THE JURISDICTION TO REGULATE AQUACULTURE IN CANADA

by

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Abstract

Canadian aquaculture regulations need reform. Aquaculture regulations are constitutionally unsound and environmentally inconsistent. The federal government regulates aquaculture in British Columbia but the provinces regulate aquaculture in the Atlantic provinces despite the fact that similar provincial regulations were struck down as unconstitutional in British Columbia in *Morton v British Columbia (Minister of Agriculture and Lands)*. No appeal court in Canada has ruled on the constitutionality of provincial aquaculture laws. As a result, provincial aquaculture laws are vulnerable to attack and aquaculturists face uncertainty. The environment also suffers from different environmental standards from province to province. In British Columbia, the federal government applies stringent disease and escapee regulations whereas in the Atlantic provinces disease and escapee regulations vary greatly.

The purpose of this thesis is to clarify the scope of the federal and provincial legislative powers to regulate aquaculture. I conclude that the *Morton* decision interpreted the federal “sea coast and inland fisheries” power too broadly, incorrectly including net-pen aquaculture as a “fishery”. I then apply the pith and substance analysis to the provincial aquaculture laws impugned in *Morton* and I conclude that provincial escapee regulations are likely *ultra vires* but that provincial seafloor pollution regulations are likely *intra vires*. I also apply the pith and substance analysis to the aquaculture regulations in the Atlantic provinces and conclude that their property rights laws are likely *ultra vires* but their disease laws are likely *intra vires*. This review of escapee and disease regulations exposes unacceptable discrepancies in the standards between the provinces. In addition, I clarify jurisdictional issues that may arise regarding shellfish, plant, on-land, and offshore
aquaculture. Finally, I critique the federal *Pacific Aquaculture Regulations* created in response to the *Morton* decision. I conclude that they lack transparency and they permit the release of deleterious substances that are, at the same time, prohibited by the *Fisheries Act*. By articulating the scope of legislative power relevant to aquaculture, this thesis defines a foundation upon which Canada and the provinces can build sustainable and consistent aquaculture regulations for future generations.
Preface

This thesis is the original, unpublished, and independent work of Alexander Ross Clarkson.
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Chapter 1: Introduction

Trying to forecast salmon returns two years in advance is arguably more difficult than trying to forecast the weather over the same time period.¹

1.1 The Economic and Environmental Impacts of Aquaculture

Wild fish populations are critically threatened around the world.² Ocean ecosystems are unable to sustainably supply the growing world market with fish.³ The high capital requirements of modern harvest fishing demand constant and predictable yields to secure financing.⁴ However, ocean ecosystems provide yields that fluctuate unpredictably with seasons and climatic events.⁵ In the past, harvesting that did not respect fluctuations in natural abundances caused enormous fisheries to collapse.⁶ In an effort to balance conservation and harvest interests, scientists have attempted to predict sustainable yields for harvest fleets.⁷ However, ecological interactions in the open ocean have proven too

¹ Transcript of testimony of Dr. John Reynolds given 28 October 2010 as part of the Cohen Commission Inquiry into the Decline of Sockeye Salmon in the Fraser River at 23, online: Cohen Commission <http://www.cohencommission.ca>.
² See FAO, State of World Fisheries and Aquaculture 2012 (Rome: FAO Fisheries and Aquaculture Department, 2012) [FAO, “State of the World Fisheries”] (“[m]ost of the stocks of the top ten species, which account in total for about 30 percent of the world marine capture fisheries production, are fully exploited and, therefore, have no potential for increases in production, while some stocks are overexploited and increases in their production may be possible if effective rebuilding plans are put in place” at 53); UNEP, Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication (Geneva: UNEP, 2011) (“[s]tudies have estimated that by 2003, some 29 per cent of the world’s marine fisheries had collapsed in the sense that their current catch level was less than one-tenth of the maximum registered catch” at 87).
³ See ibid (“[t]he world’s marine fisheries have experienced different stages, increasing from 16.8 million tonnes in 1950 to a peak of 86.4 million tonnes in 1996, and then declining to stabilize at about 80 million tonnes, with interannual fluctuations” at 52).
⁶ See Bavington, supra note 4.
⁷ See ibid; Joseph Gough, Managing Canada’s Fisheries: From early days to the year 2000 (Sillery: Septentrion, 2007) at 420-22.
dynamic for reliable management predictions.\textsuperscript{8} “We know even less about what happens in the ocean than what happens in Russia, even in the time of the Soviet Union.”\textsuperscript{9} Furthermore, local fishers often dispute the conservation limits imposed by government and stage protest fisheries in an effort to re-open closed fisheries.\textsuperscript{10} Finally, and perhaps most crucially, scientists predict global warming will have devastating impacts on wild fish populations. Increases in the temperature of the Fraser River in British Columbia to 19-20°C can cause 20-40% mortality in Fraser River sockeye salmon and temperatures above 20°C can cause 100% mortality.\textsuperscript{11} In the summers between 2008 and 2012, the Fraser River was frequently between 18-20°C.\textsuperscript{12}

In many ways aquaculture is a beacon of hope.\textsuperscript{13} Aquaculture is human involvement in the production of fish.\textsuperscript{14} Unlike wild fisheries, aquaculture can produce regular and predictable yields.\textsuperscript{15} By using the same technological advantages as agriculture, aquaculture

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\item See Bavington, supra note 4 at 36-53; ibid at 420.
\item Transcript of testimony of Dr. John Reynolds given 25 October 2010 as part of the Cohen Commission Inquiry into the Decline of Sockeye Salmon in the Fraser River at 32, online: Cohen Commission <http://www.cohencommission.ca>.
\item See Bavington, supra note 4 at 76; Rod Mickleburgh, “West Coast fishermen defy law in salmon catch” The Globe and Mail (27 August 2002) online: Globe and Mail Inc. <http://www.theglobeandmail.com>; R v Anderson, 2004 BCSC 1745, 65 WCB (2d) 51.
\item See e.g. FAO, “State of the World Fisheries”, supra note 2 (“An increase in integrated farming of rice and fish is possible and would benefit farmers, consumers and the environment worldwide” at 32); Faisal Moola & David Suzuki, “David Suzuki: Salmon Farming May be a Good Idea Afterall”, The Georgia Straight (27 April 2010), online: Vancouver Free Press Publishing Corp <http://www.straight.com> (“… wild salmon face many other threats, including overfishing, habitat loss, and climate change, and we don’t yet understand all the factors contributing to their decline. Farming may be our only option …”).
\item See Pacific Aquaculture Regulations, SOR/2010-270 (“[A]quaculture’ means the cultivation of fish” at s 1); Office of the Commissioner for Aquaculture Development, Legislative and Regulatory Review of Aquaculture in Canada (Ottawa: Office of the Commission for Aquaculture Development, 2001) (“the culture of aquatic organisms, including fish, molluscs, crustaceans and aquatic plants. Culture implies some form of human intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc. Culture also implies individual or corporate ownership of the stock being cultivated” at 5).
\end{enumerate}
\end{footnotesize}
is also able to produce more product with less input. Fish are fenced into a private area, reproduction and feed are controlled, and predation is virtually eliminated. Furthermore, selection of particular genetic strains leads to more productive generations of fish. The result is that feed inputs are more efficiently converted into growth when compared to wild fish. While many criticize aquaculture on the ground that it uses fishmeal derived from wild fisheries, three quarters of global aquaculture production uses little or no fishmeal. Farmed shellfish such as clams and mussels feed on the natural flow of nutrients. A large portion of carp aquaculture sites utilize agricultural wastes, require little external fish feed, and the aquaculturist can sustainably assimilate wastes into rice fields. Furthermore, salmon aquaculture uses feed at least as efficiently as wild salmon harvesting. Given that

17 See *ibid* at 2-3.
19 See Beveridge, “Cage Aquaculture”, *supra* note 16 at 2-3.
20 See e.g. Coastal Alliance for Aquaculture Reform, “Fish Feed”, *Farmed and Dangerous*, online: Coastal Alliance for Aquaculture Reform <http://www.farmedanddangerous.org> (“[s]almon feed is made, in part, from fishmeal and fish oil—concentrated products requiring much larger volumes of small ocean fish (such as anchovies, herring and sardines) to produce one serving of food for a person than would be required if these were consumed directly”).
22 See *ibid* at 1018.
24 ICES Advisory Committee on Ecosystems, “Report of the Working Group on Ecosystem Effects of Fishing Activities” 14-21 April 2004, ICES CM 2004/ACE:03 (“at least as much fish flesh for human consumption can be produced in [salmon] aquaculture systems for every 100 t of sandeel biomass processed as is likely to be harvestable from the natural marine food web of the North Sea.” at 72). See also FAO, “Fish as feed inputs”, *supra* note 24 at 39; Rosamund Naylor & Marshall Burke, “Aquaculture and Ocean Resources: Raising Tigers of the Sea”, (2005) 30 Annu Rev Environ Resour 185 (“[n]evertheless, fish farming is almost certainly more efficient because farmed fish are protected from mortality sources, such as predators, and they do not have to forage for food” at 200). Rather than advocate for reductions in salmon consumption altogether, which would be the most sustainable path, some conservation groups suggest consumers should switch from farmed salmon to wild salmon: see e.g. Ocean Futures Society, “Farmed Salmon”, *Ocean Futures Society*, online: Ocean Futures Society <http://www.oceanfutures.org>; Alexandra Morton, “No more licences or expansion for BC fish farms – 10 months” (26 January 2010) online: Alexandra Morton <http://www.alexandramorton.typepad.com>. See also FAO, *Fish as feed inputs for aquaculture: Practices, sustainability and implications* (Rome: FAO, 2009) (“65.8% of global 2004 fishfeed landings derived from Peruvian anchovy (anchoveta), amounting to over 10 million tonnes” at 14) [FAO, “Fish as feed inputs”].
aquaculture is continually improving its efficiency, the critical issue for the future of aquaculture is effective regulation of its negative side effects such as escapee, disease, and pollution concerns.

Some Canadian aquaculture sites are also moving toward more sustainable “polyculture” systems wherein multiple species are farmed together. Polyculture salmon farming involves growing shellfish and seaweed in the area around the salmon cage. The quantity of energy lost in uneaten food and waste in a salmon cage is significant (3-5% of feed goes uneaten and 18-26% of the eaten food is released as waste). Placing seaweed and shellfish sites near the salmon site allows the aquaculturist to recycle the uneaten feed and wastes which increases the feed conversion ratio of the system as a whole. Lowering the feed conversion ratio is important for sustainable aquaculture.

In addition to its growing ecological significance, aquaculture has become a significant portion of the Canadian economy. In 2010, Canadian aquaculture operations earned over one billion dollars in sales and employed more than 15,700 people. Atlantic salmon is the main species produced in Canada (84% of national aquaculture revenue),

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25 See e.g. HM Gjøen & HB Bentsen, supra note 18 at 1013; Naylor, supra note 21 at 1018.
26 See ICES Advisory Committee on Ecosystems, supra note 24 at 72.
29 See Folke & Kautsky, supra note 27 at 18; Peter A Robson, Salmon Farming: The Whole Story (NanOOSE Bay: Heritage House Publishing, 2006) (uneaten feed estimated between 3-4% at 183); Beveridge, “Cage Aquaculture”, supra note 16 (uneaten feed estimated between 3-5% at 165).
30 Robson, supra note 29 (waste estimated between 20-26% at 183); Beveridge, “Cage Aquaculture”, supra note 16 (nitrogen waste for tilapia estimated at 18.4% at 166).
31 See DFO, “Integrated Multi-Trophic Aquaculture”, supra note 27; Folke & Kautsky, supra note 27 at 18.
32 See ibid; Naylor, supra note 21.
33 See Department of Fisheries and Oceans, National Aquaculture Strategic Action Plan Initiative (NASAPI) 2011 – 2015: An initiative of the Canadian Council of Fisheries & Aquaculture Ministers (CCFAM), (Ottawa: Fisheries and Oceans Canada, 2010) at 1, online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca> [DFO, “NASAPI”].
followed by mussels (5%), trout (5%), oysters (3%), and other finfish and shellfish (3%).

In 2008, Canada was the fourth largest producer of farmed salmon in the world. British Columbia produces the most cultured salmon, followed by New Brunswick, Prince Edward Island, Newfoundland and Labrador, and Nova Scotia. Trout is the main product in Québec, Ontario, and the Prairies, accounting for more than 92 per cent of total production. Aquaculture revenues in British Columbia in 2011 were $469 million compared to $344.8 million in the British Columbia wild harvest sector. Globally, aquaculture is the fastest growing food production activity and is set to overtake global wild fish harvests.

1.2 The Flaws in Canada’s Aquaculture Regulations: Constitutional Uncertainty and Environmental Inconsistency

Aquaculturists have criticized the Canadian aquaculture regulatory regime stating that it creates a difficult business environment. In 2010, the Canadian Aquaculture Industry Alliance (“CAIA”) wrote a letter to the federal Department of Fisheries and Oceans (“DFO”) pushing for a separate federal aquaculture statute and clearer property rights for aquaculturists.

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34 See ibid at 3; Department of Fisheries and Oceans, “2011 Canadian Aquaculture Production Statistics ($000)”, online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca> [DFO, “2011 Canadian Aquaculture Production Statistics ($000)”].
36 See ibid.
37 See ibid.
40 See Exhibit 1626 entered as part of Cohen Commission Inquiry into the Decline of Sockeye Salmon in the Fraser River, online: Cohen Commission <http://www.cohencommission.ca>.
The Canadian aquaculture industry has labored under poorly designed policy & regulations for years as governments have utilized the Fisheries Act to try to manage the industry. Responsibilities for regulations affecting aquaculture are distributed among numerous federal departments and agencies, and those regulations were often designed with activities other than aquaculture in mind. The Fisheries Act is basically a wildlife management act and is not focused on the process of farming in the aquatic environment. Now more than ever before, aquaculture needs an act that recognizes that the process is a food production practice which takes place with fish as private property and occurs in legally defined private spaces. It is not the management of a common property resource which occurs in public waters.\footnote{Ibid at 1.}

The CAIA urged that the separate aquaculture statute specify that:

- fish and sites can be collateral for loans; no fishing would be allowed in, on, or over a privately owned or leased area used in the conduct of aquaculture, or within a specified distance of such a place (100 meters suggested); any person intentionally damaging aquaculture sites or intentionally releasing aquaculture stock would be punishable by a fine. Any theft would be punishable under the Criminal Code; farm biosecurity protocols would be respected.\footnote{Ibid at 2.}

Another significant economic concern for Canadian aquaculturists is confidence that the regulatory requirements will not drastically change. The vast majority of Canadian salmon aquaculture production derives from six large companies,\footnote{See ibid at 24; Bruce I Cohen, The Uncertain Future of Fraser River Sockeye: Volume 1 • The Sockeye Fishery (Ottawa: Minister of Public Works and Government Services, 2012) at 378 [Cohen, “Cohen Commission Final Report Volume 1”].} three of which are subsidiaries of publicly traded Norwegian companies with operations all over the world.\footnote{See Marine Harvest, “Investor Relations”, online: Marine Harvest <http://www.marineharvest.com>; Grieg Seafood, “Investor”, online: Grieg Seafood <http://www.griegseafood.no>; Cermaq ASA, “Investor”, online: Cermaq ASA <http://www.cermaq.com>. The other three are Canadian, privately held companies: Cooke Aquaculture, “About Cooke Aquaculture”, online: Cooke Aquaculture <http://www.cookeaquaculture.com>; Northern Harvest Sea Farms, “Our Story”, online: Northern Harvest Sea Farms <http://www.northernharvestseafarm.com>; Creative Salmon, “Our Story” online: Creative Salmon <http://www.creativesalmon.com>.}

These companies are unable to effectively plan future business if the regulatory regime
were subject to constitutional challenge and complete overhaul. The average salmon aquaculture operation in British Columbia requires a $4.4-5.2 million capital investment and the largest cost in a British Columbia salmon farm is feed. Significant changes in feed regulations could render a profitable operation unviable. In advocating for a federal aquaculture statute that has national application, the CAIA stated:

Judicial challenges to provincial regulations governing aquaculture are only the start of what is expected to be a larger challenge to the industry’s legitimacy. The federal government’s legislative authority to govern aquaculture is likely to be challenged next. The Canadian aquaculture industry needs stronger protection under law, particularly since the federal Fisheries Act (which doesn’t address the practices of farming in the ocean) will be insufficient.

