC), made up of representatives from federal, provincial, local, and Indigenous governments, the logging industry, and community and environmental groups.[1128] The plan was purposely designed not to require "any new jurisdictions, regulations or bylaws," instead requiring NEMC members to implement it in accordance with existing laws and policy.[1129] The plan has been incorporated into other intergovernmental agreements between the Snuneymuxw First Nation and the province, including two memoranda of agreement to continue estuary management planning and cease litigation related to log booming that threatened the ability of the Snuneymuxw First Nation.[1130] It is also referenced in the reconciliation agreement that formed the Nanaimo Estuary Working Group to improve the estuary and develop impact benefit agreements related to impacts of logging. An ecological restoration and monitoring project in the Nanaimo Estuary, led by the Nature Trust of British Columbia in collaboration with the Snuneymuxw First Nation and other partners, aims to restore estuarine ecosystems, including the removal of approximately 2.5 kilometres of historical agricultural berms and dikes.
- **Campbell River Estuary Management Plan (CREMP)**. In 1996, the District of Campbell River created the CREMP, focusing on habitat restoration after years of damage from industrial uses like logging, marinas, shipping, float plane landings, and gravel removal.[1131] The plan was

designed to restore lost habitat for juvenile salmon and other species, manage industrial use, and promote conservation, parks and tourism, and First Nations inclusion.[1132] The process has increased dialogue among federal, provincial, and Indigenous governments.[1133] Overall, the plan has resulted in many positive changes, including habitat restoration efforts, new conservation covenants to protect land, and rezoning of riverfront areas to create parks and greenways.[1134] A new Wildlife Management Area is also in the process of development, although as of 2022 this process has been underway for thirteen years and is not yet complete.[1135]

- **Courtenay River Estuary Management Plan (COREMP)** *(not adopted);* **K'ómoks River Estuary Management Plan (KEMP)** *(under development).* In 2000, Fisheries and Oceans Canada commissioned and released the COREMP.[1136] Although this plan has been reviewed and updated more than once, it was never adopted by local governments as originally intended.[1137] In 2013, the name of the Courtenay River Estuary changed to the K'ómoks Estuary, and the K'ómoks First Nation is taking the lead on developing a new estuary plan as part of a broader land-use planning process.[1138] In 2014, the K'ómoks First Nation met with the Comox Valley Regional District and Project Watershed, a local NGO, to review the draft KEMP. It showed a need for some revision and input from the City of Courtenay and the Town of Comox. There are no recorded updates in recent years, and the K'ómoks First Nation is currently negotiating the jurisdictional status of the estuary.[1139]
- **Somass Estuary Management Plan**. In 2001, the Pacific Estuary Conservation Program (coordinated by Ducks Unlimited) purchased a 100-hectare parcel in the Somass Estuary. The estuary had been highly degraded by decades of effluent from the Port Alberni pulp and paper mill, log handling, and sewage disposal: approximately 66.5 percent of estuarine habitat is lost or degraded, and only 33.5 percent of the original estuary land base remains.[1140] The conservation purchase prompted the creation of the Somass Estuary Management Plan Steering Committee, with representatives from all orders of government, from community and industry, and from the planning process in 2003. The federal government enacted special regulations under the *Fisheries Act* to protect the sensitive ecosystem of Alberni Inlet and to mitigate the impact of the mill on migrating sockeye and chinook salmon.[1141] The Somass Estuary Management Plan informs the plans and policies of the City of Port Alberni and the Alberni-Clayoquot Regional District, particularly the environmental improvement objectives.[1142]

CASE STUDY 21 Cowichan Estuary Environmental Management Plan

One of the largest estuaries on the BC coast, the Cowichan Estuary has been degraded over time by diking for agriculture, land development, log handling, and water pollution from waste discharges, sewage disposal, and agricultural surface runoff.[1143]

The BC Ministry of Environment (as it was called at the time) introduced one of the province's first estuary management plans, the Cowichan Estuary Environmental Management Plan (CEEMP) through an Order in Council under the *Environmental Management Act* in 1986.[1144] Notably, the order takes precedence over all other provincial statutes, and requires sign-off by the Minister of Environment on any activities in the plan area (although the province now exercises its authority through the Ministry of Water, Land and Resource Stewardship rather than Ministry of Environment). This gave the CEEMP greater legal effect than other estuary management plans.

The plan is administered by a cross-jurisdictional committee of representatives of the Cowichan Valley Regional District, Ministry of Water, Land and Resource Stewardship, Cowichan Tribes, DFO, and the District of North Cowichan. The plan is intended "to provide a framework for environmental decisions and to balance environmental priorities and concerns with those of other interests and organizations." Although the plan does not set any measurable targets in relation to environmental outcomes, activities occurring within the boundaries of the CEEMP must be consistent with the plan and are subject to review by the CEEMP committee.

Strengths of Estuary Management Plans

Estuary management plans have the ability to protect and rehabilitate habitat, improve coordination and cooperation between different orders of government, and increase public input and buy-in. For these benefits to occur, however, the plans must be accompanied by administrative and financial resources.[1145]

One of the greatest strengths of British Columbia's estuary management plans is their focus on conservation and rehabilitation. The more successful plans have spurred greater estuary protection through protected area designations within the estuary, like the Skwelwil'em Squamish Estuary Wildlife

Agreements with four major industrial landowners were a key element of the plan and included requirements to reduce log storage from 49 percent to 19 percent of the intertidal zone. The Cowichan Watershed Board reports that "since the introduction of the plan, the foreshore area given over to log-booms and other industrial activities has been significantly reduced, and a significant amount of land is now secured for conservation."[1146]

A review in 2010 found that the CEEMP reduced conflict, provided certainty, and limited further environmental degradation.[1147] It noted, however, that the plan would benefit from the funding of a secretariat, and that stronger links between the plan and local government regulations would support environmental management objectives. The review also noted that there had been little improvement in water quality in the estuary, possibly pointing to the need to make stronger connections with upstream watershed planning and regulation. One NGO, the Cowichan Estuary Restoration and Conservation Association, reports that the plan has continuously been ignored in light of industrial expansion and exploitation.[1148]

In October 2019, a rezoning approval gave the green light for an abandoned log and lumber storage and shipping facility to become a marine metal manufacturing operation, known as Westcan Terminal, in the estuary. This rezoning is contrary to the conservation goals of the CEEMP, in that intensive industrial operations are expected to flush more contaminants into the estuary and undo years of conservation efforts. A local group, the Cowichan-Koksilah Estuary Defenders, is contemplating a judicial review of the rezoning decision.[1149]

Management Area, co-managed by the Ministry of Environment and Climate Change Strategy and the Squamish Nation.[1150] Conservation gains also arise from the implementation of restoration plans such as those undertaken in the Squamish Estuary.

Successful plans integrate restoration and conservation goals into land-use and development decisions. For example, habitat classification systems such as those developed as part of the Fraser River Estuary Management Plan (FREMP) and the the K'ómoks River Estuary Management Plan have in some cases informed project reviews and approvals, although there is no legal requirement to follow or even consider the plan's colour-coded recommended

uses. If the political will exists, conservation objectives developed during the planning process can be incorporated in land-use regulation; for example, the District of Squamish incorporated the Squamish Estuary Management Plan into its official community plan.[1151]

Estuary planning can also provide an opportunity to develop a larger, landscape-scale restoration strategy, as was the case with the Squamish Estuary Management Plan. The relatively fragmented approach to restoration undertaken in the Lower Fraser appears to have been much less successful. Unlike in the Fraser River Estuary Management Plan, a restoration strategy was built right into the Squamish Estuary Management Plan.

Estuary management planning can focus planning at a meaningful scale that can build relationships and improve coordination between governments, particularly between Crown and Indigenous governments. It can help build a common vision, instead of leaving governments to negotiate project by project. For example, the Province of British Columbia and the Snuneymuxw First Nation concluded two memoranda of agreement alongside the estuary management planning process, which provided for the continuation of the process and discontinuation of litigation commenced by the Snuneymuxw First Nation. The governments also formed the Nanaimo Estuary Working Group as part of a reconciliation agreement, which considered benefit agreements for log booming and explored reducing the impact of log boom storage.[1152]

Estuary management planning can also be carried out in an inclusive and transparent way, which can increase public engagement and support for the plans, especially if community members see positive outcomes related to their engagement. Inclusive decision-making enables governments to incorporate a variety of perspectives for coastal management.

A plan can provide transparency and certainty for all parties, and establish benchmarks for future planning and decision-making.

Weaknesses of Estuary Management Plans

Existing plans have not prevented deterioration of estuaries to date. The need for estuary protection in British Columbia remains high, and additional legislative and policy direction is required from all involved governments: "With uneven estuarine protection along the coast and management plans for less than 2 percent of mapped estuaries, it is apparent that local efforts alone will not be sufficient to conserve estuarine habitats effectively into the future."[1153]

Although estuary plans have many potential benefits, much depends on how they are developed and implemented. One weakness is that this tool is

not used widely enough: only a small number of estuary plans have been completed, and not all of British Columbia's Class 1 estuaries are covered by a plan.[1154] This is likely because some of the most threatened areas are closest to human settlements, and therefore more complicated and costly to protect.[1155] Further, reviews of the plans that do exist are often sporadic, and the plans are rarely updated.