Environmentalists also have a stake in a consistent, constitutional regulatory regime. They prefer a national set of regulations to govern an industry that has trans-boundary effects rather than the current patchwork of federal and provincial regulations that apply differently depending on the province. For example, the federal government regulates aquaculture escapees in British Columbia, whereas the provinces regulate escapees on the east coast. Despite the trans-boundary effects of escapees throughout the Atlantic provinces, aquaculturists in each province are managed by a different regulator and different environmental standards. To address the environmental issues aquaculture poses, Canadians require consistent, constitutional regulations to manage the negative side effects of aquaculture and to define the rights and obligations of the aquaculturist.

48 Exhibit 1626, supra note 40 at 6.
49 See Pacific Aquaculture Regulations, supra note 14.
50 See Aquaculture Act, RSNB 2011, c 112, s 13(1)(f); General Regulation, NB Reg 91-158, s 14.1; Aquaculture Act, RSNL 1990, c A-13, s 4(6)(g); Commercial Aquaculture Regulation, RRQ c A-20.2, r 1, s 31(5), 33, 34.
1.3 The Purpose of this Thesis and its Findings

The purpose of this thesis is to clarify the scope of the federal and provincial legislative powers to regulate aquaculture. By articulating the constitutional boundaries of the two orders of government, this thesis defines a foundation upon which Canada and the provinces can create a constitutionally sound and environmentally consistent regulatory regime. The current regulatory framework is vulnerable to constitutional attack and suffers from inconsistent environmental standards from province to province. Bruce H. Wildsmith produced the only other works on the division of powers issues relating to aquaculture and I draw on those works throughout this thesis.²¹ However, Wildsmith’s works do not assess the constitutionality of existing provincial net-pen regulations nor do they critique the reasoning in *Morton v British Columbia (Agriculture and Lands).*²² This thesis identifies errors in the *Morton* decision, clarifies the scope of federal and provincial powers in relation to aquaculture, and assesses the constitutionality of existing provincial net-pen regulations.

In chapter 2, I review the development of aquaculture law in Canada and highlight the inconsistent patchwork of federal and provincial regulations. In chapter 3, I explain how net-pen aquaculture sites operate and I summarize the *Morton* decision. In chapter 4, I articulate the scope of the federal and provincial power to regulate net-pen salmon aquaculture. I explain the scope of the federal “sea coast and inland fisheries” power in contrast to the provinces’ power over property and civil rights. I also explain the scope of

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²¹ See Wildsmith, “Aquaculture”, *supra* note 45; Bruce H Wildsmith, “Federal, Provincial and Municipal Government Roles in Aquaculture”, (Paper delivered at the National Aquaculture Conference, St. Andrews, 10-14 July 1983) [unpublished]. See also Department of Fisheries and Oceans, Federal Aquaculture Regulation by Bruce H Wildsmith (Ottawa: Department of Fisheries and Oceans, 1984).
²² 2009 BCSC 136, 92 BCLR (4th) 314 [*Morton*].
the federal “peace, order, and good government power”. I apply these constitutional boundaries to the aquaculture laws that existed in British Columbia in Morton and I find that Hinkson J interpreted the scope of the federal “sea coast and inland fisheries” power too broadly and thereby unduly limited the province’s power to regulate aquaculture. I conclude that aquaculture is not a “fishery” within the meaning of the federal fisheries power such that all aquaculture regulations are an exclusive federal matter. I find that, while escapee regulations likely exceed provincial jurisdiction, Hinkson J erred in concluding that British Columbia’s seafloor pollution regulations and civil rights legislation exceeded provincial jurisdiction.

In chapter 5, I apply the constitutional boundaries developed in chapter 4 to the aquaculture laws that currently exist in the Atlantic provinces. I also explain the scope of the concurrent federal and provincial “agriculture” power. I conclude that provincial aquaculture disease regulations are likely intra vires but that provincial property rights legislation over escapees are likely ultra vires. I also find that provinces may regulate the safety issues and the leasing of the seafloor. By contrast, seal predator control and regulation of the public right to fish are exclusively federal matters.

In chapter 6, I analyze the territorial jurisdiction of the provinces and the power over federal lands and lands reserved for Indians. I find that Québec likely regulates aquaculture sites outside its territorial jurisdiction. In chapter 7, I analyze the jurisdiction to regulate other forms of aquaculture in Canada such as shellfish, plant, on-land, and offshore aquaculture. I find that the constitutional boundaries explained in chapters 4, 5 and 6 also clarify the federal and provincial power to regulate shellfish, plant, on-land, and offshore aquaculture.
In chapter 8, I focus on the environmental flaws of the newly enacted federal 
Pacific Aquaculture Regulations. These regulations were enacted in response to the Morton 
decision in which Hinkson J declared British Columbia’s provincial aquaculture regulations 
ultra vires. In chapter 8, I find four flaws in the Pacific Aquaculture Regulations: they 
permit the release of deleterious of substances despite that such releases are prohibited by 
the Fisheries Act, they do not trigger any environmental assessment requirements, they 
lack transparency and finally they may over-delegate powers to the Minister of Fisheries 
and Oceans.

53 RSC 1985, c F-14.
Chapter 2: The Development of Aquaculture Law in Canada

2.1 Introduction

Canada lacks constitutionally sound and environmental consistent aquaculture regulations. As aquaculture developed in Canada over the last 120 years, the multiple layers of regulatory authority crossed into unconstitutional territory. This chapter traces aquaculture law in Canada from its beginnings to its present form. As I discuss below, the regulation of aquaculture has evolved into an unacceptable state. Provincial aquaculture laws were declared *ultra vires* in British Columbia and the federal government accepted the decision and enacted replacement federal regulations in British Columbia.\(^1\) However, similar provincial laws to those struck down in British Columbia continue to exist in Nova Scotia, New Brunswick, Newfoundland, and Québec. The federal government has not enacted regulations for these provinces. As a result, the same activities are regulated by a single piece of federal regulation on the west coast but by multiple pieces of provincial legislation and regulation on the east coast. This position is unacceptable because, as I will show in chapter 5, some of these Atlantic provincial regulations violate the *Constitution Act, 1867*.\(^2\)

Furthermore, various legal challenges to the provincial legislation create uncertainty for communities trying to maintain or create an aquaculture industry. In addition, only a regulator with national jurisdiction can effectively regulate certain aquaculture dangers such as escapees and disease.

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\(^1\) See *Pacific Aquaculture Regulations*, SOR/2010-270.

\(^2\) RSC 1985, App II, No 5 [*Constitution Act*].
2.2 Early Aquaculture

The story of aquaculture begins as early as 2000 B.C. A 4000 year old Egyptian bas-relief depicts Egyptian nobility catching tilapia from an artificial pond, although it is unclear the extent to which aquaculture was used in Egypt for the production in food. The Chinese were likely the first to produce significant quantities of food from aquaculture. A Chinese monograph dated to 300 B.C. explains how to propagate fry and fingerlings in ponds. Chinese rice farmers kept carp directly in rice fields or in nearby plots. The carp fed on farm wastes and the carp wastes fertilized the field creating a closed nutrient cycle that increased the productivity of the land and the water. Oyster farming took place in the Adriatic Sea in 200 B.C. and in Rome in 100 A.D. The maintenance of ponds for the cultivation of breams, sole, flounder and eels was popular among Roman nobility for aesthetic reasons. Common Romans also cultivated fish for food, but production rates did not compare to those in China. Roman fish pond practices carried all the way to England and can be traced back to 100 A.D. in Oxfordshire. During the Middle Ages carp farming was practiced in monasteries throughout England and continental Europe. One of the earliest records of a detailed aquaculture law was an edict by Charlemagne that regulated poaching from ponds, maintenance of ponds, fishing and the sale of fish.

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6 See ibid.
7 See Beveridge & Little, supra note 3 at 14.
8 See James Higginbotham, Piscinae: Artificial Fishponds in Roman Italy (Chapel Hill: University of North Carolina Press, 1997); Beveridge & Little, supra note 3 at 14.
9 See ibid at 14-15.
10 See ibid at 17-18.
11 See ibid at 15-16.
12 See ibid at 16.
In North America, First Nations practiced aquaculture. In 1593, Captain Richard Strong observed “round ponds” that contained fish in Western Cape Breton - territory that would later be identified as Mi’kmaq land. On the west coast, the Nuu’chah’nulth transplanted salmon eggs to stock additional salmon streams. However, evidence of further aquaculture activity among aboriginal peoples is sparse. There is more evidence of the use of fish weirs to capture wild fish which was likely a more efficient means of obtaining fish. Fish weirs allowed wild fish to travel inland at high tide and then were trapped inland when the tide descended. Aboriginal populations in British Columbia, Alaska, Maine, Russia and Australia used fish weirs extensively.

2.3 Aquaculture in Response to Declining Catches

With the growth of science and the decline of wild stocks, aquaculture evolved in the West from rudimentary ponds to highly productive hatcheries. In the wild fishery, there is evidence of overfishing in Europe as early as the 13th century when Edward I instituted a salmon fishing close time through the Salmon Preservation Act of 1285. Shortly after the European settlement of North America, settlers had eliminated a population of gray whales off the New England coast. Similar to fishers in Europe, the North American fishers were

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14 See Joseph Gough, Managing Canada’s Fisheries: From early days to the year 2000 (Sillery: Septentrion, 2007) at 4.
18 See Bolster, ibid (“Evidence suggests that a population of Atlantic gray whales ... became extinct during the late seventeenth or early eighteenth century ... Given the rate at which whales were being killed then, however, it appears likely that his extinction of a North Atlantic marine mammal – the first of the post-
forced to go farther offshore to obtain the same quantities of fish. 19 The first fishery conservation laws were enacted in the territory that would become Canada in the 1770s and 1780s. The first law passed by PEI’s legislative assembly imposed licence conditions for walrus hunting on les îles-de-la-Madeleine. 20 New England walrus hunters were killing thousands of walruses a year and, despite PEI’s law, they wiped out a population of 250,000. 21 In the 1780s New Brunswick and Nova Scotia enacted the first fishing close times to combat declines in the inland salmon fisheries. 22 Despite fishing restrictions, fisheries continued to decline along the east coast. In 1850, the Commissioners for the British Fisheries found that:

By the statements of the fishermen generally, it appears that the boats are almost everywhere obliged to go further from the land than formerly before they find fish; and hence it is assumed either that the fish have changed their runs on account of the fishing that has been carried on, or that the fishing grounds near the shore have been overfished. 23

By 1887, when the United States government enacted the first federal fishing regulations, the halibut, mackerel, and menhaden stocks in the east coast United States had crashed. 24

The first North American aquaculture laws were created in the 18th century to rebuild wild stocks. Unlike Charlemagne’s early aquaculture edicts, the purpose of these laws arose from a concern for wild fish. For example, in the late 18th century, in response to rapidly declining wild oyster stocks, the Rhode Island General Assembly instituted closed

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19 See ibid at 140; Gough, supra note 14 at 79.
20 See Gough, supra note 14 at 24.
21 See ibid.
22 See ibid at 35.
23 See Bolster, supra note 17 at 140.
24 See ibid at 171.
seasons for the oyster fishery.25 As a further conservation measure the General Assembly granted private leases for oyster beds.26 Commercial fishers protested,27 but it is difficult to assess the effect of the leasing scheme on wild oyster populations as both populations were devastated by over-harvesting and pollution during the 19th and early 20th centuries.28

The first aquaculture laws in Canada followed a pattern similar to the United States. After the First Nation sites, the first significant aquaculture sites in Canada were Atlantic coast oyster farms established in 1865.29 By 1868 wild oyster stocks were in significant decline and the PEI legislature instituted closed seasons.30 Aquaculture leases appeared in PEI after it joined Confederation in 1873.31 The Canadian laws granted exclusive fishing rights over oyster beds to the aquaculturist.32 Again, it is difficult to assess whether these laws fulfilled their purpose since both the wild and farmed oyster populations were decimated by over-harvesting and the Malpeque oyster disease.33

As with oyster aquaculture, finfish aquaculture developed in response to falling wild stocks. In 1864, the Norwegian marine zoologist G.O. Sars developed a method for the artificial propagation of marine finfish.34 Before the creation of hatcheries, a traditional

26 See ibid.
27 See ibid at 25.
28 See ibid.
29 See Department of Fisheries and Oceans, “Farming the Seas – A Timeline” online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca> [DFO, “Farming the Seas”].
30 See PEI Department of Agriculture, Fisheries and Aquaculture, “Oyster Production in Prince Edward Island” at 1, online: PEI Department of Agriculture, Fisheries and Aquaculture <http://www.gov.pe.ca>; Gough, supra note 14 at 64.
31 See “Oyster Production in Prince Edward Island”, supra note 30 at 1.
32 See ibid.
33 See ibid at 2.
The finfish aquaculturist would not interfere in the reproductive process. They would subject fry to disease and a limited number of predators. By contrast, hatcheries controlled the entire reproductive process. The first hatcheries produced millions of fry a year. They used a large pond in which wild cod were held until they were ready to spawn. The eggs and milt were then stripped from the females and males respectively by hand and mixed in a container. The eggs were cleaned and placed in wooden incubators. Fresh seawater passed through the incubators.

The first Canadian hatchery of this sort was constructed in 1889 in Newfoundland in an attempt to reverse falling landings. In 1887 the Government of Newfoundland created a fisheries commission to examine fisheries departments in other countries and to provide recommendations on whether the government should create one in Newfoundland. In addition, the Commission was instructed to inquire into:

The depressed condition of our fisheries, during the last few years, and the frequent and alarming failures, especially in our shore fishery, which have recently occurred, ... and to impress on all who are interested in the future of our fisheries the necessity of taking prompt and energetic means for their restoration and protections.

The Commission recommended a hatchery and in 1889 Newfoundland built the largest fish hatchery in North America. It produced 17 million cod fry in its first year of operation. While these hatcheries were productive, they likely had little ameliorative effect on overall

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36 See Baker, supra note 34 at 27.
37 See ibid at 28.
38 See ibid at 27.
39 See ibid.
40 See ibid.
41 See ibid at 25.
42 Ibid.
43 See ibid at 26-27.
44 See ibid at 27. See also DFO, “Farming the Seas”, supra note 29.
stock abundance in the wild. Early hatcheries released the fish too early in the life-stage of the fish for them to survive.45

By confederation in 1867, oyster aquaculture existed in PEI and finfish hatcheries were being studied in Lower Canada.46 In 1868, the first iteration of Canada’s Fisheries Act received royal assent.47 It contained oyster aquaculture provisions that authorized the federal fisheries minister to issue leases to aquaculturists to plant oyster beds and the leases provided the aquaculturist with the exclusive right to the oysters in the leased area.48 These provisions remain largely unaltered in the current Fisheries Act.49 Oyster farms and finfish hatcheries continued to develop in Canada through the first half of the 20th century. Settlers in British Columbia farmed oysters in the 1920s, and in the 1950s oyster farms began using “collectors” to collect wild spat to transfer to private farms.50

2.4 The Development of Net-Pen Aquaculture

Until the 1970s, aquaculture production was small relative to wild harvest and there were few legal developments. Wild fisheries boomed with the introduction of radar and modern trawlers.51 However, during the 1970s, the gains in wild fish landings from industrial fishing fleets began to plateau.52 At the same time, aquaculture began to develop rapidly with the growth of the first net-pen salmon farms. Unlike hatcheries, net-pen farms contained the salmon from egg to processing. The experimentation with salmon aquaculture marked the beginning of highly intensive salmon production systems. Up to this point

45 See Baker, supra note 34 at 28.
46 See DFO, “Farming the Seas”, supra note 29.
47 31 V c 60.
48 Ibid, s 15(4)-(6).
49 Fisheries Act, RSC 1985, c F-14, s 58.
50 See DFO, “Farming the Seas”, supra note 29.
51 See Gough, supra note 14 at 221-44.
52 See ibid at 332.
global finfish aquaculture had been mostly “extensive” or “semi-intensive” systems in which cultured fish obtained their food and nutrients from the natural output rate of the pond or water column they were situated in.\(^{53}\) Examples of such systems are carp in Chinese rice fields that feed on the naturally occurring phytoplankton in the water and seabed oysters that filter out the natural flows of ocean water. Because those systems rely on natural production rates, significant production of the target species requires large areas of land and water\(^ {54}\) and is not economic for the production of carnivorous species such as salmon.\(^ {55}\) Carnivorous species are high on the trophic ladder and require large aquatic ecosystems to generate their food. As a result, the capital required to produce salmon in an extensive system outweighed the value of the salmon such a system could produce. By contrast, intensive aquaculture allows the aquaculturist to control feed intake and reproduction rates to produce high numbers of valuable salmon in a small area.\(^ {56}\) In the 1970s, in the Bay of Fundy, entrepreneurs developed Atlantic salmon farms.\(^ {57}\) British Columbia farmers in Sechelt began to develop sockeye, coho and Chinook farms for human consumption.\(^ {58}\) Atlantic salmon farming was also developing in Norway.\(^ {59}\)

The pace of aquaculture development increased rapidly in the 1980s with the introduction of Atlantic salmon strains into British Columbia. Atlantic salmon are particularly suited to aquaculture production because they are non-aggressive, they can

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54 See Frank Asche & Trong Bjørndal, The Economics of Salmon Aquaculture, 2d ed (West Sussex: Blackwell, 2007) at 7-16.
55 See ibid.
56 See ibid.
57 See DFO, “Farming the Seas”, supra note 29.
58 See ibid.
withstand stress, and they convert feed more efficiently into meat than Pacific salmon.\textsuperscript{60} Federal regulations permitted the importation of Atlantic salmon into Canada with a permit.\textsuperscript{61} However, until 1985, DFO’s internal policy was to deny Atlantic salmon imports into British Columbia.\textsuperscript{62} In 1985, DFO released its \textit{Draft Importation of Salmonids Policy} and Canada began importing Atlantic salmon eggs from Scotland.\textsuperscript{63} In 1986, British Columbia declared a moratorium on new salmon aquaculture licences and commissioned a public inquiry led by Dr. David Gillespie into salmon aquaculture in British Columbia.\textsuperscript{64} Among other things, the Commission recommended that the salmon aquaculture industry continue\textsuperscript{65} but that governments clarify the jurisdiction and division of responsibilities between the provincial and federal government.\textsuperscript{66} British Columbia lifted the moratorium within 6 months of its declaration. In the two years between 1986 and 1988, aquaculture revenues from Atlantic and Pacific coast aquaculture production increased more than tenfold from 35 million to 433 million.\textsuperscript{67}

Before 1988, there were no net-pen specific laws in the provinces. There were also no federal laws or regulations except those pre-existing oyster bed, pollution, and fish

\textsuperscript{60} See \textit{ibid} at 64; John Volpe, \textit{Super un-Natural: Atlantic Salmon in BC Waters} (Vancouver: David Suzuki Foundation, 2001) at 9.
\textsuperscript{61} See \textit{Salmonidae Import Regulation}, SOR/69-363; \textit{Fish Health Protection Regulation}, CRC, c 812 (1978).
\textsuperscript{63} See \textit{ibid}; Alexandra Morton, “Atlantic salmon - How did this happen to British Columbia?”, \textit{supra} note 62; Knapp, \textit{supra} note 59. See also Department of Fisheries and Oceans, “Public Reporting on Aquaculture - Salmon Egg Imports” online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca> [DFO, “Public Reporting on Aquaculture – Salmon Egg Imports"] (The source countries for Atlantic salmon egg imports into British Columbia are Scotland, United States, elsewhere in Canada, Ireland, and Iceland).
\textsuperscript{64} David Gillespie, \textit{An Inquiry into Finfish Aquaculture in British Columbia: Report and Recommendations} (Victoria: The Inquiry, 1986) [unpublished].
\textsuperscript{65} \textit{Ibid} at 28.
\textsuperscript{66} \textit{Ibid} at 30.
\textsuperscript{67} See DFO, “Farming the Seas”, \textit{supra} note 29.
importation laws found in the *Fisheries Act* and its regulations. In 1988, British Columbia and Canada signed a Memorandum of Understanding ("MOU") setting out the responsibilities of the two levels of government.\(^68\) Under this MOU British Columbia assumed responsibility for issuing licences and specifying the conditions of those licences,\(^69\) Canada for collection of brood stock and regulating the use of drugs and vaccines.\(^70\) The MOU provided the governments shared responsibility for inspections and enforcement but, in practice, provincial conservation officers conducted the majority of the inspections.\(^71\) Similar MOUs were signed between Canada and Newfoundland in 1988,\(^72\) New Brunswick in 1989,\(^73\) and Nova Scotia in 2002.\(^74\) The MOU between Canada and PEI in 1987 was different in that it delegated the administration of PEI’s aquaculture laws to Canada.\(^75\) As in British Columbia, the Atlantic provinces (with the exception of PEI) undertook the core responsibility of approving licences and setting the conditions of those licences. While the provinces would still refer breaches of federal legislation to the federal government, the provinces assumed the responsibility for managing the risks caused by aquaculture sites to wild stocks.

In 1988, New Brunswick passed the first aquaculture specific statute in Canada.\(^76\) The *Aquaculture Act* prohibited the culture of aquatic animals or plants without a provincial

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\(^{68}\) *Canada/British Columbia Memorandum of Understanding on Aquaculture Development* (6 September 1988).

\(^{69}\) *Ibid.*

\(^{70}\) *Ibid.*


\(^{72}\) *Canada/Newfoundland Memorandum of Understanding on Aquaculture Development* (1988).

\(^{73}\) *Canada-New Brunswick Memorandum of Understanding on Aquaculture Development* (1989).

\(^{74}\) *Memorandum of Understanding on Aquaculture Development between Minister of Fisheries and Oceans (Canada) and Minister of Agriculture and Fisheries (Nova Scotia)* (2002).


\(^{76}\) SNB 1988, c A-9.2.
licence and it regulated escapees and disease. In 1989, British Columbia created its first aquaculture specific laws by amending the provincial *Fisheries Act.* British Columbia’s *Fisheries Act* prohibited aquaculture without a provincial licence. British Columbia also enacted the *Aquaculture Regulation* to regulate escapees and the *Aquaculture Waste Control Regulation* to regulate wastes. Aquaculturists also needed a lease under the *Lands Act* to authorize the use of the Crown’s sea bed. By 1991, all commercial aquaculture facilities in British Columbia were licensed by the province. In 1995, British Columbia imposed another salmon aquaculture moratorium for new sites and requested that the British Columbia Environmental Assessment Office conduct an environmental assessment of the entire industry in British Columbia. The report, released in 1997 and entitled *Report of the Salmon Aquaculture Review,* concluded that salmon aquaculture “presents a low overall risk to the environment.” In 2000, the Auditor General of Canada also published a report entitled *The Effects of Salmon Farming in British Columbia on the Management of Wild Salmon Stocks.* Among other findings, the report found that:

Fisheries and Oceans is managing the salmon farming industry on the basis that it poses an overall low risk to wild salmon and habitat. However, the Department [of Fisheries and Oceans] is not fully meeting its legislative obligations under the [federal] *Fisheries Act* to protect wild Pacific salmon stocks and habitat from the effects of salmon farming ...

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78 RSBC 1996, c 149.
81 RSBC 1996, c 245.
82 See *Morton v British Columbia (Agriculture and Lands)*, 2009 BCSC 136 at para 32, 92 BCLR (4th) 314 [*Morton*].
In 2002, British Columbia lifted its moratorium on new aquaculture sites and enacted the *Finfish Aquaculture Waste Control Regulation* to regulate the accumulation of pollution on the seafloor below the aquaculture site. The regulations allowed the release of wastes into the environment so long as there was no measurable effect on the diversity of species on the seafloor below the site. British Columbia also monitored sea lice loading on cultured salmon through the provincial licence conditions. Aquaculture licensing laws were enacted by Newfoundland in 1988 and Nova Scotia in 1996. As in British Columbia and New Brunswick, the other Atlantic provinces also prohibited the practice of aquaculture without a provincial licence. Through the regulations and licence conditions the Atlantic provinces protected wild fish concerns through escapee and disease management.

In the 1990s, the glut of salmon production worldwide led to a sharp decline in prices forcing many smaller farms into bankruptcy or to consolidate with other farms. In 1989, there were 75 aquaculture companies in Canada, but by 1994 there were only 17. Some have attributed the competitive market position of large Norwegian companies to this period of consolidation. As of 2011, three Norwegian companies produced the majority of

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86 BC Reg 256/2002.
87 See *ibid*, ss 1-2, 4.
91 See *Aquaculture Act*, supra note 89; *Fisheries and Coastal Resources Act*, supra note 90.
92 Agreement for Commercial Aquaculture Development between the Government of Canada and the Government of the Province of Prince Edward Island (1987) (PEI is the exception as it delegates the administration of its aquaculture laws to DFO).
93 See Knapp, *supra* note 59 at 62.
94 See *ibid* at 64.
cultured salmon in British Columbia and one Canadian company produced the majority of cultured salmon in the Atlantic provinces.  

Through the 1990s and 2000s, aquaculture continued to develop in every province and the Yukon territory. Each province regulated the core aquacultural activities often in different ways. Saskatchewan, Ontario, and Québec created aquaculture laws in 1995, 1998, and 2003 respectively. In 1999, federal, provincial and territorial Ministers formed the Canadian Council of Fisheries and Aquaculture Ministers (“CCFAM”) to further shared objectives in the fishery and aquaculture sectors. They signed an agreement to promote interjurisdictional cooperation and improve resource management.

While each maritime province had an MOU with the federal government and each aquaculture law contained similar themes, the precise requirements varied considerably. For example, a salmon aquaculturist in British Columbia was subject to explicit requirements regarding the diversity of species on the seafloor whereas a salmon aquaculturist in New Brunswick was not. The aquaculture laws in Newfoundland, Nova Scotia and New Brunswick gave aquaculturists explicit property rights in their fish, while the aquaculture laws in British Columbia, PEI and Québec did not. Although companies on the east coast operated in more than one Atlantic province, those companies


97 The Fisheries Regulations, RRS c F-16.1 Reg 1, s 45-46.

98 Fish Licensing, O Reg 664/98, 19-30.

99 Commercial aquaculture Regulation, RRQ, c A-20.2, r 1; *An Act respecting commercial aquaculture*, RSQ, c A-20.2.

100 See Canadian Intergovernmental Conference Secretariat, *Agreement on Interjurisdictional Cooperation with Respect to Fisheries and Aquaculture*.

101 See *ibid* at 6.

102 BC Reg 256/2002, Section 1-2, 4.

103 *Aquaculture Act*, RSNB 2011, c 112.

were subject to different rights and obligations.\textsuperscript{105} Despite these inconsistencies, the federal and provincial governments appeared content with a \textit{modus operandi} in which the provincial legislatures regulated the core aquaculture activities with the federal government playing a background role regulating fish egg imports into Canada and interprovincial fish transfers.