Another weakness is timing. The province took a lead role in estuary planning in an era of greater provincial investment into land-use planning in general. Some plans took up to twenty years to finalize, and a number were never fully implemented. In other cases, the original plans have become outdated and the bodies that supported ongoing coordination and monitoring have ceased to exist. Indigenous nations have undertaken estuary planning initiatives more recently.

In recent years, estuary management has received little support from either federal or provincial governments. Reduced government involvement and funding for estuary management puts these valuable ecosystems at greater risk, and highlights the need for an overall provincial coastal strategy and law. For example, federal funding for FREMP and the Burrard Inlet Action Plan was reduced over time and then ceased entirely with the dissolution of the secretariat bodies in 2013. The Courtenay River Estuary Management Plan was never fully implemented, but has reportedly been updated with K'ómoks First Nation leadership and community support, and may be re-released in the future as the K'ómoks Estuary Management Plan.[1156]

Perhaps the greatest weakness of estuary management plans is that the environmental designations within them are rarely implemented in law. For example, one outcome of the Campbell River Estuary Management Plan was meant to be the creation of a Wildlife Management Area for part of the estuary, but over a decade after the start of the process, there is still no WMA designation. Similarly, the management objectives put forth in the plans are usually not translated into regulatory objectives for decision-makers.

The absence of a legal framework is a disadvantage in many ways. First, it means that plans require ongoing government buy-in for full implementation, including dedicated resources.[1157] In many cases, after the initial planning and consultation were completed, the level of influence and activities have waxed and waned based on political interest and funding. This fluctuation in interest often occurs at the federal and provincial levels. It affects local and Indigenous governments, who may be invested in maintaining the environmental quality of the estuary yet lack the required authority and

resources for full plan implementation. For example, in the Squamish Estuary, federal and provincial partners eventually stepped away from their involvement in the SEMP. Subsequently the District of Squamish developed its own Marine Action Strategy to guide local marine and waterfront decision-making.

Second, the lack of a legal framework also means that there is no consequence for non-compliance: plans can be ignored. As a result, plans also require full and ongoing stakeholder commitment to be successful.

Third, plans for degraded estuaries need to include overarching restoration strategies and funding to support ecosystem recovery. The Fraser River Estuary Management Plan illustrates the drawbacks of a fragmented approach that leaves restoration activities up to project proponents, resulting in a range of uncoordinated restoration activities. Project proponents are also not invested in the long-term success of projects.

Estuaries in British Columbia are located in the traditional territory of First Nations, a fact that needs greater prominence in estuary management plans, including recognition of Indigenous jurisdiction and explicit accounting for Indigenous governance.

Finally, as noted above, funding is a perennial issue, particularly as political interest fluctuates. It is possible that large environmental organizations like the Nature Conservancy of Canada can assist with funding. Industries that contributed to estuary degradation may also be persuaded to donate land, time, and money to develop a plan.

MULTIPLE DESIGNATIONS: CO-DESIGNATION AND LAYERING OF PROTECTION TOOLS FROM MULTIPLE JURISDICTIONS

Marine protected areas may involve more than one legal designation, an approach that is sometimes referred to as "layering." For example, an Indigenous Protected Area (IPA) may also be designated as a federal MPA or national park, and a provincial protected area may overlap with a local government zoning designation.

Application of multiple designations to one protected area occurs in many areas globally. An assessment revealed the following:

- Eighteen countries had over 90 percent of their MPA networks covered by more than one designation.

- Protection of a site through a national designation in conjunction with an international designation is the most recurrent type of overlap, followed by the protection of a site through two national designations.
- Marine areas closer to the shoreline tend to be protected by a higher number of designations than more remote marine areas.[1158]

Other research conducted in the European Union shows that multiple designations may lead to more effective management, indicated by the presence of a management plan and improvements in environmental monitoring indicators.[1159] Whether this is because more resources are available for sites with multiple designations, leading to better management, or because better-managed sites are more likely to attract multiple designations is a question for further research.[1160]

Co-/Multiple/Layered/Tiered Designations

These terms all refer to the use of more than one legislative or non-legislative tool to designate and manage activities within a protected area.

Co-designation of MPAs occurs when governments use their statutory powers to designate an area, respecting each other's jurisdiction. Co-designation may be particularly useful in the context of British Columbia, where the provincial government assumes jurisdiction of the seabed in some areas and/or adjacent coastline, the federal government regulates activities in the water column and on the surface, and First Nations have title and protocols – all over the same area.

Co-designation occurred in the Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site, and in the SG̲aan K̲inghlas–Bowie Seamount Marine Protected Area (see "Examples in British Columbia" below). Co-designation may be recorded in an agreement, as with the MOU between the Government of Canada and the Council of the Haida Nation for the SG̲aan K̲inghlas–Bowie Seamount Marine Protected Area.[1161] A crucial part of these agreements is that they are based upon mutual, reciprocal, and overlapping designations by each of the parties.

Layered, multiple, or tiered designation involves the use of multiple legislative or non-legislative tools within an area to create more comprehensive management of the area and all the activities and uses that occur within it. This approach is quite common in British Columbia.

Tiered designations may arise where multiple-use areas are managed through zoning. For example, the Great Barrier Reef area in Australia is

CASE STUDY 22 Saguenay-St. Lawrence Marine Park

An interesting example of co-designation of a marine protected area in Canada outside of British Columbia is the Saguenay-St. Lawrence Marine Park, which is jointly managed by Parks Canada and Parcs Québec. The provincial and federal governments signed an agreement in 1990 to produce mirror legislation, leaving the seabed within the proposed protected area under the jurisdiction of the provincial government, and the water column and activities within it under the jurisdiction of the federal government, and facilitating coordination between these two levels of government. The agreement led to the co-designation of the Saguenay-St. Lawrence Marine Park under the federal *Saguenay-St. Lawrence Marine Park Act* and the provincial *Loi sur le Parc marin du Saguenay-St-Laurent* in 1997, legally designating the area as a marine park.[1162]

The zoning plan for the marine park notes that it is up to respective departments to apply their respective laws, regulations, and management measures in support of the zoning plan.[1163] The marine park's co-directors exercise the powers and functions that the acts delegate to them.

The park is important habitat for marine mammals, such as the endangered St. Lawrence beluga. The creation of separate legislation for the marine park has enabled the development of unique regulations to protect marine mammals. For example, federal regulations enable management of vessel traffic through prohibition of personal watercraft, attachment of conditions to permits such as training programs for vessel operators, and establishment of temporary exclusion zones.[1164]

covered by a stand-alone law that includes certain standards for the entire area and provides additional tiers of protection through multiple zones ranging from preservation to general use. It is not a single marine protected area managed by a single agency, but rather a "complex amalgam of agencies, management tools and various approaches to management, all working together."[1165]

The addition of international designations adds another layer of protection. For example, designation of the Great Barrier Reef as a World Heritage Site under the *World Heritage Convention*[1166] meant that the treaty's

provisions on "World Heritage Sites in Danger" could be invoked. Due to concerns about the reef's health and management, the World Heritage Committee investigated, conducted site visits, and eventually requested a coordinated and comprehensive long-term plan for the reef, which the Australian government prepared.[1167]

Examples in British Columbia

Layering protection is relatively common in BC MPAs, and is a proven model on the Pacific coast.

- Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site is an example of Indigenous-led conservation that was complemented by layered protection from multiple orders of government and government agencies. The site was first designated as a Haida Heritage Site by the Haida Nation. After a long process of negotiation and extensive public consultations, the federal government designated the area as a National Marine Conservation Area Reserve. The site is also protected by Rockfish Conservation Area designations under the federal *Fisheries Act* (which are in the process of being removed due to the completion of the National Marine Conservation Area management plan), by federal designation as critical habitat for species at risk, and by provincial conservancies under the BC *Parks Act;* it also has a World Heritage Site within its boundaries. A full case study of Gwaii Haanas is provided in Case Study 16 in Chapter 5.
- SG̲aan K̲inghlas–Bowie Seamount Marine Protected Area is another example of Indigenous-led conservation by the Haida Nation that was complemented by federal designation as an *Oceans Act* MPA. A full case study is provided in Case Study 2 in Chapter 3.
- In Howe Sound, both Whytecliff Park (designated by the District of West Vancouver) and Porteau Cove (BC Parks) have annual renewable fishing closures implemented federally.[1168] In Porteau Cove, there is also a restriction on the operation of commercial vessels and pleasure crafts, implemented federally.[1169]
- Victoria Harbour Migratory Bird Sanctuary, the oldest such sanctuary in the province, was designated in 1923 and is another example of layered designations. Parts of the federally designated sanctuary are also designated as three provincial ecological reserves and as Rockfish Conservation Areas. One of these ecological reserves, Trial Islands, was established in 1990 and protects the greatest number of endangered and vulnerable

species in a single ecological reserve in British Columbia.[1170] Victoria Harbour is almost entirely marine, while all tenures in the harbour, such as float plane terminals and marinas, are provincial.