This \textit{modus operandi} was disrupted on February 9, 2009 when Hinkson J of the British Columbia Supreme Court released his judgment in \textit{Morton v British Columbia (Minister of Agriculture and Lands)} declaring British Columbia’s core aquaculture laws \textit{ultra vires} the provincial legislature.\textsuperscript{106} Morton argued that the province’s finfish aquaculture sites were a “fishery” and therefore fell within the exclusive jurisdiction of Parliament to regulate the “Sea Coast and Inland Fisheries” pursuant to s. 91(12) of the \textit{Constitution Act}.\textsuperscript{107} Hinkson J agreed. I discuss the details of this decision in chapter 3. Hinkson J suspended the declaration of invalidity to give the federal government time to enact replacement legislation. Marine Harvest Ltd. appealed the decision and raised an argument not originally made before Hinkson J.\textsuperscript{108} As a result, the Court of Appeal remitted the case to Hinkson J to consider the new argument\textsuperscript{109} which he dismissed with supplemental reasons.\textsuperscript{110} Marine Harvest Ltd. did not appeal this supplemental decision. The province of British Columbia did not appeal any of the decisions. Furthermore, the Attorney General in right of Canada did not exercise its right to intervene in the

\textsuperscript{106} \textit{Supra} note 82.
\textsuperscript{107} \textit{Constitution Act}, \textit{supra} note 2.
\textsuperscript{108} See \textit{Morton v British Columbia (Agriculture and Lands)}, 2009 BCCA 481, 97 BCLR (4th) 103.
\textsuperscript{109} See \textit{ibid}.
\textsuperscript{110} See \textit{Morton v British Columbia (Agriculture and Lands)}, 2010 BCSC 100, 2 BCLR (5th) 306 [\textit{Morton No 2}].
proceedings.\textsuperscript{111} Canada only became involved when it requested an extension of the suspended declaration of invalidity.\textsuperscript{112} If Canada were to have intervened, then it would have had full party rights, including a right of appeal.\textsuperscript{113}

The absence of Canada in any of the substantive proceedings suggests something more than a desire to take no position in the matter. If Canada simply did not want to take a position, it could still have intervened to preserve its appeal rights and taken no position in the hearing.\textsuperscript{114} The fact that Canada did not intervene at all suggests that it was willing to accept the decision of the trial judge, regardless of the outcome. The fiscal cost of appealing the matter could not reasonably have been the basis for the federal government’s non-intervention since the potential costs of a ruling in Morton’s favour would have been well-understood to outweigh any costs of litigation. Indeed, the result of the Morton ruling is that it currently costs the federal government an extra $8-8.5 million a year to administer its new aquaculture responsibilities in British Columbia.\textsuperscript{115}

Between March 2009 and March 2010, DFO created draft federal regulations to replace the invalid British Columbia laws. DFO initiated a consultation process in which a number of conservation, First Nation, industry, and commercial fishing groups attended workshops and made submissions.\textsuperscript{116} Following this process, DFO adopted a submission that the new regulations allow for the use of on-site observers to monitor activity.\textsuperscript{117} However, it did not adopt a request for the public reporting of environmental data

\textsuperscript{111} See \textit{Constitutional Question Act}, RSBC 1996, c 68, s 8(2) (this section requires that the Attorney General in right of Canada is given notice of constitutional challenges).
\textsuperscript{112} See \textit{Morton No 2, supra} note 110.
\textsuperscript{113} See \textit{Constitutional Question Act, supra} note 111, s 8(6)-(7).
\textsuperscript{114} See \textit{ibid}.
\textsuperscript{116} See \textit{ibid}.
\textsuperscript{117} See \textit{ibid}; \textit{Fishery (General) Regulations}, SOR/93-53, s. 39(3)-(5).
associated with aquaculture sites.\textsuperscript{118} On July 10, 2010, DFO released its draft regulations.\textsuperscript{119} They were sharply criticized by environmental groups.\textsuperscript{120} DFO held another round of consultations and the finalized regulations, the \textit{Pacific Aquaculture Regulations},\textsuperscript{121} came into force on December 18, 2010. They were largely the same as the draft regulations.\textsuperscript{122} Despite the ruling in \textit{Morton} declaring regulation of aquaculture a federal responsibility, the \textit{Pacific Aquaculture Regulations} were limited to British Columbia and the federal government did not enact corresponding regulations for the other provinces.\textsuperscript{123}

Under the \textit{Pacific Aquaculture Regulations} the federal government regulates aquaculture in British Columbia through the conditions of the licence. The regulations themselves only require aquaculturists to obtain a licence and produce it to a fishery officer upon request. The requirements regarding effects on wild fish are confined to the conditions of the licence which include such diverse matters as stock density, escapees, feed, and record keeping.\textsuperscript{124} This regulatory scheme is unlike any provincial scheme before it. While the provincial aquaculture schemes included obligations in the licence conditions,\textsuperscript{125} the

\textsuperscript{118} See Canada Gazette, “Pacific Aquaculture Regulations Regulatory Impact Analysis Statement”, \textit{supra} note 115.

\textsuperscript{119} See \textit{ibid}.

\textsuperscript{120} See e.g. Save Our Salmon, “Background on the draft Pacific Aquaculture Regulations” online: Save Our Salmon <http://www.saveoursalmon.ca>.

\textsuperscript{121} \textit{Supra} note 1, s 14.

\textsuperscript{122} With the exception of deleterious substance regulation under s. 36 of the federal \textit{Fisheries Act}, an issue which I address in Chapter 5.

\textsuperscript{123} \textit{Supra} note 1, s 2.

\textsuperscript{124} Department of Fisheries and Oceans, “Finfish and Aquaculture Licensing in BC”, online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca> [DFO, “Finfish and Aquaculture Licensing in BC”].

\textsuperscript{125} \textit{Fisheries and Coastal Resources Act}, SNS 1996, c 25, s 52-56; \textit{Aquaculture Act}, RSNL 1990, c A-13, s 4; \textit{Aquaculture Act}, RSNB 2011, c 112, s 15; \textit{Fisheries Act}, RSBC 1996, c 149, s 16(d).
majority of rights and obligations, such as property rights\footnote{Fisheries and Coastal Resources Act, SNS 1996, c 25, s 60; Aquaculture Act, RSNL 1990, c A-13, s 60; Aquaculture Act, RSNB 2011, c 112, s 22.} or reporting requirements,\footnote{Aquaculture Act, RSNB 2011, c 112, s 23-25; Aquaculture Regulation, BC Reg 78/2002, s 4; Aquaculture Licence and Lease Regulations, NS Reg 15/2000, s 5.} were in a statute or regulation.

Under the current regime, an aquaculturist in British Columbia must obtain a land tenure lease from the province to anchor the net-pen site to the seafloor.\footnote{See Ministry of Forests, “Lands and Natural Resource Operations, Land Use Operational Policy: Aquaculture” (26 May 26 2011) at 12, online: Ministry of Forests <http://www.for.gov.bc.ca>.} The aquaculturist must also apply to the federal government for an aquaculture licence under the \textit{Pacific Aquaculture Regulations}. This application is initially screened for completeness by an interagency review team that typically contains representation from the federal fisheries, environment, and transport departments.\footnote{See \textit{ibid} at 13.} After this initial screening, DFO reviews the application for more substantive criteria including:

- Fish habitat: benthic habitat, water quality, algae and primary production;
- Fish resources: wild fish populations and population health including finfish, marine mammals, sharks, invertebrate populations;
- Species at risk;
- Ecosystem effects per departmental guidance;
- Wild fishery activities; and
- First Nations use of land and resources for traditional purposes as well as other matters.\footnote{See \textit{ibid} at 13.}

After taking regulatory control in December 2010, DFO issued licences to all aquaculturists who had a valid licence under the previous provincial scheme\footnote{See Cohen, “Cohen Commission Final Report Volume 1”, \textit{supra} note 96 at 400. See also Ministry of Forests, “Lands and Natural Resource Operations, Land Use Operational Policy: Aquaculture” \textit{supra} note 182 at 9.} including 123 salmon farms and 439 shellfish farms.\footnote{See \textit{ibid}; DFO, “Finfish Aquaculture Licensing in BC”, \textit{supra} note 124; Department of Fisheries and Oceans, “Shellfish Aquaculture Licensing in BC” online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca>.} Licences may be issued for nine year periods,
but currently the DFO only issues one-year licences. Each licence is a two-page document that specifies the licence holder, the location of the farm, the farmed species, and the maximum allowable biomass. The licence conditions are attached. A template set of licence conditions is posted to the DFO website. It is an approximately 90 page document with appendices that regulates fish quantity, fish transfer, fish containment, fish health, records, reporting, escapees, sea lice, predator management, incidental catch, water and seafloor pollution, boats and structure lighting. Attached to the conditions is a 12 page “Salmonid Health Management Plan”. This management plan sets out best practices to minimize fish disease and stress. A condition of the licence requires compliance with the management plan.

Although Morton’s goal in the constitutional litigation was to halt or reverse salmon farming in British Columbia, salmon farming increased under the new regulations in British Columbia from approximately 68,000 tonnes in 2009 to almost 75,000 tonnes in 2011. It would be Canadian Prime Minister, Stephen Harper, who would indirectly stop all new aquaculture licences in British Columbia. In the summer of 2009, the Fraser River

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135 See ibid.
136 See ibid.
137 See ibid.
138 See ibid.
139 See ibid.
141 Department of Fisheries and Oceans, “Production Quantities and Values – Aquaculture” online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca>.
sockeye salmon return was the lowest return in 50 years.\(^{142}\) This was the third consecutive year that DFO closed the Fraser River sockeye fishery because of low returns.\(^{143}\) To some, these declines signalled the end of Fraser River sockeye.\(^{144}\) To make matters worse, despite decades of Fraser River sockeye management and science, the cause of this decline was almost completely unknown.\(^{145}\) The pre-season estimate for the 2009 Fraser River sockeye return was approximately 10 million fish; fewer than one million returned.\(^{146}\) In response, on November 5, 2009 the Governor General in Council, by recommendation of Prime Minister Harper,\(^{147}\) created the Cohen Commission pursuant to the \textit{Inquiries Act}\(^{148}\) and appointed the Honourable Justice Bruce Cohen of the British Columbia Supreme Court as Commissioner\(^{149}\) of a public inquiry into the decline of sockeye salmon in the Fraser River.\(^{150}\) The purpose of the Commission was to investigate the “causes of the decline of the Fraser River sockeye” and to make recommendations for its sustainability.\(^{151}\) It was limited to the Fraser River sockeye population and was also limited in the types of causes


\(^{143}\) See \textit{ibid}.

\(^{144}\) See \textit{ibid}.

\(^{145}\) See \textit{ibid}.

\(^{146}\) See \textit{ibid} at 13.


\(^{148}\) RSC, 1985, c I-11, ss 2-5, 11.

\(^{149}\) \textit{See Order in Council, supra note 147} (To aide in his inquiry, the Commissioner hired the following as his staff: Brian J. Wallace Q.C., Senior Commission Counsel; David A. Levy, Consultant, Fisheries Research; Keith Hamilton Q.C., Commission Policy Counsel; Wendy Baker Q.C., Associate Commission Counsel; Brock Martland, Associate Commission Counsel; Patrick McGowan, Associate Commission Counsel; Meg Gaily, Research Counsel; Lara Tessaro, Junior Commission Counsel; Kathy Grant, Junior Commission Counsel; Maia Tsurumi, Junior Commission Counsel; Jennifer Chan, Junior Commission Counsel; Patricia Woodruff, Fisheries Research Assistant).

\(^{150}\) See \textit{ibid}.

\(^{151}\) See \textit{ibid}.
of decline that it could investigate. In particular, the Commission was mandated to inquire into the relative effects of the:

- policies and practices of the Department of Fisheries and Oceans;
- environmental changes in the Fraser River and the marine environment;
- aquaculture;
- predators;
- diseases;
- water temperature;
- current state of Fraser River sockeye salmon stocks;
- long term projections for the Fraser River sockeye stocks;
- finding of prior reports and investigations; and
- other factors that may have affected the ability of sockeye salmon to reach traditional spawning grounds or reach the ocean.

The Cohen Commission was different from earlier commissions into the British Columbia salmon fisheries in that the Commission could inquire into all aspects, policies and practices of the DFO. To investigate the causes of decline and devise recommendations, the Commission heard evidence through: (1) testimony in a Vancouver courtroom; (2) the production of documents; (3) the review of previous commission reports; (4) the use of the Commission’s own scientists and experts; and (5) public submissions and workshops in which the commissioner travelled around the province.

The Commissioner granted standing to 21 participants to represent 53 individuals and

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152 See ibid.
organizations to participate in the evidentiary hearings.\textsuperscript{157} On June 15, 2010, the Commission began hearings and they continued until February 7, 2012. The participants introduced documents and proposed and examined witnesses.\textsuperscript{158} Overall there were 127 days of testimonial evidence and 2147 exhibits.\textsuperscript{159} The Commission itself produced 21 policy reports, 16 technical reports and five status reports.\textsuperscript{160} On October 29, 2012, the Commission released a three-volume, 1,191 page report.\textsuperscript{161}

While the final report did not identify any single cause for the decline of Fraser River sockeye, it made controversial factual findings. Contrary to the position taken by Morton and many conservation groups, the Commission found that sea lice likely have a relatively minor deleterious effect on Fraser River sockeye.\textsuperscript{162} The Commission also found that escapees, wastes and chemicals were unlikely to have a significant impact on Fraser River sockeye.\textsuperscript{163} Overall, the Commissioner was more concerned about the lack of reliable knowledge about the potential for the spread of disease and the cumulative effects of the

\textsuperscript{157} *Rules of Procedure*, supra note 155 (The 53 individuals and groups were: Cheam Indian Band; Conservation Coalition; Carrier Sekani Tribal Council; Stó:lō Tribal Council; Adams Lake Indian Band; Te’mexw Treaty Association; Area D Salmon Gillnet Association; Maa-Nulth Treaty Society; Tsawwassen First Nation; Cowichan Tribes; Chemainus First Nation; Musgarnagw Tswatineuk Tribal Council; Hwlitsum First Nation; Laich-Kwil-Tach Treaty Society; Musqueam Indian Band; First Nations Fisheries Council; Southern Area (E) Gillnetters Assn.; B.C. Fisheries Survival Coalition; B.C. Wildlife Federation; B.C. Drift Fishers Federation; Coalition of Douglas Treaty First Nations; Council of Haida Nation; Alexandra Morton; Raincoast Research Society; Pacific Coast Wild Salmon Society; David Suzuki Foundation; Heiltsuk Tribal Council; Aboriginal Aquaculture Association; Métis Nation British Columbia; Seafood Producers Association of B.C.; Area B Harvest Committee; West Coast Trollers Area G Association; United Fishermen and Allied Workers’ Union local of CAW; B.C. Salmon Farmers Association).

\textsuperscript{158} See *ibid*, Rule 18, Rule 55-57 (A witness could have their own counsel and the cross-examination of the participant may be limited. Testimony can also be given as a panel pursuant to Rule 63).


\textsuperscript{160} See *ibid*.


\textsuperscript{162} See *ibid* at 113.

\textsuperscript{163} *Ibid*. 