- Conservation sites in the Northern Shelf Bioregion are subject to numerous agreements, such as the set of agreements related to MaPP and PNCIMA, as well as the more recent *Reconciliation Framework Agreement for Fisheries Resources* and *Reconciliation Framework Agreement for Bioregional Oceans Management and Protection.*[1171] These agreements may provide additional tiers of protection, or additional governance requirements.

Strengths of Multiple Designations

If each designation confers additional protection, the multiple designations may be beneficial, particularly in a confederation like Canada, where each order of government holds different regulatory powers. Multiple values of an area can in theory be better protected by complementary mechanisms. For example, an international Ramsar site designation focuses on maintaining the values of the wetland, while a provincial Wildlife Management Area focuses on protecting significant wildlife.

The benefits of a complementary approach to protected area designation include increased public understanding; improved management of species that cross over ecosystem boundaries, which differ from jurisdictional boundaries; and enhanced compliance.[1172]

Bolstering a national-level protected area with an international designation can confer additional status as it confirms the global value of the area. Multiple designations can also raise the visibility and prestige of these areas, which could be a factor leading to increased tourism.[1173]

Layering multiple designations can be an effective way to coordinate multiple levels of government to achieve optimal governance of protected areas. Each jurisdiction bringing its tools to the table can result in more comprehensive protection and overall governance. It can also reduce the time and political risk of designation, because comprehensive protection can be achieved without the need to amend existing laws.

Layering with Indigenous designations can ensure that each party maintains its jurisdiction. Federal, provincial, and international designations can complement Indigenous-led designations such as Indigenous Protected Areas. This approach provides sufficient flexibility for Indigenous nations to engage in their own internal governance processes, to choose priority areas, and to set out how these areas will be governed.

Finally, multiple designations may help fundraising efforts for site management at the national level and contribute to securing financial resources from international donors. International designations are important as sites for research and education and public awareness, and can be useful for transboundary collaboration, twinning of sites, global knowledge sharing, and partnership programs.[1174]

Weaknesses of Multiple Designations

Multiple designations can have significant downsides because of the complexity of working across several orders of government and government agencies. Layered designations may take longer to put in place because multiple governments are involved, each using its own legal tools.

When not well implemented, multiple designations can give rise to inconsistency and confusion, and result in officially induced error. Inconsistencies can arise from the varying time frames of different designations. For example, fishery closures are temporary whereas marine protected areas are meant to be permanent. If not implemented in Canadian law, international designations may not affect decision-making on the ground.

Challenges may also arise when trying to negotiate between different reporting requirements and politics between different orders of government. Site managers may not be trained to prepare the documentation needed for multiple international designations, and may not understand the need for relationships with global secretariats. Conversely, international bureaucrats may not be attuned to local site politics.[1175] Multiple, layered, or tiered protection designations may entail a greater need for resources to coordinate decision-making, and for enforcement of different statutory requirements.

Multiple designations can also be less effective. A multiplicity of designations can risk inflating the status of the area without adding to the level of on-the-water protection.[1176]

Finally, multiple designations may create challenges for co-governance between various orders of government, particularly when interjurisdictional arrangements are based in agreements rather than legislation. Agreements are legally binding between the parties but are less transparent and have fewer mechanisms for public participation, unlike legislated protected area designations. In the case of conflict or disputes, it is unclear how courts will enforce these agreements. This can pose particular problems for Indigenous-led designations such as Indigenous Protected and Conserved Areas (IPCAs). Without legislative support for IPCAs, there is no requirement for Crown governments to meaningfully recognize or complement

IPCAs with their own legislative tools. This creates uncertainties for Indigenous nations that establish IPCAs.

Factors to Consider When Applying Multiple Designations

The following factors should be considered when applying multiple designations:

- *Protection of the full range of marine biodiversity.* Examining how well protective designations cover all threats and ecosystem elements may identify gaps in coverage. Provincially designated MPAs have no effect on commercial fisheries, so a federally imposed fisheries closure will be needed as an additional layer of protection if the MPA includes fisheries conservation objectives. Similarly, an IPA may declare fisheries closures, but if these are not honoured by commercial fishers, a federal fisheries closure may be needed.
- *Time scales.* A related point to consider is the different time frames that may apply to various protection measures. Fisheries closures are renewed annually, while "marine refuges" under the *Fisheries Act* are meant to provide longer-term protection (at least twenty-five years). This means a marine refuge may be a more appropriate tool to layer onto protected areas, such as IPAs or provincial ecological reserves, that require stronger and longer-term protection for fish species.
- *Resources to manage, govern, and enforce.* Multiple, layered, or tiered protection designations will require greater resources to coordinate decision-making and enforcement of different statutory requirements. The availability of enforcement officers qualified to enforce all the layers of protection is another factor to consider.

CONCLUSION

THE NEED TO CARE FOR the ocean has never been clearer. The health of the ocean, an essential life support for the planet, is at a turning point. The compounding effects of fishing, climate change, pollution, and other human activities have touched even the furthest reaches of the vast ocean, threatening human and non-human life alike.[1177] In British Columbia, Crown laws have so far fallen short in both their expression and implementation, and have not prevented ocean deterioration.

Law can be a powerful force for healthy coasts and ocean, however, and many of the laws we need in order to rebuild and restore the ocean do exist. Marine protected areas (MPAs), the subject of this book, are "a necessary and powerful recovery wedge across multiple components of the ocean ecosystem, spanning from coastal habitats to fish and megafauna."[1178] In the last few decades, there has been an upsurge in marine spatial protection and planning initiatives in British Columbia, and this volume records the many laws available that, if fully applied, could slow and even stop the decline of marine wildlife and habitat on the BC coast.

But to truly end decline and restore the BC coast to its former abundance, more will be needed. In writing this book, we identified several gaps in ocean law that need to be filled. The first is a gap in the legal implementation of tools that already exist. Without legal teeth, even the best-designed plans and protections can result in confusion, delays, and inaction. Legal

backing is essential for the long-term effectiveness of all protection measures, including coastal or estuary plans, noise reduction programs for Southern Resident killer whales, the implementation of marine spatial plans, and the designation of MPA networks.

Support for Indigenous laws and governance, including in Crown law, is a gap that must be addressed. The history of protected areas in Canada is unfortunately full of examples of a lack of recognition of the rights of Indigenous peoples, who have cared for the coast for millennia. Indigenous-led conservation and shared governance are essential for just, equitable, and ethical conservation efforts, and are also critical for ecological stewardship. As Kyle Artelle and colleagues write:

> Resurgent Indigenous governance of lands and seas provides more nuanced approaches that recognize that the well-being of humans is linked to the well-being of environments (and biodiversity) ... Supporting the resurgence of governance systems that acknowledge the deeper, reciprocal connections between well-being of people and biodiversity might provide education opportunities for non-Indigenous conservations to better understand the fuller scope of potential ways of interacting with place.[1179]

Improved coordination between governments is essential. As we have noted throughout this book, jurisdiction in marine spaces is complex and interlocking, and effective protection requires all orders of government to be engaged. One hopeful example is the development of Canada's first MPA network in the Great Bear Sea. The government-to-government co-leadership of the MPA network and large-scale marine spatial plans demonstrates a sea change in co-governance. Legalizing the MPA network and all its sites is the final essential step, and will ensure that the results of these initiatives are exceptional and long-lasting.

Equally essential is dramatic action to mitigate climate change. The *Special Report on the Ocean and the Cryosphere in a Changing Climate* from the Intergovernmental Panel on Climate Change found that sea-level rise is occurring at an "unprecedented" rate, that worst-case projections are higher than previously thought, and that a two-metre sea-level rise by 2100 "cannot be ruled out."[1180] As a 2020 study on rebuilding marine life has noted: "Efforts to rebuild marine life need to consider unavoidable impacts brought about by ocean warming, acidification and sea-level rise already committed by past emissions, even if the climate mitigation wedge, represented by the Paris Agreement, is fully implemented."[1181] The failure of nations to tackle

climate change on the scale required to date mars their otherwise cautiously optimistic outlook for marine recovery.

These gaps can be addressed. Through the law's power to communicate what is acceptable and what we value, we can change actions, behaviours, and our collective future. A BC coastal protection law act could set provincial standards for foreshore and marine riparian protection, require implementation of marine spatial plans, enforce marine zones, and require decision-makers to comply with the plans. An amended *Oceans Act* could lead to stronger implementation of marine spatial planning, real protection standards, and even legislated biodiversity targets and deadlines.[1182] A change in policy direction could lead to greater use of the *Species at Risk Act* for marine species. New federal and provincial protected area co-governance laws could recognize Indigenous protected areas and Indigenous legal orders.

There are many signs of hope for the ocean: strengthening of laws, growing recognition of Indigenous laws and support for Indigenous-led conservation, greater public awareness and action, success stories of marine species recovery, and a renewed emphasis on ecosystem recovery and rehabilitation. Crown laws are beginning to recognize the deep bond between people and nature, and are recognizing Indigenous laws and Indigenous leadership in conservation. For example, a key legal principle in Haida law is "Gina 'waadluxan gud ad kwaagiida," "everything is connected." This principle is now incorporated in several Haida Nation and Crown legal documents: the Haida Gwaii Marine Plan, the Gwaii Haanas Gina 'Waadluxan KilGuhlGa (Talking about Everything) Land-Sea-People Plan, and the SGaan Kinghlas–Bowie Seamount Marine Protected Area Management Plan.[1183]

There has been an upsurge in spatial protection initiatives in British Columbia, such as more MPAs, the creation of an MPA network, and comprehensive marine spatial plans that cover a large portion of the province. Not only has the number of these protected areas increased, but so has the quality of protection, with the introduction of protection standards and an overdue focus on equitable governance. The federal government continues to commit to needed marine conservation targets, including protection of 30 percent of the ocean by 2030.[1184]

The progress made in these areas over the last several decades has laid the foundation for recovery, and scientists are hopeful. If the major pressures, including climate change, are reduced, substantial rebuilding of marine life is achievable by 2050.[1185] This book has charted some of the steps forward.

APPENDIX

Jurisdiction over Specific Marine Areas and Activities

FORESHORE

The foreshore is the land between the high- and low-water marks of the ocean and is an area of special jurisdictional complexity. In British Columbia, the foreshore is usually provincial Crown land, regulated under the *Land Act,* except in the case of federal or reserve lands.[1186] The *Land Act* states that land below the natural boundary (the high-water mark)[1187] cannot be disposed of by the province except by order of the Lieutenant Governor in Council or the Minister.[1188] Provincial practice has been to establish a policy for each different activity and use in the foreshore (e.g., dock building or shellfish operations), and to grant or not grant licences for these uses. These policies do not refer to broad coastal objectives or require the assessment of the cumulative impacts of those decisions. This has historically resulted in ad hoc administration of foreshore lands, without substantive direction for their conservation and rehabilitation from past activities.

Local governments have the power to regulate the use of the foreshore, and the surface of the water out to the limit of municipal boundaries, through zoning. This local regulation does not apply to the provincial or federal Crown, but to all other prospective users where the foreshore is provincial Crown land. Waterfront property owners, including local governments, cannot carry out any activities in the adjacent foreshore Crown

lands, apart from transient recreation, or alter them in any way without provincial authorization.[1189]

Exceptionally, a local government may enter into what is known as a "head lease" with the province for the provincially owned foreshore; this transfers much of the management of a foreshore area from the province to a local government,[1190] and enables the local government to sublease portions to marinas and other occupants. An example is the head lease held by the District of West Vancouver.[1191]

In most cases, the foreshore will also be fish habitat, and federal authorization under the *Fisheries Act* will be required. Indigenous nations have jurisdiction over foreshore lands within their territories. In some cases, foreshore lands may also have archaeological and cultural significance for First Nations, and may require an alteration permit under the provincial *Heritage Conservation Act.*

FISHING

Parliament has the exclusive right of legislating with respect to fisheries in tidal waters.[1192] The provincial government does have some jurisdiction over the herring spawn on kelp fishery, which requires a provincial wild aquatic plant harvesting licence (in addition to a federal fisheries licence).[1193] Provincial approvals are required to carry out these activities. While these broad guidelines are intended to assist in the development of spatial protection measures, fisheries management and control is a complex issue and a full discussion is beyond the scope of this book.

Indigenous jurisdiction includes the management of fisheries within Indigenous territories, and activities that impact them. Aboriginal rights to fish, including for commercial purposes, are also recognized under section 35 of the *Constitution Act, 1982.*[1194]

FINFISH AND SHELLFISH AQUACULTURE

Marine finfish and shellfish aquaculture are an area of overlapping jurisdiction. In British Columbia, these operations require a provincial Crown land tenure under the *Land Act* authorizing the use of the site and providing the proponent with some security of tenure, a navigable waters approval under the *Canadian Navigable Waters Act,* and an aquaculture licence under the federal *Pacific Aquaculture Regulations*.[1195] Shellfish aquaculture operations must also be consistent with local government zoning regulations.

Indigenous rights must be upheld in the issuance of aquaculture licences, and the duties of the Crown towards Indigenous nations continue to evolve in this regard.[1196] Some Indigenous nations have issued moratoria on aquaculture in their traditional territories, and the Dzawada'enuxw First Nation has filed an Aboriginal title claim to areas within its territory where salmon farms are located in an effort to stop these operations.[1197]

SHIPPING

The federal government has practically exclusive authority over shipping and navigation under section 91(10) of the *Constitution Act, 1867.* Canadian courts have held that the federal government has the exclusive right to legislate with respect to navigation in all navigable waters, including interior waters, "no matter who owns the land underneath."[1198] Such a right is, of course, subject to Aboriginal and treaty rights.

However, Canadian courts have found that the *Constitution Act, 1867* "does not confer absolute authority on the federal government to regulate shipping."[1199] As noted above, provincial laws do apply to some aspects of shipping, such as shipping that is strictly within the province.[1200] Provincial legislative schemes that are incidental to navigation may also apply; for example, shipping companies with a centre of business in British Columbia are subject to the occupational health and safety laws of the province.[1201]

Indigenous nations have inherent jurisdiction to address shipping and the associated impacts within their territories, including marine spills. For example, the Haida Nation has called for a ban on shipping within SG̲aan K̲inghlas–Bowie Seamount Marine Protected Area; the Heiltsuk Nation has proposed creating an Indigenous Marine Response Centre to address spills on the North Coast; and the Tsleil-Waututh Nation has issued an environmental assessment of the Trans Mountain Expansion Project, including increased tanker traffic within its territory.[1202]

MINERAL AND HYDROCARBON RESOURCES

Jurisdiction over resource extraction in British Columbia's marine waters is shared. As noted above, the province has Crown title to the lands and waters between the mainland and Vancouver Island, and any undersea hydrocarbons and minerals in this area as well. The federal government has jurisdiction over the seabed and subsoil of the territorial sea and the exclusive economic zone, which means it has authority over offshore oil and gas

regulation and any undersea mining.[1203] Since 1972, however, there has been a federal moratorium on offshore oil and gas on the Pacific coast, which was matched by a provincial moratorium declared by the BC government in 1989.

Both federal and provincial regulators approve projects and issue permits and authorizations for mining and oil and gas projects in the province, including liquefied natural gas facilities, one of British Columbia's economic development priorities.[1204] Similarly, both federal and provincial governments have jurisdiction over marine renewable energy.[1205] Both levels of government have laws requiring environmental assessments for projects, pursuant to their jurisdictional powers.[1206] Any rights held by the federal and provincial governments are subject to Aboriginal and treaty rights.

Notes

Introduction

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12 See, *e.g.,* a story recounted by Mr. Gabriel George of the Tsleil-Waututh Nation about his great-great-grandfather Waut-salk. *Trans Mountain Pipeline ULC: Application for the Trans Mountain Pipeline Expansion Project,* Transcript vol 6 (October 16, 2014), NEB Hearing Order OH-001-2014 (Oral Presentation, Gabriel George, lines 2748–88).

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34 For further discussion, see Chapter 5, "Indigenous Law."
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Chapter 1: Jurisdiction

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74 *Ibid* at paras 73, 115–16. The Supreme Court of Canada held that the *Forest Act,* RSBC 1995, c 157, which is defined to apply only to Crown land, ceases to apply to Aboriginal title land once that title is recognized by an agreement or court order and the land vests in the Indigenous nation. The implication of this decision on the *Park Act,* RSBC 1996, c 344, Crown legislation that also applies to Crown land, is currently the subject of litigation: *Nuchatlaht v British Columbia,* 2018 BCSC 796.

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106 *Ibid,* s 92(16).

107 *Ibid,* s 92A.

108 Fisheries and Oceans Canada, *Role of the Provincial and Territorial Governments in the Oceans Sector,* Catalogue No Fs23-319/1-2008E-PDF (Ottawa: Department of Fisheries and Oceans Canada, 2009), online: <https://publications.gc.ca/site/eng/421641/publication.html>.

109 *Constitution Act, 1867, supra* note 97, s 92(10); *Island Tug and Barge Ltd v Communication, Energy and Paperworkers Union, Local 601,* 2003 BCCA 247 [*Island Tug*]; *Tessier Ltée v Quebec (Commission de la santé et de la sécurité du travail),* 2012 SCC 23 [*Tessier*]: The Constitution "does not confer absolute authority on the federal government to regulate shipping. Section 91(10) must be read in light of s 92(10), the essential scheme of which is to divide legislative authority over transportation and communication works and undertakings based on the territorial scope of their activities" (at para 24).

110 *Early Recovered Resources Inc v British Columbia,* 2005 FC 995 (the Federal Court investigated the constitutional validity of provincial legislation governing the salvage of logs found in navigable waters; it found that provincial legislation applies in navigable waters if it is part of valid provincial legislative scheme and only incidentally affects navigation and shipping). See also *Morrison v Halifax Regional Municipality,* 2008 NSSC 375, which discusses a dispute where a homeowner built a boathouse and floating dock in violation of municipal land-use bylaws. The homeowner challenged the constitutional validity of the bylaw. The Nova Scotia Supreme Court found that the bylaw did not have even an incidental effect on the federal navigation and shipping power, and was within the provincial powers under ss 92(13) and (16) of the Constitution.