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farms. Given these concerns and the application of the precautionary principle, the Commission recommended a moratorium on new salmon farms until 2020 so further research could be done into the potential risk of disease to Fraser River sockeye.\footnote{See Cohen, “Cohen Commission Final Report Volume 3”, supra note 153 at 25.} If in the interim the Minister determined that salmon farms pose a risk of serious harm to Fraser River sockeye, the Commission recommended closing the salmon farms around the Discovery Islands which lie on the migratory route of Fraser River sockeye.\footnote{See ibid at 26.} Furthermore, if by 2020 the Minister were unable to conclude that salmon farms only pose a minimal risk to Fraser River sockeye, the Commissioner again recommended the closure of those farms.\footnote{See ibid.} The Commissioner also found that DFO was in a potential conflict of interest because it had a mandate to protect wild fish but also to promote aquaculture.\footnote{See ibid at 12.} The Commissioner found there was a risk that DFO may promote the salmon farming industry to the detriment of wild salmon. As a result, he recommended that DFO should remove as a mandate “the promotion of salmon farming as an industry and farmed salmon as a product”.\footnote{See ibid.}

DFO has not issued salmon aquaculture licences to additional sites in British Columbia since Commissioner Cohen released his final report. However, salmon farming, and aquaculture in general, remains a healthy industry in Canada. In fact, the quantity of salmon produced by the current licence holders has continued to grow.\footnote{Department of Fisheries and Oceans, “Aquaculture: Production Quantities and Values” online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca>.} Shellfish aquaculture also continues to grow on both coasts.\footnote{See ibid.} In 2011, Canada produced 102,064

\footnote{Department of Fisheries and Oceans, “Aquaculture: Production Quantities and Values” online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca>.}
tonnes of salmon, 38,646 tonnes of shellfish, and 6,511 tonnes of trout for a total value of almost one billion dollars.\(^{171}\)

Despite the growth of aquaculture, there remain two persistent foundational problems. First, provincial aquaculture regulations outside of British Columbia are potentially unconstitutional. Hinkson J’s decision in *Morton* is not binding on other provinces but his reasoning may well apply to similar regulatory regimes. At a minimum, the regimes regulating net-pen aquaculture are on shaky constitutional ground. As a result, there is considerable uncertainty, which creates difficulties in a capital intensive industry that is dependent on investment. Although the *Morton* decision applied only to net-pen salmon aquaculture, the reasoning in *Morton* also creates uncertainty regarding the province’s jurisdiction to regulate other forms of aquaculture that were previously thought to stand firmly within provincial jurisdiction.\(^{172}\) Given the renewed interest in on-land and tidal closed containment aquaculture this uncertainty is particularly problematic.\(^{173}\) Chapters 4 and 5 explain the principles that define the division of powers in the aquaculture context and apply those principles to aquaculture laws across Canada to provide a constitutional roadmap for the future. Chapter 7 applies the constitutional principles developed in chapters 4 and 5 to alternative forms of aquaculture such as on-land and closed containment systems.

Second, environmental standards for aquaculture sites are inconsistent. Escapee and disease regulations vary in stringency from province to province. The *Pacific Aquaculture*
Regulations in British Columbia place the rules for the aquaculturist in the licence conditions whereas in the Atlantic provinces many of the rules are contained directly in the regulation. Furthermore, the *Pacific Aquaculture Regulations* permit the release of deleterious substances into the ocean despite that such releases are prohibited by the *Fisheries Act*. I discuss the inconsistency of escapee and disease regulations in chapters 4 and 5 and I identify environmental flaws in the *Pacific Aquaculture Regulations* in chapter 8.
Chapter 3: Net-Pen Aquaculture and Morton v British Columbia (Minister of Agriculture and Lands)

In this chapter, I first discuss how net-pen aquaculture sites operate and then I summarize the reasoning and conclusions in the Morton decision.

3.1 A Tidal Net-Pen Aquaculture Site

Tidal net-pen aquaculture is one method used for raising Atlantic and Pacific salmon.1 The production of salmon begins with a brood stock of salmon from a previous generation of cultured salmon or from imported eggs.2 The eggs from the brood stock (or the imported eggs) are fertilized and grow into “smolt” salmon in land-based freshwater containers.3 Smolts are typically between 60-100 grams.4 In these containers, the aquaculturist controls the temperature, water composition, and feed.5 Approximately one year after fertilization, the aquaculturist transfers the smolts to tidal net-pen sites using a boat.6

A net-pen site typically consists of an array of ten to twenty submerged nets containing salmon. The nets are made of resilient material to protect against predators and escapees.7 The nets themselves do not touch the seafloor but they are anchored to the seafloor along with the entire net-pen site.8 The nets are sufficiently permeable to allow sea water to flow through it and to allow wastes to exit. Aquaculturists prefer tidal bays and

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2 See ibid at 36.
3 See ibid at 26, 37.
4 See ibid at 37.
5 See Beveridge, supra note 1.
7 See e.g. Department of Fisheries and Oceans, “Finfish and Aquaculture Licensing in BC”, online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca> [DFO, “Finfish and Aquaculture Licensing in BC”] (Licence conditions require a minimum level of net strength).
8 See Beveridge, supra note 1.
archipelagos that are protected from swells, but also where there are deep, cold, steady flows of clean saltwater. The salmon are fed compressed pellets of fish meal, vegetable oils, vitamins and minerals. They are also given parasite treatments and vaccines as needed. Antibiotics are seldom used now because of advances in fish husbandry. Fish are fed by a mechanical “sprinkler” or by hand.

Tidal net-pen aquaculturists commonly raise over 400,000 salmon at a single site. Once the salmon reach 4-5 kilograms in weight, which takes between 14-24 months, the fish are harvested by tying up a vessel next to the net-pen and either using a vacuum tube to suck the salmon onto the vessel or by pulling up the net into the vessel. The harvesting vessel takes the salmon to a processing plant where they are gutted and cleaned. Some salmon may be filleted before sale. Canada exports over 90% of its farmed Atlantic salmon to the United States. The total process from egg to distribution takes between 24-40 months.

3.2 Morton v British Columbia (Minister of Agriculture and Lands)

Before 2009, only the provinces enacted specific legislation for tidal net-pen aquaculture. They leased the seabed and regulated the core aquaculture harms such as escapees, disease,
and seafloor pollution. The federal government limited its regulation of aquaculture to managing the international and interprovincial transfer of salmon.

In 2009, Hinkson J declared the core of British Columbia’s aquaculture laws *ultra vires* in *Morton v British Columbia (Minister of Agriculture and Lands).*18 Alexandra Morton, the petitioner, was a marine biologist and an aquaculture opponent.19 Originally from the United States, she later moved to the Broughton Archipelago and began studying the orca whale population.20 When the orca population left, she shifted her focus to the effects of aquaculture on wild salmon.21 She published a number of papers that suggested open-cage salmon aquaculture increased parasite and disease infection rates in wild salmon leading to higher mortality.22 Her studies triggered an active debate in the scientific community supported by contrary findings by other scientists.23

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18 2009 BCSC 136, 92 BCLR (4th) 314 [Morton].
20 See ibid.
21 See ibid.
Along with two commercial fishing associations, a conservation society and an eco-tourism outfit, Morton brought a petition in British Columbia Supreme Court for a declaration that British Columbia’s core aquaculture laws and regulations were invalid and of no force or effect pursuant to s. 52 of the Constitution Act. In particular, she challenged British Columbia’s laws that:

1. regulated escapee issues such as escapee reporting, record keeping, inspections, and aquaculture cages (pursuant to the Aquaculture Regulation);  
2. regulated seafloor pollution (pursuant to the Finfish Aquaculture Waste Control Regulation);  
3. limited the nuisance liability of a licensed aquaculture operation (pursuant to sections 1(h) and 2(1) of the Farm Practices Protection (Right to Farm) Act);  
4. required all net-pen aquaculture sites to acquire a licence under the British Columbia Fisheries Act (pursuant to ss. 13(5), 14 of the Fisheries Act); and  
5. gave the Lieutenant Governor in Council the power to make regulations for “safe and orderly aquaculture” (pursuant to s. 26(2)(a) of the Fisheries Act).

She also sought an order prohibiting the renewal of certain aquaculture tenures for Marine Harvest Canada Inc. The respondents were the province of British Columbia and Marine Harvest Canada Inc. Marine Harvest Inc. is the largest aquaculture tenure holder in

24 See Morton, supra note 18(The petitioners were Pacific Coast Wild Salmon Society, Wilderness Tourism Association, Southern Area (E) Gillnetters Association, and Fishing Vessel Owners’ Association Of British Columbia).  
27 RSBC 1996, c 131.  
28 RSBC 1996, c 149.  
29 Ibid.  
30 See Morton, supra note 18 at para 2.
British Columbia and one of the largest in the world. Morton’s strategy in the constitutional challenge was to stop or reverse the growth of salmon aquaculture sites in British Columbia.

Morton argued that Parliament had exclusive jurisdiction to regulate aquaculture by virtue of s. 91(12) of the Constitution Act. The Constitution Act first assigns a number of specific powers to the provincial legislatures including an expansive power over matters of “a local or private nature”. The Constitution Act then provides Parliament the power to legislate with respect to all matters not specified as provincial. For greater certainty, s. 91 sets out specific matters within Parliament’s legislative power. Section 91 states that these federal matters are within the “... exclusive Legislative Authority of the Parliament of Canada”. One of those exclusively federal matters is s. 91(12), the power to legislate regarding “Sea Coast and Inland Fisheries” (the “federal fisheries power”). The Constitution Act explicitly adds the interpretative guide that the specific federal matters identified in s. 91 are deemed not to come within the provinces’ power to legislate matters of “a local or private nature”. In this way, the Constitution Act carves out a number of powers for Parliament that could otherwise be considered local or private in nature.

British Columbia argued that the authority to regulate aquaculture was a provincial matter pursuant to ss. 92(13) and 92(16) of the Constitution Act. Section 92(13) gives the
province the authority to legislate “exclusively” regarding “Property and Civil Rights in the Province”. ³⁹ Section 92(16) gives the province the authority to legislate “exclusively” regarding “Generally all Matters of a merely local or private Nature in the Province”. ⁴⁰

The federal government did not intervene in Morton and did not present a public position on the matter. DFO published a document in 2008 entitled “Legislative and Regulatory Review of Aquaculture in Canada” and under the section heading “Constitutional and Legal Authority for Aquaculture” it stated:

In order to maintain the solicitor/client privilege related to the legal advice provided by the Department of Justice, this part of the document will remain confidential.

The fact remains that aquaculture activities in Canada cannot be regulated solely by either the federal or the provincial authorities. The legislative and regulatory framework whereby aquaculture is regulated and administered will continue to involve both levels of government and its effectiveness will require collaboration between them. ⁴¹

Determining whether a provincial or federal law relates to a class of power outside its jurisdiction is an elusive exercise. The Constitution Act divides the heads of power into general categories rather than particular activities. There are a number of doctrines to assist in this exercise. Four of these doctrines are relevant to aquaculture legislation.

First, the central technique created by the courts to assess the validity of a law is the “pith and substance” doctrine. Morton argued that the pith and substance of British Columbia’s aquaculture laws was the “regulation and management of an ocean fishery and the creation of property rights in that fishery, and to specified areas of ocean waters, areas

³⁹ See ibid, s 92(13).
⁴⁰ See ibid, s 92(16).
⁴¹ See Department of Fisheries and Oceans, “Legislative and Regulatory Review of Aquaculture in Canada” online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca>.
of exclusive federal jurisdiction under s. 91(12) ...”  Hinkson J summarized the pith and substance doctrine citing Binnie and Lebel JJ of the Supreme Court of Canada in *Canadian Western Bank v Alberta*:

This initial analysis consists of an inquiry into the true nature of the law in question for the purpose of identifying the “matter” to which it essentially relates. As Rand J. put it in *Saumur v. City of Québec*, [1953] 2 S.C.R. 299, at p. 333:

... the courts must be able from its language and its relevant circumstances, to attribute an enactment to a matter *in relation to which* the legislature acting has been empowered to make laws. That principle inheres in the nature of federalism ... [Emphasis in original.]

To determine the pith and substance, two aspects of the law must be examined: the purpose of the enacting body and the legal effect of the law (*Reference re Firearms Act*, at para. 16). To assess the purpose, the courts may consider both intrinsic evidence, such as the legislation’s preamble or purpose clauses, and extrinsic evidence, such as Hansard or minutes of parliamentary debates. In so doing, they must nevertheless seek to ascertain the *true* purpose of the legislation, as opposed to its mere stated or apparent purpose (*Attorney-General for Ontario v. Reciprocal Insurers*, [1924] A.C. 328 (P.C.), at p. 337). Equally, the courts may take into account the effects of the legislation. For example, in *Attorney-General for Alberta v. Attorney-General for Canada*, [1939] A.C. 117 ("*Alberta Banks*"), the Privy Council held a provincial statute levying a tax on banks to be invalid on the basis that its effects on banks were so great that its true purpose could not be (as the province argued) the raising of money by levying a tax (in which case it would have been *intra vires*), but was rather the regulation of banking (which rendered it *ultra vires*, and thus invalid).  

A law that is in pith and substance in relation to a valid head of power will be valid despite that it may significantly affect a head of power outside its jurisdiction:

legislation whose pith and substance falls within the jurisdiction of the legislature that enacted it may, at least to a certain extent, affect matters beyond the legislature’s jurisdiction without necessarily being unconstitutional. At this stage of the analysis of constitutionality, the “dominant purpose” of the legislation is still decisive. Its secondary

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42 Morton, supra note 18 at para 99.
43 Ibid at para 112 citing *Canadian Western Bank v Alberta*, 2007 SCC 22, [2007] 2 SCR 3 [Canadian Western Bank].
objectives and effects have no impact on its constitutionality: “merely incidental effects will not disturb the constitutionality of an otherwise *intra vires* law” ... By “incidental” is meant effects that may be of significant practical importance but are collateral and secondary to the mandate of the enacting legislature ... Such incidental intrusions into matters subject to the other level of government’s authority are proper and to be expected44

Second, the double aspect doctrine assists the court where the pith and substance of the impugned law has both a federal aspect and a provincial aspect. The double aspect doctrine stipulates that, if the federal and provincial aspects of the impugned law are “of roughly equivalent importance”, both Parliament and the provincial legislatures can validly enact the impugned law.45 An example of a law that has a double aspect is insider trading laws for federally incorporated companies.46 Such laws have both a federal aspect (regulation of federal companies) and provincial aspect (regulation of securities) of equal importance. Therefore, both Parliament and the provincial legislatures can enact insider trading laws that apply to federally incorporated companies.

Third, the interjurisdictional immunity doctrine stipulates that the “‘classes of subject’ in ss. 91 and 92 must be assured a ‘basic, minimum and unassailable content’ immune from the application of legislation enacted by the other level of government.”47 Where one level of government encroaches on the “core” area of another, the result of the court’s application of the interjurisdictional immunity doctrine is a finding of “inapplicability” rather than “invalidity”.48 That is, rather than striking down the impugned

44 See Canadian Western Bank, *ibid* at para 28.
46 See *Multiple Access Ltd, supra* note 45.
47 *Canadian Western Bank, supra* note 43 at para 33 citing *Bell Canada v Quebec (Commission de la santé et de la sécurité du travail)*, [1988] 1 SCR 749 at 839.
48 See Robin Elliot, “Interjurisdictional Immunity after Canadian Western Bank and Lafarge Canada, Inc.: The Supreme Court Muddies the Doctrinal Waters – Again”, (2008) 43 SCLR (2d) 433 (“The purpose of the doctrine ... is not to protect particular entities, or particular kinds of ‘right-holders’, from legislation that they would like to be able to ignore. It is to protect the principle of exclusivity of legislative jurisdiction. If that is
law, the courts read down the law such that it no longer applies in the impugned way. For example, in *MacKay v The Queen*, a majority of the Supreme Court of Canada held that a municipal by-law (that only allowed the use of real estate, caution or physician signs on residential properties) was inapplicable to federal election signs.\(^4\)

Finally, the paramountcy doctrine stipulates that “when the operational effects of provincial legislation are incompatible with federal legislation, the federal legislation must prevail and the provincial legislation is rendered inoperative to the extent of the incompatibility.”\(^5\) In contrast to “invalidity” or “inapplicability”, where a law is found to be “inoperative” it is only ineffective for as long as the federal law exists.\(^6\) In the environmental context, generally, the existence of different pollution tolerances in federal and provincial regulations does not result in incompatibility because a person can comply with both standards.\(^7\) However, incompatibility may nonetheless exist where a provincial law frustrates the purpose of a federal law, even where compliance with both laws is possible.\(^8\)

After summarizing these doctrines, Hinkson J also summarized the scope of the federal fisheries power as established in the jurisprudence. The federal fisheries power is the power to regulate the effects on the fisheries for the benefit of all Canadians.\(^9\) To

\(^3\) *McKay v The Queen*, [1965] SCR 798.