111 Chircop et al, *supra* note 93 at 161–62. The boundaries of provinces are determined by the instruments that created them, and if the instruments are unclear, courts will review "the terms of union with Canada (where applicable)," "any modifications of the boundaries after confederation under s 3 of the *Constitution Act, 1871,*" and "judicial decisions on boundaries." Fisheries and Oceans Canada, *supra* note 108; *Oceans Act, supra* note 61, ss 4, 5; these factors are listed in Peter Hogg, *Constitutional Law of Canada,* 5th ed (Toronto: Carswell, 2007) at 15.

112 Inland waters include the area between headlands (historically referred to as *inter fauces terrae,* "within the jaws of the land").

113 *Reference re Offshore Mineral Rights (British Columbia),* [1967] SCR 792 [*Offshore Mineral Rights*]; *Reference re: Ownership of the Bed of the Strait of Georgia and Related Areas,* [1984] 1 SCR 388, 1984 CarswellBC 152 [*Strait of Georgia*] (this case was brought as a reference question by the province of British Columbia. The Supreme Court of Canada confirmed that British Columbia could exercise jurisdiction over offshore oil and gas exploitation in the undersea lands in question). See

also A.L.C. de Mestral, "Reference re Ownership of the Bed of the Strait of Georgia and Related Areas and Reference re Newfoundland Continental Shelf" (1985) 30:2 McGill LJ 293.

114 *Strait of Georgia, supra* note 113 at 2: "An Act providing for the union of the colonies of Vancouver Island and British Columbia was subsequently passed in 1886 which defined the western boundary of the united colony as the Pacific Ocean, which could only refer to the open sea off the west coast of Vancouver Island and not to the straits which, historically, have never been referred to as the Pacific Ocean. As such, all the lands and waters north of the mid-line of the channel were included within the statutory borders of British Columbia".

115 Ted L. McDorman, "Canadian Offshore Oil and Gas: Jurisdiction and Management Issues in the 1980s and Beyond" in Donald McRae & Gordon Munro, eds, *Canadian Oceans Policy: National Strategies and the New Law of the Sea* (Vancouver: UBC Press, 1989) 39 at 55.

116 *Oceans Act, supra* note 61, s 9(1)(c). Currently only one such regulation has been enacted, extending the laws of Prince Edward Island to the Confederation Bridge Area. *Confederation Bridge Area Provincial (P.E.I.) Laws Application Regulations,* SOR/97-375. It appears that some laws may also apply independent of regulation under the *Oceans Act*. For example, the Supreme Court of Canada has held that provincial occupational health and safety laws apply on ships operating outside of provincial territory but with a business centre in the province. See *Tessier, supra* note 109 at para 24.

117 *Oceans Act, supra* note 61, s 9(5).

118 *British Columbia (Attorney General) v Lafarge Canada Inc,* 2007 SCC 23 at para 55; BC Ministry of Environment, Lands and Parks, "A Legislative Review Pertaining to Defining the Coastal Waters of British Columbia" (June 29, 1994) at 3–4.

119 This delegation is usually considered to be based on the powers assigned to the province under the *Constitution Act, 1867, supra* note 97. See, *e.g.,* "Municipal Institutions in the Province" (s 92(8)); "Property and Civil Rights in the Province" (s 92(13)); and "Generally all Matters of a merely local or private Nature in the Province" (s 92(16)).

120 For regional districts, most of this authority is found in the *Local Government Act,* RSBC 2015, c 1. For municipalities, the *Community Charter* is also relevant. See *Community Charter,* SBC 2003, c 26. For Islands Trust authority, see the *Islands Trust Act,* RSBC 1996, c 239.

121 For more information on letters patent, see "Letters Patent," online: Government of British Columbia <www2.gov.bc.ca/gov/content/governments/local-governments/facts-framework/legislative-framework/letters-patent>.

122 See Chapter 6 for examples.

123 "Land" includes the surface of the water; see *Community Charter, supra* note 120, Schedule, s 1. Except in the city of Vancouver (see *Vancouver Charter,* SBC 1953, c 55, s 565(1)(b)), "land" for zoning purposes does not include "land covered by water."

124 *Canadian Occidental Petroleum Ltd v District of North Vancouver,* [1985] BCJ No 588 (BCCA).

125 *Interpretation Act,* RSBC 1996, c 238, s 14(2).

126 *Squamish (District) v Great Pacific Pumice Inc,* 2000 BCCA 328.

127 *Salt Spring Island Local Trust Committee v BandB Ganges Marina Ltd,* 2008 BCCA 544 (the BC Court of Appeal found that a municipal land-use bylaw may apply to a registered vessel if it is *not in fact* a "ship," "boat," or "vessel" at the material time, *i.e.,*

if it is secured to land); *Durham (Regional Municipality) v Todd,* 2011 ONCJ 449 [*Todd* (2011)], aff'g 2010 ONCJ 122 [*Todd* (2010)] (municipal bylaws may impose reasonable limits on harbour usage); *Ramara (Township) v Guettler,* (2007) 33 MPLR (4th) 257 (Ontario Superior Court of Justice) (a municipality could regulate activity in navigable waters, in this case a canal, because it owned the canal bed; the federal authority over navigation did not affect this right); see also *West Kelowna (District) v Newcomb,* 2015 BCCA 5.

128 *Todd* (2011), *supra* note 127, ss 5, 8.

129 *R v Crown Zellerbach Canada Ltd,* [1988] 1 SCR 401. The Supreme Court of Canada found that the federal government's legislative "peace, order and good government power" grants it the authority to pass laws concerning marine pollution. Provincial authority to regulate pollution stems from its power over provincial lands and property and civil rights, under ss 92(5) and (13), respectively, of the *Constitution Act, 1867, supra* note 97.

130 *Reference re Environmental Management Act,* 2019 BCCA 181, 2019 CarswellBC 1429 at para 105; *NIL/TU, O Child and Family Services Society v BCGEU,* 2010 SCC 45, 2010 CarswellBC 2937 at para 42; *Reference re Pan-Canadian Securities Regulation,* 2018 SCC 48, 2018 CSC 48 at paras 17–18.

131 *Ibid.*

132 Canada, *Principles, supra* note 85 at 9; BC, *Draft Principles, supra* note 85 at 3.

133 MPA Network BC Northern Shelf <mpanetwork.ca/>. See generally Chapter 7 for more discussion of interjurisdictional marine planning and protection efforts.

134 *Canadian Western Bank v Alberta,* 2007 SCC 22 at para 75.

135 *Multiple Access Ltd v McCutcheon,* [1982] 2 SCR 161 at 190–91.

136 Anna Watson, "Alejandro Frid Examines Human Impact on Earth in New Book Changing Tides," *National Observer* (April 24, 2020), online: <www.nationalobserver.com/2020/04/24/reviews/alejandro-frid-examines-human-impact-earth-new-book-changing-tides>; Mimi Lam, "Opinion: Herring Fishery Needs Integrated Management Plan," *Vancouver Sun* (November 8, 2015) online: <vancouversun.com/opinion/op-ed/opinion-herring-fishery-needs-integrated-management-plan>; "Heiltsuk Protest Shuts Out Commercial Herring Fishermen," *CBC News* (April 2, 2015), online: <www.cbc.ca/news/canada/british-columbia/heiltsuk-protest-shuts-out-commercial-herring-fishermen-1.3019583>; Andrew Hudson, "Oversoaked Crab Traps Shows Need for Shared Authority: Kitasoo Guardians," *Haida Gwaii Observer* (November 15, 2018), online: <www.haidagwaiiobserver.com/news/oversoaked-crab-traps-shows-need-for-shared-authority-kitasoo-guardians/>.

137 Central Coast Indigenous Resource Alliance, "Crab Pilot Project a Positive Step towards Collaborative Fisheries Management," *The Common Voice: CCIRA Newsletter* (April 2019) at 2–6, online: <ccira.ca/wp-content/uploads/2019/04/CCIRA-newsletter-10-v01.60-web.pdf>; Linda Nowlan, Georgia Lloyd-Smith, & Alexander Kirby, "Enforcing the Fisheries Act – Perspectives from the Pacific Coast" (Paper delivered at the Symposium on Environment in the Courtroom: Protection of the Marine Environment at the Canadian Institute of Resource Law, October 13–14, 2016) [unpublished].

Chapter 2: International Law

138 The sources of international law are enumerated in *Statute of the International Court of Justice,* UNTS 993 (April 18, 1946), art 38(1).

139 "Areas Beyond National Jurisdiction," online: Global Environment Facility, <www.thegef.org/topics/areas-beyond-national-jurisdiction>.

140 Treaties may be known by other names, such as conventions, agreements, accords, protocols, covenants, pacts, or charters, but the different names have no legal significance.

141 Laura Barnett, *Canada's Approach to the Treaty-Making Process* (Ottawa: Library of Parliament, 2021), online: Parliament of Canada <lop.parl.ca/sites/PublicWebsite/default/en_CA/ResearchPublications/200845E>.