\(^4\) See Canadian Western Bank, supra note 43 at para 69.


further the public interest, Parliament has a broad power to regulate effects on the fisheries to balance environmental, economic and social goals. Therefore, Parliament may legislate for the preservation of the fisheries. Examples of such regulations are closed times, prohibitions of certain fishing techniques, limitations on the sale of fish, pollution limits, and regulations that prohibit works that harm fish habitat. Such regulations work in the environmental, economic and social interest as they secure the long-term sustainability of the fisheries. Parliament may also regulate access to the fisheries to further purely economic or social goals in the national interest. For example, Parliament may grant exclusive access to a fishery to sport fishers to maximize economic gain from the fishery even if such access may harm the fishery in an environmental sense. Similarly, Parliament may also prohibit the harvest of a species in response to international pressure in order to keep international markets open for other fish products.

While the federal fisheries power is a broad power, it does not grant property rights to the federal government - it only grants legislative power. As a result, the federal government cannot use its fisheries power for the purpose of granting property rights to

55 See ibid at para 41.
56 See Robertson, supra note 54 at 120-24 [Robertson]; Attorney-General for British Columbia v Attorney-General for Canada (No. 2), [1913] JCJ No 2 at para 17, 15 DLR 308 at 314-318, [1914] AC 153 (PC) [BC Fisheries Reference].
57 See ibid at para 17 (regarding close times and use of certain techniques). See also Robertson, supra note 54; Ward, supra note 54 at para 40 (regarding sale of fish); R v N.T.C. Smokehouse Ltd, [1993] 5 WWR 542, 80 BCLR (2d) 158 (BCCA); R v Northwest Falling Contractors Ltd, [1980] 2 SCR 292 [Northwest Falling] (regarding pollution); R v Blackham’s Construction Ltd, [1980] BCJ No 1265, 10 CELR 115 (BCCA) (regarding harm to habitat).
58 See Gulf Trollers Assn v Canada (Minister of Fisheries and Oceans), [1987] 2 FC 93, [1986] FCJ No 705 (FCA); Ward, supra note 54 at paras 39-41.
59 See ibid.
60 See A.-G. Can v A.-G. Ont. (Fisheries) [1898] AC 700 at para 11-15 (PC) [Ontario Fisheries Reference]; Robertson, supra note 54 at 120-24. The exception to this proposition is where the fish are located on federal land such as a national park or lands granted by the province to the federal government. In such cases, the federal government has both regulatory power and property rights in the fish: Ibid.
individuals unless the federal government can show such a grant is, in pith and substance, in relation to the preservation of the fishery for the benefit of all Canadians.61

The federal fisheries power is further limited to regulating effects on the fishery. It is not a power to regulate all aspects of the fishery. The provinces have exclusive jurisdiction over property and civil rights in the province. Therefore, Parliament cannot regulate matters that involve the fishery but are in pith and substance in relation to property and civil rights. For example, Parliament cannot regulate labour relations in the fisheries62 or the “business” aspects of commercial fishing.63 Furthermore, as discussed in detail in the next chapter, Parliament cannot regulate the processing of fish into marketable product.64

Moreover, the courts have given the provinces wide scope to pass laws that significantly affect the fisheries as long as they have a valid provincial purpose. The courts have held that fishing vessels are not generally federal undertakings either with respect to the federal fisheries power or with respect to Parliament’s power over navigation and shipping.65 The provinces can generally enact occupational health and safety regulations for fishing vessels that travel inter-provincially and into international waters.66 The provinces may also pass regulations that create close times, fishing gear restrictions, pollution limits and other preservation measures for non-tidal fisheries pursuant to the province’s power

61 See ibid; Ontario Fisheries Reference, supra note 60 at paras 11-15; Gerard V La Forest, Water Law in Canada: The Atlantic Provinces (Ottawa: Public Works, 1972) at 38-39 [La Forest, “Water Law in Canada”].
62 See Ward, supra note 54 at para 46; British Columbia Packers Ltd v Canada (Labour Relations Board), [1976] 1 FC 375 at para 14 (CA).
63 See Ward, supra note 54 at paras 43, 36; 504578 Ontario Ltd v Great Lake Fishermen and Allied Workers’ Union, [1990] OJ No 39 (CA).
66 See ibid; Jim Pattison, supra note 65.
over property and civil rights. Indeed, other than Morton, the only case that struck down a provincial law on the basis that it was an exclusive s. 91(12) matter was Ontario Fisheries Reference in which Ontario passed regulations that regulated the inland fishery through close times and gear restrictions. The courts have held that even this decision has been significantly circumscribed by later Supreme Court of Canada decisions regarding the ambit of provincial power in this area. The only remaining bright line provincial boundary in the case law is that the provinces cannot pass laws that are in pith and substance in relation to regulating effects on tidal fisheries in the public interest.

Hinkson J began his analysis with the heading “Pith and Substance”. However, under this heading he did not determine the pith and substance of the impugned laws. Nor is this determination made anywhere else in the decision. Rather, Hinkson J uses this section to determine whether or not net-pen aquaculture is a “fishery” and he concludes that it is. Based on this conclusion, he finds that net-pen aquaculture is a matter within s. 91(12). Hinkson J equates this conclusion to a finding that the impugned laws are also in relation to s. 91(12). He appears to proceed on the basis that the impugned laws, with the exception of ss. 13(5) and 14 of the Fisheries Act, are dominantly in relation to “the management and regulation of fisheries” where “fisheries” in this sense means the net-pen

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68 Supra note 60.
69 See Custer, supra note 67; Peralta SCC, supra note 67; Patey, supra note 67.
70 See R v Breault, 2001 NBCA 16, 198 DLR (4th) 669 (dealing with provincial fishing regulations in tidal waters at para 40). See also Interprovincial Co-Operatives Ltd, supra note 67 (dealing with provincial water pollution laws affecting fish – although this case concerns interprovincial waters, rather than tidal waters, the point is made by both Pigeon J and Ritchie J that the provincial power to regulate pollution effects on the fisheries is in relation to inland fisheries owned by the province).
71 Morton, supra note 18 at para 128.
72 See ibid at para 161.
73 See ibid.
aquaculture fishery as he defined it.\textsuperscript{74} The remainder of the decision flows from the conclusion that net-pen aquaculture is a “fishery”. He finds that the province cannot justify the impugned laws on the basis of the property and civil rights power because this power “does not extend so far as to permit a Province the ‘right to pass any laws interfering with the regulation and protection of the fisheries’”.\textsuperscript{75} As a result, Hinkson J found the \textit{Finfish Aquaculture Waste Control Regulation} to be \textit{ultra vires} and he struck down the entire regulation.\textsuperscript{76} He also “read down” the \textit{Aquaculture Regulation}, s. 26(2)(a) of the \textit{Fisheries Act}, and ss. 1(h) and 2(1) of the \textit{Farm Practices (Right to Farm) Act} such that they only applied to marine plant aquaculture.\textsuperscript{77} The only impugned law he upheld was ss. 13(5) and 14 of the \textit{Fisheries Act}. He found that the dominant purpose of these latter two sections was to “produce revenue based on the licensing of the business of fishing” which is a valid provincial power under s. 92(9).\textsuperscript{78}

Hinkson J relied on four main interpretive tools to conclude that the term “fishery” as it is used in s. 91(12) includes net-pen aquaculture. First, he turned to dictionary definitions of the word “fishery”, which ranged from (1) the place where fish are “caught”\textsuperscript{79} or “taken”,\textsuperscript{80} (2) the place where fish “abound”;\textsuperscript{81} to (3) the place where fish are

\textsuperscript{74} See \textit{ibid} at para 190. See also \textit{ibid} at para 173.\textsuperscript{75} See \textit{ibid} at para 170 [emphasis added].\textsuperscript{76} See \textit{ibid} at para 197.\textsuperscript{77} See \textit{ibid} at para 196.\textsuperscript{78} See \textit{ibid} at para 172.\textsuperscript{79} See \textit{An American Dictionary of the English Language}, sub verbo “fishery”; \textit{Morton, supra} note 18 at para 139; \textit{Oxford English Dictionary Online}, 2d ed, sub verbo “fishery”; \textit{Morton, supra} note 18 at para 141; \textit{Shorter Oxford English Dictionary on Historical Principles}, 6th ed, sub verbo “fishery”; \textit{Morton, supra} note 18 at para 142; \textit{The Canadian Oxford Dictionary}, sub verbo “fishery”; \textit{Morton, supra} note 18 at para 145.\textsuperscript{80} \textit{A Complete and Universal English Dictionary}, sub verbo “fishery”; \textit{Morton, supra} note 18 at para 138.\textsuperscript{81} See \textit{ibid}.
“reared”.

A fishery is also defined as the “business” of catching fish. Hinkson J also noted there was a legal definition of “fishery”: “the right of fishing in certain waters.”

Hinkson J then turned to the “average Canadian’s understanding of the term ‘fishery’”. This analysis was contained in one paragraph:

I consider that the average Canadian’s understanding of the term “fishery” is also relevant, given the living tree aspect of Canadian constitutional interpretation and the recognition in the jurisprudence that the perceptions of “[t]he man on the Macdonald bus” are important: See Landry v. Cadeau, [1985] B.C.J. No. 1396 at para. 30 (S.C.) per Southin J., as she then was. In my view, the “man on the Macdonald bus” would conclude that a fish farm is a fishery.

The third interpretative tool was the definition of “fishery” in other statutes. Hinkson J relied on the federal Fisheries Act which defines a fishery as:

the area, locality, place or station in or on which a pound, seine, net, weir or other fishing appliance is used, set, placed or located, and the area, tract or stretch of water in or from which fish may be taken by the said pound, seine, net, weir or other fishing appliance, and also the pound, seine, net, weir, or other fishing appliance used in connection therewith …

Finally, Hinkson J referred to the uses of the word “fishery” in the case law. In Ward v Canada (Attorney General), citing its earlier decision in Reference re Certain Sections of the Fisheries Act, 1914, the Supreme Court of Canada defined “fishery” as “the right of catching fish in the sea, or in a particular stream of water”. In Reference re Certain Sections of the Fisheries Act, 1914, the Supreme Court of Canada also defined a
“fishery” as the “business, occupation or industry of catching fish or of taking other products of the sea or rivers from the water.” Hinkson J referred to the central theme of the federal fisheries power elaborated by McLachlin CJ in Ward as the “theme that the fisheries power refers to the resource.” In Ward, McLachlin CJ also cited Laskin CJ (as he then was) in Interprovincial Co-Operatives Ltd v The Queen in which he held that “the federal fisheries power ‘is concerned with the protection and preservation of fisheries as a public resource,’ extending even to the ‘suppression of an owner’s right of utilization’”. In Ward, after reviewing the various definitions of “fishery”, McLachlin CJ concluded that:

These cases put beyond doubt that the fisheries power includes not only conservation and protection, but also the general “regulation” of the fisheries, including their management and control. They recognize that “fisheries” under s. 91(12) of the Constitution Act, 1867 refers to the fisheries as a resource; “a source of national or provincial wealth” (Robertson, supra, at p. 121); a “common property resource” to be managed for the good of all Canadians (Comeau’s Sea Foods, supra, at para. 37). The fisheries resource includes the animals that inhabit the seas. But it also embraces commercial and economic interests, aboriginal rights and interests, and the public interest in sport and recreation.

After referring to these four interpretative tools, Hinkson J concluded that the fish in aquaculture farms constitute a “fishery”. He stated:

I am unable to conclude, as the respondents argue, that the activity of finfish aquaculture is an activity other than a fishery. The activity of fish farming involves the rearing of fish as the fish must reside in provincial waters until such time as they reach a sufficient age and size to be of commercial value. The farms vary in size, but on the evidence before me the cages containing the farm fish can occupy several hectares and hold several hundreds of thousands of fish. The farm fish are reared in areas previously frequented by “wild” fish. But for the finfish farms, the areas would still be frequented by “wild” fish, but the “wild” fish are prevented from doing so due to the presence of the cages in which the farm fish are reared.

89 Ibid.
90 Ward, supra note 54 at para 36; Morton, supra note 18 at para 151.
91 Supra note 67 at 495.
92 Ward, supra note 54 at para 41; Morton, supra note 18 at para 152.
While the ultimate harvesting of the fish is from within the cages where they are raised, the fish are nonetheless taken as “products of the sea”. It is also possible for fish to escape from these cages. The caged fish must ultimately be “caught”, in some manner in order to be harvested and sold, and caught in the areas previously available to the “wild” fish.

I conclude that the fish which are reared in finfish farms on the coast of British Columbia are either a part of the overall British Columbia Fishery or are a fishery unto themselves. In either case they fall under the jurisdiction of Parliament under s. 91(12) of the Constitution Act, 1867.93

Hinkson J’s conclusion appears to be based on four factors. First, Hinkson J harkened back to the fact that cultivated fish are “reared”. As noted earlier, some dictionaries included “rearing” in the definition of “fishery”.94 Second, the farms hold large numbers of fish, which connected to the definition of the place where fish “abound”.95 Third, the cultivated fish occupy water previously occupied by wild fish and, but for the cultivated fish, the wild fish would continue to occupy the water. Finally, the cultivated fish are “products of the sea”96 as they are raised there and must eventually be “caught”.97 Based on these factors, Hinkson J found that finfish aquaculture is a “fishery” such that it falls within the federal fisheries power.