142 World Commission on Protected Areas Task Force on OECMs, *Guidelines for Recognising and Reporting Other Effective Area-Based Conservation Measures* (Gland, Switzerland: IUCN, 2019), online: IUCN <portals.iucn.org/library/sites/library/files/documents/PATRS-003-En.pdf>; Nigel Dudley, ed, *Guidelines for Applying Protected Area Management Categories* (Gland, Switzerland: IUCN, 2008), online: IUCN <portals.iucn.org/library/sites/library/files/documents/PAG-021.pdf>; World Commission on Protected Areas, *Applying IUCN's Global Conservation Standards to Marine Protected Areas (MPA): Delivering Effective Conservation Action through MPAs, to Secure Ocean Health and Sustainable Development* (Gland, Switzerland: IUCN, 2018), online: IUCN <www.iucn.org/sites/dev/files/content/documents/applying_mpa_global_standards_v120218_nk_v2.pdf>.

143 Sustainable Development Goal number 14, "Life below Water," says that states shall "conserve and sustainably use the oceans, seas and marine resources for sustainable development"; David L. VanderZwaag et al, "Canada's International and National Commitments to Sustain Marine Biodiversity" (2012) 20 Environmental Review 312. This manuscript is part of an edited version of a 2012 Royal Society of Canada Expert Panel Report. See Isabelle M. Côté et al, *Sustaining Canada's Marine Biodiversity: Responding to the Challenges Posed by Climate Change, Fisheries, and Aquaculture* (Ottawa: Royal Society of Canada, February 2012), online: Royal Society of Canada Expert Panel <rsc-src.ca/sites/default/files/RSCMarineBiodiversity2012_ENFINAL.pdf>.

144 Eric LeGresley, *The Law of the Sea Convention,* Catalogue No P-322E (Ottawa: Government of Canada, February 1993), online: <publications.gc.ca/Collection-R/LoPBdP/BP/bp322-e.htm>.

145 Robert Beckman & Tara Davenport, "The EEZ Regime: Reflections after 30 Years" in Harry N. Scheiber & Moon Sang Kwon, eds, *Proceedings from the 2012 LOSI-KIOST Conference on Securing the Ocean for the Next Generation* (2012) at 2, online: <www.law.berkeley.edu/files/Beckman-Davenport-final.pdf>; "The United Nations Convention on the Law of the Sea (A Historical Perspective)" (2012), online: UN Division for Ocean Affairs and the Law of the Sea <www.un.org/depts/los/convention_agreements/convention_historical_perspective.htm>.

146 See Suzanne Lalonde, *Canada's Influence on the Law of the Sea* (Waterloo, ON: Centre for International Governance Innovation, February 2018), online: <www.cigionline.org/sites/default/files/documents/Reflections%20no.7%20Lalonde.pdf>.

147 UNCLOS, *supra* note 60.

148 Kristina M. Gjerde & Anna Rulska-Domino, "Marine Protected Areas beyond National Jurisdiction: Some Practical Perspectives for Moving Ahead" (2012) 27 Int'l J Mar & Coast L 351.

149 UNCLOS, *supra* note 60, art 193.

150 *Ibid,* art 194.

151 *Convention on Biological Diversity,* June 5, 1992, 1760 UNTS 79, 31 ILM 818 (entered into force December 29, 1993) [CBD]; Rosemary Rayfuse, "Biological Resources" in Daniel Bodansky, Jutta Brunnée, & Ellen Hey, eds, *The Oxford Handbook of International Environmental Law* (Oxford: Oxford Handbooks, 2008) 362 at 362.

152 CBD, *supra* note 151, art 22(2). Art 22(1) also states that "[t]he provisions of this Convention shall not affect the rights and obligations of any Contracting Party deriving from any existing international agreement, except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity."

153 Alan Boyle, "Relationship between International Environmental Law and Other Branches of International Law" in Bodansky, Brunnée, & Hey, *supra* note 150, 125 at 139.

154 CBD, *supra* note 151, art 6. Canada prepared the Canadian Biodiversity Strategy in 1995. Environment Canada, *Canadian Biodiversity Strategy: Canada's Response to the Convention on Biological Diversity* (Hull, QC: Minister of Supply and Services Canada, 1995), online: Biodiversity Convention Office <static1.squarespace.com/static/613fb778a76e244eef08775d/t/61980496e7a298468064155d/1637352600059/Canadian_Biodiveristy_Strategy.pdf>.

155 Parties have agreed to report every four years on progress towards implementing the convention domestically. Canada submitted its 6th National Report to the CBD in 2019, which provides an overview of its progress towards meeting the 2020 Biodiversity Goals and Targets for Canada and highlights Canada's contributions to the global Strategic Plan for Biodiversity 2011–2020. Environment and Climate Change Canada, *Summary of Canada's 6th National Report to the Convention on Biological Diversity* (Gatineau, QC: Environment and Climate Change Canada, 2019), online: Biodiversity Convention Office <https://www.biodivcanada.ca/reports/national-reports-to-cbd/6th-national-report>.

156 CBD, *supra* note 151, art 8(a).

157 *Ibid,* art 8(d), (f).

158 For more information, see the CBD website, <www.cbd.int/>. See also Secretariat of the Convention on Biological Diversity, *Handbook of the Convention on Biological Diversity: Including Its Cartagena Protocol on Biosafety,* 3d ed (Montreal: Secretariat of the Convention on Biological Diversity, 2005), online: <www.cbd.int/doc/handbook/cbd-hb-all-en.pdf>; Henning von Nordheim, "Marine Protected Areas: Global Framework, Regional MPA Networks and a National Example" in Markus Salomon & Till Markus, eds, *Handbook on Marine Environment Protection* (Cham, Switzerland: Springer International Publishing, 2018) 871.

159 See Mark Douglas Spalding et al, "Protecting Marine Spaces: Global Targets and Changing Approaches" (2013) 27:1 Ocean Yearbook 213 at 221 (Table 1).

160 See "Voluntary International Marine Conservation Designations" below, as well as discussion on OECMs in Chapter 3. See also Fisheries and Oceans Canada, *Operational Guidance for Identifying "Other Effective Area-Based Conservation Measures" in Canada's Marine Environment* (2017) online: Fisheries and Oceans Canada <www.dfo-mpo.gc.ca/oceans/publications/oecm-amcepz/index-eng.html>.

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Supp No 13, UN Doc A/810 (1948) 71; "The Core International Human Rights Instruments and Their Monitoring Bodies," online: Office of the High Commissioner of Human Rights <www.ohchr.org/en/core-international-human-rights-instruments-and-their-monitoring-bodies>.

162 UNDRIP, *supra* note 83.

163 *United Nations Declaration on the Rights of Indigenous Peoples Act, supra* note 84, s 4.

164 *Declaration on the Rights of Indigenous Peoples Act,* SBC 2019, c 44.

165 For discussion on the relationship between international law and Indigenous Protected and Conserved areas, see Chapter 5.

166 "Introduction to IMO," online: International Maritime Organization <www.imo.org/en/About/Pages/Default.aspx>.

167 *Convention on the International Maritime Organization,* March 6, 1948, 289 UNTS 3 (entered into force March 7, 1958).

168 *International Convention for the Safety of Life at Sea,* November 1, 1974, 1184 UNTS 2 (entered into force May 25, 1980) [SOLAS].

169 *International Convention for the Prevention of Pollution from Ships,* November 2, 1973, 12 ILM 1319 (never entered into force) [MARPOL]; *Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973,* February 17, 1978, 1340 UNTS 184 (entered into force November 26, 1983). MARPOL was adopted in 1973 and its protocol was adopted in 1978. The combined convention and protocol entered into force in 1983. Canada became a party to MARPOL in 1993. For a full list of treaties administered by the IMO, see "List of IMO Conventions," online: International Maritime Organization: <www.imo.org/en/About/Conventions/Pages/ListOfConventions.aspx>.

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171 "Regional Fisheries Management Organizations," online: Fisheries and Oceans Canada <www.dfo-mpo.gc.ca/international/dip-rfmo-eng.htm>.

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173 *Ibid,* art 5(g).

174 *Ibid,* arts 8–14.

175 "World Summit on International Development: Plan of Implementation" (September 4, 2002) at 14, online: International Institute for Sustainable Development <s3.us-west-2.amazonaws.com/enb.iisd.org/archive/2002/wssd/PlanFinal.pdf?X-Amz-Content-Sha256=UNSIGNED-PAYLOAD&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIA6QW3YWTJ6YORWEEL%2F20220622%2Fus-west-2%2Fs3%2Faws4_request&X-Amz-Date=20220622T045646Z&X-Amz-SignedHeaders=host&X-Amz-Expires=60&X-Amz-Signature=5f648ed357afec0d5a55ac3360cad62801c7a3be2838e61099ddcd92715d7fc4>.

176 *Ibid* at 15.

177 *Ibid* at 14.

178 *Ibid.* See also *Oceans and the Law of the Sea,* GA Res 57/141, UNGAOR, 57th Sess, UN Doc A/RES/57/141 (2003), arts 51, 53, 62.

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180 *International Convention for the Regulation of Whaling* (December 2, 1946), online: International Whaling Commission <archive.iwc.int/pages/view.php?ref=3607&k=>.
181 "UNESCO 2001 Convention," online: UNESCO <en.unesco.org/underwater-heritage/2001>.
182 "UNESCO 2001 Convention," online: UNESCO <en.unesco.org/underwater-heritage/2001>.
183 UNESCO, *The UNESCO Convention on the Protection of the Underwater Cultural Heritage*, Info-Kit (The Protection of Underwater Cultural Heritage) at 3, online: <unesdoc.unesco.org/ark:/48223/pf0000143085>, Rules 9, 10, 15 and 29 [UNESCO, Info-Kit].
184 "UNESCO 2001 Convention," *supra* note 181.
185 UNESCO, Info-Kit, *supra* note 183 at 3.
186 Liza J. Bowman, "Oceans Apart over Sunken Ships: Is the Underwater Cultural Heritage Convention Really Wrecking Admiralty Law?" (2004) 42:1 Osgoode Hall LJ 1 at 27.
187 *Ibid* at 28–29.
188 *Convention on the Protection of the Underwater Cultural Heritage,* UNESCO, November 2, 2001, 45694 (entered into force January 2, 2009).
189 Bowman, *supra* note 186 at 47.
190 Michael Pitul, *Underwater Cultural Heritage Law and Policy in Ontario: History and Prospects for Reform* (MA Thesis, Simon Fraser University, 2019) at 19.
191 *Convention Concerning the Protection of the World Cultural and Natural Heritage,* November 16, 1972, 27 UST 37, 1037 UNTS 151 (entered into force December 17, 1975) [UNESCO WHC].
192 *Ibid,* art 4. This article states: "Each State Party to this *Convention* recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the *cultural* and natural *heritage* referred to in *Articles* 1 and 2 and situated on its territory, belongs primarily to that State."
193 This definition is found in para 49 of the guidelines, which are available for download from the UNESCO website. See "The Operational Guidelines for the Implementation of the World Heritage Convention" (2019), online: UNESCO <whc.unesco.org/en/guidelines/> [UNESCO, "Operational Guidelines"].
194 At the time of writing, there are 869 cultural sites, 213 natural sites, and 39 mixed sites.
195 UNESCO WHC, *supra* note 191, art 4.
196 *Ibid,* art 6(3).
197 UNESCO, "Operational Guidelines," *supra* note 193. See paras 199–210.
198 UNESCO WHC, *supra* note 191, art 5.
199 UNESCO, "Operational Guidelines," *supra* note 193. These requirements are detailed in para 177 of the guidelines, and the full procedure of listing a site in danger is detailed in paras 177–91 of the guidelines.
200 UNESCO, "Contribution to Part I of the Report of the UN Secretary-General on Developments and Issues Relating to Ocean Affairs and the Law of the Sea (Effects

of Climate Change on the Oceans)" (n.d.), online: <www.un.org/depts/los/general_assembly/contributions_2017/UNESCO.pdf>.

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209 *Commonwealth v Tasmania,* [1983] HCA 21, (1983) 158 CLR 1 (Austl).

210 *Convention on Wetlands of International Importance, Especially as Waterfowl Habitat,* February 2, 1971, 996 UNTS 245 (entered into force December 3, 1982) [*Ramsar Convention*].

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213 *Ibid,* art 2(1).

214 *Ibid,* art 2(4).

215 *Ibid,* art 2(2).

216 *Nunavut Planning and Project Assessment Act,* SC 2013, c 14, s 2; *Northern Jobs and Growth Act,* SC 2013, c 14, s 2.

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665 "Summary of the Parks," *supra* note 662.

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667 *Park Act, supra* note 663, s 5(3). Note that this provision does not apply to Class A parks designated by order in council, which may affect the amount of development and other activities allowed within the park. See *Cypress, supra* note 664 at para 43. See further discussion of this case in "Weaknesses of Parks and Recreation Areas," below.

668 *Park Act, supra* note 663, s 9(1).

669 *Ibid,* s 9(2).

670 *Ibid,* s 9(1).

671 *Ibid,* s 9(4).
672 *Ibid.*
673 Class B parks in British Columbia at the time of writing are Sooke Mountain Provincial Park (450 hectares) and Strathcona-Westmin Provincial Park (3,328 hectares).
674 *Ibid.* Class C Parks in British Columbia at the time of writing are: Beaver Point Provincial Park (16 hectares); Cedar Point Provincial Park (8 hectares); Dead Man's Island Provincial Park (1 hectare); Elko Provincial Park (22 hectares); Eves Provincial Park (19 hectares); Ferry Island Provincial Park (29 hectares); Inonoaklin Provincial Park (12 hectares); Kin Beach Provincial Park (6 hectares); Kitty Coleman Provincial Park (10 hectares); Rock Creek Provincial Park (2 hectares); Tarahne Provincial Park (3 hectares); Wendle Provincial Park (259 hectares); Wood Mountain Ski Park (97 hectares).
675 "Summary of the Parks," *supra* note 662.
676 *Park Act, supra* note 663, s 9(6).
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690 *West Kootenay, supra* note 684 at para 38.
691 *Ibid.*
692 *Ibid* at para 77.

693 *Ibid,* ss 1, 9(5).
694 *Park Act, supra* note 663, s 9(6).
695 *Ibid,* s 28.
696 Robb et al, *supra* note 488 at 313.
697 Auditor General of British Columbia, *supra* note 659 at 21.
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746 *Ibid,* ss 8, 84(1), (2). For example, an individual violating the act is, on first conviction, liable for a fine of up to $250,000, imprisonment of up to two years, or both.

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766 Jamieson & Lessard, *supra* note 652 at 17.

767 *Land Act, supra* note 759, s 8.

768 *Ibid.* "Disposition" is a legal term that means to sell or lease the land, or grant a right-of-way, easement, or licence of occupation on the land. Any of these actions creates a private right to what was formerly public Crown land.

769 *Ibid.*

770 In addition to these four legal measures, land-use policy often refers to an administrative tool known as a "notation of interest." This is a non-legal tool, not tied to the *Land Act,* which is as a planning tool to identify areas of interest or areas with special consideration. It does not preclude other uses of Crown land. It may be used to indicate a planned disposition of lands, or to record long-term interests in Crown land, such as the location of trails, grazing licences, woodlot licences, cultural features, and historical artifacts. Notations of interest are recorded in the Crown land registry for a term of "as long as required," though Crown policy suggests that long-term notations be subject to mandatory review every ten years. See Government of British Columbia*, Land Policy: Form of Crown Land Allocation,* File No 11000-00 FCLA (Ministry of Forests, Lands and Natural Resource Operations, May 26, 2011) at 9–10, online: <www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/form_of_allocation.pdf> [Government of BC, *Land Policy*].

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789 *The Valhalla Wilderness Society v British Columbia (Ministry of Forests),* 1997 CanLII 3531 (BCSC), 1997 CarswellBC 1644.
790 *Ibid* at para 19.
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799 *Environment and Land Use Act,* RSBC 1996, c 117, s 7 [ELUA].
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Chapter 5: Indigenous Law

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867 UNDRIP, *supra* note 83.

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924 *Ibid* at s 8.2.
925 *Ibid* at s 6.6.
926 *Ibid* at ss 6.1, 6.2.

Chapter 6: Local Government

927 *Neskonlith Indian Band v Salmon Arm (City),* 2012 BCCA 379.
928 The *Heritage Conservation Act, supra* note 823, deals specifically with archaeological sites, as do federal and provincial environmental assessment processes.
929 *Islands Trust Act, supra* note 120, ss 3, 4.
930 This delegation is usually considered to be based on the powers assigned to the province under the *Constitution Act, 1867, supra* note 97. See, *e.g.,* "Municipal Institutions in the Province," s 92(8); "Property and Civil Rights in the Province," s 92(13); and "Generally all Matters of a merely local or private Nature in the Province," s 92(16).
931 For regional districts, most of this authority is found in the *Local Government Act, supra* note 120. For municipalities, the *Community Charter* is also relevant. See *Community Charter, supra* note 120.
932 *Islands Trust Act, supra* note 120.
933 For example, the boundaries extend 180 metres and 300 metres past the municipalities of Bowen Island and Tofino, respectively. See *Letters Patent,* Bowen Island, September 2, 1999; *Letters Patent,* Tofino, OIC 1983/1655.
934 Provincial ownership of coastal lands, i.e., the foreshore, the land between the high-water and low-water marks, reflects the general rule that the low-water mark is the seaward extent of provincial territory in marine waters. See Chapter 1 for discussion of jurisdiction over coastal areas.
935 See "Crown Land Policies," online: Government of British Columbia <www2.gov.bc.ca/gov/content/industry/crown-land-water/crown-land/land-policies>. Exceptionally, a local government may have what is known as a "head lease" on the provincially owned foreshore, which allows it to manage the area more comprehensively and sublease portions to marinas and other occupants. An example is the head lease held by the District of West Vancouver. In recent times, however, there has been no indication that the province is interested in expanding the use of head leases.