Hinkson J rejected British Columbia’s argument that it could exercise jurisdiction over aquaculture through its power in regards to agriculture in s. 95 of the Constitution Act.98 Section 95 grants both Parliament and the provincial legislatures the power to create laws in relation to agriculture. Hinkson J rejected this argument because, in addition to the four factors above, Hinkson J drew a comparison between net-pen aquaculture and the wild lobster fishery. The wild lobster fishery utilizes the provincial seabed, but nonetheless is a

93 Ibid at paras 154-56.
94 See The Concise Oxford English Dictionary, supra note 82; Morton, supra note 18 at para 144; The Canadian Oxford Dictionary, supra note 79; Morton, supra note 18 at para 145.
95 See A Complete and Universal English Dictionary, supra note 79; Morton, supra note 18 at para 138.
96 Ibid at paras 154-56.
97 Ibid.
98 See Constitution Act, supra note 34, s 95.
federal responsibility. Similarly, Hinkson J noted that the 1912 Oyster Fisheries Agreement between the federal government and British Columbia granted British Columbia the authority to grant leases that give an aquaculturist the exclusive right to their cultured product. In Hinkson J’s view, since the federal government and British Columbia treated lobster fishing and oyster aquaculture as a purely federal matter that fell under the federal fisheries power, British Columbia could not argue that aquaculture fell under s. 95.

Hinkson J also rejected Marine Harvest Canada Inc.’s argument that the cultivated fish constitute a “private fishery” rather than a “public fishery” and as such are a matter of private property that falls within the provincial property and civil rights power. Hinkson J rejected this argument on the basis of the proposition in BC Fisheries Reference that a private fishery cannot be created in tidal waters in the absence of explicit federal legislation granting a private fishery.

By contrast to finfish aquaculture, Hinkson J declined to decide whether the cultivation of marine plants was ultra vires the province because the validity of marine plant aquaculture was not at issue. Therefore, the impugned sections and statutes were read down only to the extent they applied to finfish. Hinkson J also commented that the province had authority to grant land tenures to the seabed under the Land Act pursuant to the provincial power to manage its lands under s. 92(5) of the Constitution Act.

In sum, Hinkson J:

1. declared intra vires s. 13(5) and 14 of the British Columbia Fisheries Act;

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99 See Morton, supra note 18 at paras 175-77.
100 See ibid.
101 See ibid.
102 See ibid at para 159.
103 See ibid.
104 See ibid at para 180.
105 See ibid at paras 195-96.
106 See ibid at para 168.
2. declared ultra vires the Finfish Aquaculture Waste Control Regulation; and

3. read down, to the extent they apply to finfish: the Aquaculture Regulations, ss. 1(h) and 2(1) of the Farm Practices Protection (Right to Farm) Act, and s. 26(2)(a) of the British Columbia Fisheries Act.

Rather than strike down the invalid sections immediately, Hinkson J suspended the declaration of invalidity to allow the federal government time to fill the void.\(^\text{107}\) Because the status quo legislation remained in place, Hinkson J dismissed Morton’s challenge to Marine Harvest Canada Inc.’s licence renewals.\(^\text{108}\)

Marine Harvest Canada Inc. appealed the Morton decision on the narrow basis that Hinkson J erred in striking down the Farm Practices Protection (Right to Farm) Act.\(^\text{109}\) Rather than decide the issue, the Court of Appeal remitted the matter back to Hinkson J to clarify his ruling regarding the unconstitutionality of these particular provisions. Marine Harvest Canada Inc. argued that the Farm Practices Protection (Right to Farm) Act was in pith and substance a matter of tort law such that it fell within the provincial power over property and civil rights.\(^\text{110}\) Hinkson J rejected this argument and refused to consider the pith and substance of each law in isolation.\(^\text{111}\) He held that he could not consider the pith and substance of the impugned sections individually because they needed to be read in the context of aquaculture regulations as a whole. He held that the impugned sections in the Farm Practices Protection (Right to Farm) Act were “inextricably linked” to the province’s aquaculture regulation regime and that the pith and substance of the law was the “regulation

\(^{107}\) See ibid at para 200.

\(^{108}\) See ibid at paras 201-02.

\(^{109}\) See Morton v British Columbia (Ministry of Agriculture and Lands), 2009 BCCA 481, 97 BCLR (4th) 103.

\(^{110}\) See Morton v British Columbia (Agriculture and Lands), 2010 BCSC 100, 2 BCLR (5th) 306 [Morton No 2].

\(^{111}\) Ibid at para 56.
As such, Hinkson J maintained his position that net-pen aquaculture was a “fishery” and that the *Farm Practices Protection (Right to Farm) Act* was in relation to the federal fisheries power. In effect, Hinkson J treated net-pen aquaculture as a class of “fishery” such that the provinces could not validly regulate even the parts of it relating to nuisance torts. The following chapter identifies errors in the *Morton* decision and explains the scope of the federal fisheries power.

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112 *Ibid* at para 64.
Chapter 4: The Constitutionality of British Columbia’s Aquaculture Laws in Morton

4.1 Introduction

In this chapter, I critique the Morton decision. I divide this chapter into three sections. First, I argue that Hinkson J erred because he did not identify the pith and substance of each impugned section. Second, I argue that Hinkson J erred in finding that net-pen aquaculture is a “fishery” within the meaning of the federal fisheries power. I clarify the scope of the federal fisheries power in relation to the provincial power over property and civil rights. I also set out the property law rules relevant to aquaculture and explain that a net-pen aquaculturist does not “catch” fish or exercise the “right to fish”. Finally, I apply these concepts, and the pith and substance analysis, afresh to the areas of aquaculture regulation at issue in Morton: escapees, pollution, civil liability, and licensing. I conclude, for different reasons, that Hinkson J was correct to find the escapee regulations to be invalid and the licensing regulations to be valid. However, unlike Hinkson J, I find that the finfish seafloor pollution and civil liability laws are intra vires the province.

4.2 The Division of Powers Analysis

I respectfully disagree with the reasoning in the Morton decision. This disagreement is not merely academic. Although the Morton matter is concluded, the same challenge made in Morton could be made in any province on the east coast where aquaculture continues to be regulated by the provinces in a manner similar to the ultra vires British Columbia legislation. The matter may even arise again in British Columbia. Furthermore, there are eight other forms of aquaculture and the government’s jurisdiction over each of those forms
may be subject to constitutional challenge. As a result, there is a danger that the reasoning in *Morton* might be applied elsewhere.

The first error in the *Morton* decision is that Hinkson J did not determine the pith and substance of the impugned sections. Hinkson J’s rejection of this approach contravenes Supreme Court of Canada authority. A division of powers analysis must include an assessment of the purpose and effects of the impugned legislation:

The beginning of any division of powers analysis is a characterization of the impugned law to determine the head of power within which it falls. This process is commonly known as "pith and substance" analysis: see the comments of Lamer C.J. in *R. v. Swain*, [1991] 1 S.C.R. 933, at p. 998. By thus categorizing the impugned provision, one is able to determine whether the enacting legislature possesses the authority under the Constitution to do what it did. A pith and substance analysis looks at both (1) the purpose of the legislation as well as (2) its effect.¹

This approach has been reaffirmed by the Supreme Court of Canada repeatedly.² By contrast, Hinkson J did not determine the purpose or effects of the impugned laws. His analysis focused on whether net-pen aquaculture was a “fishery”. While this is no doubt an important inquiry, it does not solve the overall question of constitutionality.

A purpose and effect determination is essential because the question of constitutionality can only be solved by determining the purpose and effects of the impugned laws. As noted in the previous chapter, the federal fisheries power does not encompass matters that are in pith and substance in relation to property and civil rights, even if they involve fisheries. For example, although labour relations and fish processing

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¹ *Kitkatla Band v British Columbia (Minister of Small Business, Tourism and Culture)*, 2002 SCC 31 at paras 52-53, [2002] 2 SCR 146 [emphasis added]. See also *Canadian Western Bank v Alberta*, 2007 SCC 22, [2007] 2 SCR 3 [*Canadian Western Bank*].

are connected to the fisheries, they are nonetheless matters within provincial power. Therefore, even assuming that net-pen aquaculture is a “fishery”, the aquaculture law in question may be valid in relation to labour relations or the processing of cultured fish. Regardless of whether aquaculture is a “fishery”, a court must nonetheless ask “what does the impugned regulation do and why does it do it?”⁴ The relevant constitutional doctrines of pith and substance, double aspect doctrine, interjurisdictional immunity and paramountcy all require a determination of either the purpose or effects of a law, or both.

Even assuming that Hinkson J impliedly concluded that the pith and substance of the impugned laws was the “management and regulation of the ‘aquaculture fishery’”, this broad stroke characterization is not sufficient in light of the fact that the provinces are given significant scope to manage and regulate large aspects of the fisheries, including “things reasonably incidental to carrying on a fishing business, such as labour relations and disposition of the products of the business”.⁴ Hinkson J’s implied characterization does not identify what each regulation does and why. It does not identify the particular mischief that the regulation seeks to prevent. It “confuses the purpose of the legislation with the means used to carry out that purpose.”⁵ In fact, as discussed in more detail in the fourth section of this chapter, the escapee and pollution regulations are each “aquaculture regulations” but they each seek to prevent a different mischief, which creates a different constitutional outcome.

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⁵ Ibid at para 25.
Furthermore, aquaculture sites are not federal undertakings such that any provincial involvement in regulating aquaculture encroaches on a core federal power. Aquaculture sites are not federal undertakings either with respect to the federal fisheries power or Parliament’s power over navigation and shipping. Indeed, fishing vessels are not even federal undertakings in respect of either of these two powers. Aquaculture operations are conducted entirely within the boundaries of the province, the product is processed within the province and the workers are stationed in the province. Aquaculture sites are provincial undertakings and the province may validly regulate aspects of those undertakings.

In my view, the failure to follow the correct analytical procedure in *Morton* led to the wrong conclusions regarding the constitutionality of the impugned laws. As noted by W.R. Lederman:

> ... analytical reasoning is necessary to prepare the way for and to reveal the need of the value judgements that *are* in the end decisive. Good analytical jurisprudence isolates issues of form and reveals issues of substance in their true colours. If you can frame the right questions and put them in the right order, you are half way to the answers.7

The pith and substance analysis is critical because it triggers detailed consideration of the intention of the legislature that leads to a consideration of the specific wording of the law, the function of the law within the statutory scheme, the effects of the law, the Hansard, and the historical context in which the law was created. Even if Hinkson J had relied solely on the interjurisdictional immunity doctrine, this doctrine requires that the court at least identify the effects of the impugned law. While it may not matter the order in which

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6 Tidal fishing vessels that travel extraprovincially were found to be provincial undertakings such that the provinces could validly enforce its occupational health and safety regulations for fishing vessels: *Jim Pattison Enterprises Ltd v British Columbia (Workers’ Compensation Board)*, 2011 BCCA 35, 15 BCLR (5th) 241, leave to appeal to SCC refused, [2011] SCCA No 146, [2011] SCCA No 149 [*Jim Pattison*]; *R v Mersey Seafoods*, 2008 NSCA 67, 295 DLR (4th) 244.


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Hinkson J determined whether net-pen aquaculture was a “fishery”, Hinkson J was nonetheless required to determine the purpose and effects of the impugned laws.

In addition, Hinkson J also erred in finding that net-pen aquaculture is a “fishery”. In the next section I apply the case law interpreting the meaning of “fishery” within the meaning of s. 91(12) and determine that net-pen aquaculture is not a “fishery”. In the subsequent section I then apply the pith and substance analysis afresh to the impugned laws in Morton to determine their constitutionality.

4.3 The Meaning of “Fisheries”

Hinkson J erred in finding that net-pen aquaculture is a “fishery” within the meaning of s. 91(12). This finding likely stemmed from an over-reliance on dictionary definitions of “fishery” as used in general language and an under-reliance on the case law interpreting the meaning of “fishery” in the Constitution Act. While many tidal net-pen aquaculture activities may affect the “fisheries”, aquaculture itself is not a “fishery”.

The “fishery”, as used in s. 91(12), is the wild fishery. The purpose of the federal fisheries power is to assign the power to preserve the wild fishery to a unitary central government, because the wild fishery crosses borders and is subject to international fishing pressures. This interpretation is borne out both by the Hansard at the time of confederation and the case law interpreting the section since confederation. Until recently, Hansard was generally considered inadmissible in interpreting the Constitution Act.8 However, in a number of recent decisions, including division of powers cases, the Supreme Court of Canada has looked to the history of the Constitution Act to assist with interpreting its

meaning.\textsuperscript{9} However, the Court has cautioned that the debates are not conclusive\textsuperscript{10} – the Constitution Act is a “living tree” which is capable of being read progressively to the “realities of modern life”.\textsuperscript{11} Mindful of this caution, I begin first with the Hansard.

4.3.1 Use of the Term “Fisheries” in the Hansard

The control over the fisheries was a hotly contested power at confederation. As noted in chapter 2, at the time of confederation, there was a modest oyster culture industry as well as some modest finfish hatcheries. However, the wild capture fishery dwarfed all aquaculture production. In fact, the wild capture fishery was a vital pillar of the British North American economy. In 1831, a member of the Nova Scotia Assembly stated:

The very existence of Trade in these Northern Colonies depends upon the prosperity of the Fisheries, which are the principal support of the Trade to the West Indies: we could not supply the Islands with Timber, and numerous other articles, if our Fisheries failed, as that staple article affects directly or indirectly every other branch of Commerce from these Atlantic Colonies.\textsuperscript{12}

Before confederation, the “sea coast and inland fisheries” were a matter of legislation within the power of each of the British North American colonies.\textsuperscript{13} Following the Charlottetown Conference in September 1864, the confederation negotiations appeared to


\textsuperscript{10} See Reference re Employment Insurance Act (Can.), ss. 22 and 23, supra note 9 at para 9.


\textsuperscript{12} See Joseph Gough, Managing Canada’s Fisheries: From early days to the year 2000 (Sillery: Septentrion, 2007) at 45-46; See also Harold Innis, The Cod Fisheries: The History of an International Economy (New Haven, Conn.: Yale University Press, 1940).

\textsuperscript{13} See Attorney-General for British Columbia v Attorney-General for Canada (No. 2), [1913] JCJ No 2 at para 17, 15 DLR 308 at 314-318, [1914] AC 153 (PC) [BC Fisheries Reference].
separate responsibility of the sea coast fishery and the inland fishery. Responsibility for the sea coast fishery was to be placed in the federal government and responsibility for the inland fisheries in the provinces. At the Québec Conference in October 1964, Colonel John Hamilton Gray of PEI made an amending motion to include both fisheries within provincial power and the delegates agreed to this motion. However, by the end of the Québec Conference the powers were amended to give both levels of government concurrent jurisdiction over fisheries. In the confederation debates, the Honourable Sir Etienne Taché, Premier of the Province of Canada, referred to the fisheries as “a source of great wealth”. A member stated in debate that “[t]here are two or three more of the points of the resolutions to which I have objections … the sea coast fisheries are in the hands of the local legislatures. These are matters common to the whole, and should, for many reasons, be under the control of the General Government.” By the London Conference in 1866, all further drafts placed both sea coast and inland fisheries powers exclusively within the powers of Parliament.

The general consensus among scholars is that the purpose in making the fisheries power exclusively federal was because a larger, national government was required to regulate American fishing incursions into Canadian waters. Beginning in 1855, the

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15 See *ibid*.