936 *Land Act, supra* note 759, s 60.
937 *Fisheries Act, supra* note 498.
938 Marine Planning Partnership Initiative, *North Vancouver Island Marine Plan 2015* (2015), online: Marine Plan Partnership <mappocean.org/wp-content/uploads/2015/11/MarinePlan_NorthVancouverIsland_28072015_corrected.pdf>.
939 Currently, there are ten regional districts that have developed regional growth strategies. They can be adopted voluntarily or at the direction of the provincial government. See "Status of Regional Growth Strategies," online: Government of British Columbia <www2.gov.bc.ca/gov/content/governments/local-governments/planning-land-use/local-government-planning/regional-growth-strategies/status-of-regional-growth-strategies>.
940 *Local Government Act, supra* note 120, ss 432(1), 434, 436. The act lays out several processes, including settlement and arbitration, to be followed in the event that a local government does not accept the regional growth strategy.
941 *Ibid,* s 428.
942 *Ibid,* s 429.
943 *Ibid,* s 443.
944 *Ibid,* s 445.
945 *Ibid,* s 446.
946 Regional and Strategic Planning, Capital Regional District, *Regional Growth Strategy Capital Regional District* (January 2018) at 24, online: Capital Regional District <www.crd.bc.ca/docs/default-source/crd-document-library/bylaws/regionalgrowthstrategy/4017--capital-regional-district-regional-growth-strategy-bylaw-no-1-2016.pdf?sfvrsn=ecb611ca_4>.
947 *Local Government Act, supra* note 120, s 429.
948 *Ibid,* s 437.
949 *Local Government Act, supra* note 120, ss 471(1), 472(1); *Islands Trust Act, supra* note 120, s 29(1)(b).
950 Cowichan Valley Regional District, bylaw No 3605, *CVRD Electoral Area A – Cowichan Bay Official Community Plan* (2013), s 2.4.
951 District of North Saanich, bylaw No 1130, *Official Community Plan Bylaw No. 1130* (2007), s 2.2.
952 *Local Government Act, supra* note 120, s 473(1)(d).
953 *Local Government Act, supra* note 120, s 474(1)(d).
954 *Ibid,* s 473(1)(d).
955 *Ibid,* s 478.
956 *Ibid,* s 479(1)(c).
957 *Ibid,* s 479(3).
958 See *Community Charter, supra* note 120, Schedule, s 1, "land." For example, in *Salt Spring Island Local Trust Committee v BandB Ganges Marina Ltd, supra* note 127, it was found that the zoning bylaw could apply to a "floating structure" (the floating office of the Ganges Marina that was formerly a barge) that was not a vessel used or designed to be used in navigation. See also *Islands Trust v Pinchin Holdings Ltd,* 1981 CanLII 464 (BCCA).
959 *Squamish (District) v Great Pacific Pumice Inc, supra* note 126.
960 *Interpretation Act, supra* note 125, s 14(2).
961 *Canadian Occidental Petroleum Ltd v District of North Vancouver, supra* note 124.
962 *West Kelowna (District) v Newcomb, supra* note 127.

963 *Ibid.*
964 *The Corporation of the City of Victoria v Zimmerman,* 2018 BCSC 321 at paras 2 and 31.
965 *Ibid* at para 25. In this case, the province had granted leases and a licence of occupation to the City of Victoria over the foreshore and seabed of the Gorge Waterway for public and marine park purposes under ss 38 and 39 of the *Land Act,* respectively. However, the licence of occupation was not determinative.
966 *Zongshen (Canada) Environtech Ltd v Bowen Island (Municipality),* 2017 BCCA 267.
967 Bowen Island Municipality, bylaw No 57, *Land Use Bylaw* (2002) (consolidated December 2021), s 4.13.1.
968 *Ibid,* s 3.2.
969 "Marine Action Strategy" (2018), online: District of Squamish <squamish.ca/your government/projects-and-initiatives/marinestrategy/#:~:text=The%20purpose%20of%20the%20Marine,social%2C%20cultural%20and%20economic%20benefits>.
970 District of Squamish, bylaw No 2200, *Zoning Bylaw* (2011) (consolidated October 2022), ss 39G-K.
971 *Ibid* at ss 39G-I.
972 *Ibid* at s 39G.2(f).
973 District of Squamish, *Report to Council: Zoning Bylaw Amendment Bylaw (Marine Zones) No. 2771, 2020* (March 16, 2021) at 16, online: <squamish.civicweb.net/FileStorage/F57F586571904504A497875A0AFDBBC7-RTC%20-%20Marine%20(combined).pdf>.
974 *Ibid.*
975 *Ibid* at s. 39J.3(c).
976 Village of Lions Bay, bylaw No 520, *Zoning and Development By-law* (2017), ss 12.1, 13.1.
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986 *Fonseca v Gabriola Island Local Trust Committee,* 2018 BCSC 1684. The decision was appealed by the Local Trust Committee, with a hearing set for late 2020 at the BC Court of Appeal. Whatever the result of the appeal, it is well recognized in law that the provincial government could simply extinguish the common law right at issue, if it exists, such as by an amendment to the *Local Government Act.*

987 *Green Shores, supra* note 985 at 38. Complementary local government powers include regulating runoff, screening, and landscaping, which establish authority, for example, to manage runoff, limit impermeable surfaces, and create landscaping requirements for different zones and uses. See *Local Government Act, supra* note 120, ss 523, 527.

988 See, *e.g.,* "Small Craft Harbours Abandoned and Wrecked Vessels Removal Program" (January 10, 2020), online: Fisheries and Oceans Canada <www.dfo-mpo.gc.ca/sch-ppb/vessels-bateaux/index-eng.html>. See also BC Ministry of Forests, Lands, and Natural Resource Operations, *Dealing with Problem Vessels and Structures in BC Waters,* online: Government of British Columbia <www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/dealing_with_problem_vessels_and_structures.pdf?bcgovtm=CSMLS>.

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997 *Ibid* at 72, 76.

998 *Ibid* at 76.

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1001 Regional District of Nanaimo, bylaw No 500.422, *supra* note 995 at 5–24.

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1003 Salt Spring Island Local Trust Committee, bylaw No 434, *Official Community Plan* (2008), Schedule A, Vol 2, s E.3.1.1.
1004 *Ibid,* s E.3.4.3.
1005 *Ibid,* s E.3.4.5.
1006 *Ibid,* s E.3.4.13.
1007 *Ibid,* s E.3.4.22.
1008 *Local Government Act, supra* note 120, s 489(1).
1009 *Ibid,* s 489(2).
1010 *Green Bylaws Toolkit, supra* note 992 at 87. The provincial government may override development permit bylaws if it deems the bylaw to be, either in full or in part, contrary to the public interest of British Columbia. See *Local Government Act, supra* note 120, s 584(1)(d).
1011 *Local Government Act, supra* note 120, s 488(2).
1012 *Green Bylaws Toolkit, supra* note 992 at 88.
1013 See Katie Derosa, "In 5–4 Vote, Saanich Tosses Environmental Permit Bylaw," *Times Colonist* (October 28, 2017), online: <www.timescolonist.com/news/local/in-5-4-vote-saanich-tosses-environmental-permit-bylaw-1.23078146>.
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Chapter 7: Interjurisdictional Legal Coordination

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1084 Marine Plan Partnership Initiative, *North Vancouver Island Marine Plan* (2015) at 6.

1085 Marine Plan Partnership Initiative, *North Coast Marine Plan* (2015) at 177.

1086 Marine Plan Partnership Initiative, *Regional Action Framework* (2016) at 26.

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Appendix 1: Jurisdiction over Specific Marine Areas and Activities

1186 Although there are privately owned "water lots" in British Columbia, it is no longer provincial policy to grant these. With regard to federal jurisdiction in coastal areas, in addition to designated federal port lands, which are not subject to municipal regulation regarding land use, there are also "small craft harbours" that are owned and operated by Fisheries and Oceans Canada, or in some cases by third-party community organizations. See "Small Craft Harbours Program" (August 1, 2019), online: Fisheries and Oceans Canada <dfo-mpo.gc.ca/sch-ppb/aboutsch-aproposppb/index-eng.html>.

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1191 The District of West Vancouver has relied on its head lease with the province to carry out extensive work under its Shoreline Protection Plan. Efforts to reduce wave

energy in exposed areas, with the goal of creating reefs that help maintain the supply of sediment on the shore, include related habitat benefits. West Vancouver has also worked to reconfigure shoreline structures, such as piers, to improve sediment transport, and has also worked together with stewardship groups on estuary restoration, which has long-term sedimentation benefits. See "Foreshore Habitat Restoration," online: West Vancouver <westvancouver.ca/environment/major-projects/foreshore-habitat-restoration>.

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Notes: "*t*" after a page number indicates a table; "*f*" indicates a figure or map. "IMO" stands for International Maritime Organization; "MPA" for marine protected area; "NAPTE" for Natural Area Protection Tax Exemption Program; "NMCA" for National Marine Conservation Area; "NWA" for National Wildlife Area; and "UNESCO" for United Nations Educational, Scientific and Cultural Organization.

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