20 See *ibid*.

colonies enjoyed a Reciprocity Treaty with the United States that significantly benefited the colonies through access to the American market. The Americans, in turn, were granted the privilege to fish in the rich Canadian waters. In 1865, the Americans indicated their intention to abrogate the Reciprocity Treaty effective in 1866. In the confederation debates in 1865, when a continuation of the Reciprocity Treaty was still thought possible through negotiation, delegates pushed for a centralized fisheries power in order to bring a stronger unified voice to the reciprocity bargaining table. In the 1865 confederation debates the Honourable John Rose stated:

I think we ought not to undervalue in this discussion the collateral advantage which control of the fisheries will give to the united government in the union formed. Remember that these fisheries will form an important part in the future negotiations with the United States in reference to Reciprocity.

Despite negotiations, in 1866 the Americans terminated the Reciprocity Treaty. This dealt a significant blow to the economy of the colonies, and pushed Nova Scotia to provide emergency relief to fishermen. In an effort to revive reciprocity, the colonies withdrew the fishing privileges given to American vessels within the three-mile limit of the coasts of colonies. American fleets nonetheless breached the three-mile limit. The premier of Nova Scotia announced intentions to seize American ships within the three-mile limit. The Province of Canada began to require that American fishers purchase licences to

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22 See Gough, supra note 12 at 60.
23 See ibid.
24 See Wildsmith, “Individual Entitlements”, supra note 14 at 41.
25 Parliamentary Debates, supra note 18 at 416 (Hon. John Rose).
26 See Gough, supra note 12 at 80.
27 See ibid.
28 See ibid at 81.
29 See ibid at 80.
30 See ibid at 81.
fish in Canadian waters.\textsuperscript{31} However, only about half the American ships purchased licences and the revenues amounted to a mere $13,000 compared to the $220,000 the British North American fishermen paid to the Americans in duties.\textsuperscript{32} The push toward negotiations with the Americans became a push toward protecting Canadian fisheries from the American vessels. A member stated in the confederation debates:

> And let me say a word as to the effect of the repeal of Reciprocity on the American fishing interest. The Americans, in 1851, had engaged in the cod and mackerel fishing in our waters, shipping to the extent of 129,014 tons - but under the influence of the Reciprocity Treaty it rose, in 1861, to 192,662 - an increase, in ten years, of upwards of 63,000 tons, or fifty per cent. (Hear, hear.) The repeal of Reciprocity will give us back all this increase, and more, for it will be a very different thing in the future from what it was formerly, to poach on our fishing grounds, when these provinces are united and determined to protect the fisheries of the Gulf.\textsuperscript{33}

The theme in the Hansard is that the “fisheries” power was assigned to Parliament because wild fish were a “matter common to the whole” and because of the American threat to the wild fishery. There is no reference to aquaculture. Aquaculture was a private matter and unrelated to American incursions. In light of this context, it would make little sense to also include aquaculture within the meaning of “fisheries” in the \textit{Constitution Act}. However, the Hansard is not conclusive. Overall, to determine the scope of the word “fishery”, it must be read in the context of the rest of the powers in the \textit{Constitution Act}. This was done in the case law following confederation, which I turn to next.

4.3.2 Case Law and the Meaning of “Fisheries”

The case law following confederation established that the federal fisheries power is the power to regulate the effects on wild fish in the national interest - it is not the power to

\textsuperscript{31} See \textit{ibid}.
\textsuperscript{32} See \textit{ibid}.
\textsuperscript{33} Parliamentary Debates, \textit{supra} note 18 at 106 (Hon. George Brown).
regulate private property matters such as the raising of cultured fish or the processing of cultured fish. The scope of the federal fisheries power had to be balanced with the scope of the provincial power over property and civil rights in s. 92(13). The courts have repeatedly held that s. 91(12) cannot be read to include the power to pass laws that are, in pith and substance, in relation to the regulation of private property. Therefore, aquaculture should not be captured in the meaning of “fishery” because (1) the federal fishery power does not include the power to pass laws that seek to regulate private property and (2) cultured fish are private property. I will explain each of these two propositions in turn.

The Supreme Court of Canada carved out the power to regulate property from s. 91(12) in Robertson in 1882. Beginning around 1850, as inland salmon runs declined, the idea of promoting salmon conservation by creating more private fisheries for inland salmon rivers grew. Fishing leases would grant an individual an exclusive right to fish a particular area of a river. The leases were an attempt to avoid a tragedy of the commons: if individuals held private interests in the salmon return then they would have more incentive to protect the rivers and allow more salmon to return upstream to their spawning grounds for future runs. The first Fisheries Act in the Province of Canada contained provisions for fishery leases. After confederation, the Fisheries Act in the Dominion of

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35 Supra note 34.

36 See Gough, supra note 12 at 66.

37 See ibid.


39 See ibid at 73.
Canada contained similar provisions. 40 In Robertson, the Supreme Court of Canada held that a fishing lease issued by the Dominion of Canada under the Fisheries Act was outside the federal fisheries power. 41 In Robertson, Canada granted an exclusive fishing lease to an individual to fish in a river that ran through the property of another landowner. Under the common law, the private landowners, as owners of both sides of the river, also owned the fishing rights in the river. Where an individual owns the land adjacent to a non-tidal river, he or she also owns the fishing rights adjacent to his property to the mid-point of the river (ad medium filum aquae); where the individual owns the land on both sides of the river, then he or she owns all the fishing rights in the river. 42 In Robertson, since the fishing rights were already privatized in that river, the Dominion grant of an exclusive fishing lease to another private individual was not for the purpose of fishery preservation in the national interest. 43 The private owners of the river challenged the lease and the Supreme Court of Canada struck it down as ultra vires the federal fisheries power. Ritchie CJ held that the fisheries power was:

Not in reference to “property and civil rights”-- that is to say, not as to the ownership of the beds of the rivers, or of the fisheries, or the rights of individuals therein, but to subjects affecting the fisheries generally, tending to their regulation, protection and preservation, matters of a national and general concern and important to the public, such as the forbidding fish to be taken at improper seasons in an improper manner, or with destructive instruments, laws with reference to the improvement and increase of the fisheries; in other words, all such general laws as enure as well to the benefit of the owners of the fisheries as to the public at large, who are interested in the fisheries as a source of national or provincial wealth; in other words, laws in relation to the fisheries, such as those which the local legislatures were, previously to and at the time of confederation, in the habit of enacting for their regulation, preservation and protection, with

40 31 V c 60, s 2.
41 See Robertson, supra note 34.
42 See ibid.
which the property in the fish or the right to take the fish out of the water to be appropriated to the party so taking the fish has nothing whatever to do, the property in the fishing, or the right to take the fish, being as much the property of the province or the individual, as the dry land or the land covered with water.\textsuperscript{44}

La Forest J noted in \textit{Water Law in Canada: The Atlantic Provinces} that such leases could likely be upheld under the federal fisheries power if they were created for the purpose of preserving the fishery.\textsuperscript{45} In \textit{Robertson}, Canada treated the leasing sections of the \textit{Fisheries Act} as a means to grant property rights. Such a purpose was \textit{ultra vires} Parliament.

The distinction in \textit{Robertson} between legislation in relation to property and legislation in relation to “subjects affecting the fisheries generally, tending to their regulation, protection and preservation, matters of a national and general concern and important to the public” was affirmed by the Privy Council in the fishery reference trilogy in British Columbia,\textsuperscript{46} Ontario\textsuperscript{47} and Québec\textsuperscript{48} and was cited by McLachlin CJ in \textit{Ward}.\textsuperscript{49} This distinction accords with the context in which the \textit{Constitution Act} was drafted. As noted above, the idea behind centralizing the fisheries power was to preserve the fishery for the benefit of the provinces and the country as a whole. There was no indication in the debates or the text of the \textit{Constitution Act} regarding granting property rights in the fisheries to the federal government. To the contrary, the \textit{Constitution Act} explicitly grants the power to legislate in relation to property to the provinces.

The scope of the federal fisheries power is defined by the “public” or “national” quality of the fisheries. As noted by Laskin CJ: “the federal fisheries power ‘is concerned

\begin{footnotes}
\item[44] \textit{Robertson, supra} note 34 at 124.
\item[45] See La Forest, “Water Law in Canada”, \textit{supra} note 43 at 39.
\item[46] See \textit{BC Fisheries Reference, supra} note 34.
\item[47] See \textit{Ontario Fisheries Reference, supra} note 34.
\item[48] See \textit{Québec Fisheries (Re), [1921] 1 AC 413, 56 DLR 358 (PC) [Québec Fisheries Reference].}
\item[49] See \textit{Ward, supra} note 4 at para 34.
\end{footnotes}
with the protection and preservation of fisheries as a public resource”.

In Ward, McLachlin CJ also quoted a number of decisions regarding the meaning of “fisheries” that suggest it refers to the common fishery, including Major J’s statement in Comeau’s Sea Foods Ltd v Canada (Minister of Fisheries and Oceans): “Canada’s fisheries are a ‘common property resource’, belonging to all the people of Canada. Under the Fisheries Act, it is the Minister’s duty to manage, conserve and develop the fishery on behalf of Canadians in the public interest.”

Limiting the federal fisheries power to regulating effects on the fishery to the benefit of the public is necessary to prevent the elimination of the content of s. 92(13) in the fisheries context. The scope of provincial authority increases from tidal waters, to non-tidal private waters, to net-pens. In tidal waters there is a public right to fish. In these waters there are a myriad of public interests that give rise to a broad range of federal laws such as laws that allocate fishing rights and the power to preserve the tidal fisheries for the public generally. By contrast, in the portions of non-tidal waters in which the right to fish is privately owned, the federal legislative power is limited to the power to preserve the fishery for the public generally:

[General jurisdiction over the fisheries [in which the right to fish is privately held] is secured to the parliament of the Dominion, whereby they are enabled to pass all laws necessary for their preservation and protection, this being the only matter of general public interest in which the whole Dominion is interested in connection with river fisheries in fresh water, non-tidal rivers or streams, such as that now being considered, while at the same time exclusive jurisdiction over property and civil rights in such fisheries is preserved to the provincial legislatures, thus satisfactorily, to


51 [1997] 1 SCR 12 at para 37 [emphasis added].
my mind, reconciling the powers of both legislatures without infringing on either.52

Finally, in the context of net-pens, the activity of aquaculture cannot even rise to the level of a “fishery” in the sense of s. 91(12) because, unlike tidal or non-tidal fisheries, there is no “general public interest” in the act of taking cultured fish, allocating cultured fish, or preserving cultured fish. These are purely private property matters. The only “general public interest” related to the activity of aquaculture is in the protection of the wild fishery from the activities of aquaculture. This may be a subtle distinction but it is an important one. Hinkson J’s statement that “the activity of finfish aquaculture is … a fishery”53 places private property activities (e.g. growing, processing and selling private property) under federal jurisdiction in conflict with s. 92(13) of the Constitution Act.

Unlike the fish in a wild fishery, the fish in a net-pen are the private property of the aquaculturist. Hinkson J declined to decide whether the fish in a net-pen aquaculture site were private property.54 He held that such a determination was unnecessary to decide the case.55 In my view, the fact that the fish in an aquaculture site are private property is a critical factor to understanding whether aquaculture laws are in relation to property pursuant to s. 92(13).

The law of property since before confederation has held that fish in containers are the private property of the possessor. At common law, a person only obtains property in

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52 Robertson, supra note 34 at 120-24 [emphasis added].
53 Morton v British Columbia (Minister of Agriculture and Lands), 2009 BCSC 136 at para 159, 92 BCLR (4th) 314 [Morton].
54 See ibid at paras 159-60; Morton v British Columbia (Minister Agriculture and Lands), 2010 BCSC 100 at paras 68-69, 2 BCLR (5th) 306 [Morton No 2].
55 See ibid at paras 68-69.
wild animals (ferae naturae) when the person takes possession of them. The possessor obtains “qualified title” because title to the animal is lost if it escapes. Therefore, when a fisher catches a wild fish in a net and takes control of it, the fish becomes the qualified property of the fisher. For example, when a fisher secures fish in his net, if another person removes fish from the net he can be charged with larceny. In *Young v Hichens*, Young was operating a commercial seine fishing vessel. Young was closing the large seine net around a school of fish when Hichens, in a small boat, entered Young’s net and caught fish with his own smaller net. The Court held that the fish were the property of Hichens because Young had not obtained full possession of the fish as the net was not completely closed. The reasoning in *Young v Hichens* was approved by the Supreme Court of Canada in *Frederick Gerring Jr. (The) v Canada*. The principle is succinctly stated by the Supreme Court of Canada:

> For the purposes of this case, it may be asserted that all the authorities agree in holding that a wild animal caught in a net or trap is not in the full possession or the absolute property of its owner unless finally seized. This feat, therefore, cannot be accomplished till the hunting or fishing is successfully completed.

Similarly, farmed oysters in a tidal sea bed that are enclosed in some manner by the aquaculturist are also the private property of the aquaculturist - they do not become part of the wild fishery merely because they are placed in the ocean. In *Foster v Warblington Urban Council*, Foster had created an enclosed area on the foreshore where he would keep

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57 See *ibid*.
58 See *State of Ohio v Shaw* (1902), 65 NE 875; Wildsmith, “Aquaculture”, *supra* note 56 at 96.
59 (1844), 6 QB 606, 115 ER 228.
60 *Ibid*.
61 (1897), 27 SCR 271 [*Frederick Gerring Jr.*].
62 *Ibid* at 305.
oysters for fattening.\footnote{[1906] 1 KB 648, [1904-07] All ER 366 (CA).} He imported the oysters and collected them from the wild. He had the permission to use the foreshore by its owner. The city discharged sewage into the oyster bed and Foster sued the city to recover the damage to the oysters. All three lord justices of the English Court of Appeal held that the oysters were Foster’s private property and held that the city was liable for the damage to the oysters.\footnote{\textit{Ibid} at 659-60, 671.} Fletcher Moulton LJ articulated his reasoning on the issue of whether the oysters became part of the general fishery when they were placed in the ocean:

No more exclusive possession in character could I think be imagined. The surface of the ground is artificially altered to adapt it for the purpose, valuable objects in the shape of oysters are left there, and are taken from those beds again to be sold in the market …. Nevertheless there has been so much argument upon the question of the existence of a several fishery, and of such a fishery being necessarily the basis of a rightful title to the oyster beds, that although it is not necessary for my decision in this case I wish to deal with the point. Counsel for the defendants attempted to attack the plaintiff’s title by saying that it was impossible, according to English law, to have oyster beds apart from the existence of a several oyster fishery, and if the several oyster fishery was not proved to exist there could be no rightful title to these beds. I have examined the authorities, and it seems to me that an oyster bed of this kind, which I prefer to call by the older and unambiguous term of an “oyster laying,” has nothing to do with a several oyster fishery, and it can exist quite independently of the existence of such a fishery. If we consider what the purpose of such a bed is, one sees that it differs radically from a right of fishing. Rights of fishing signify a right to catch those kinds of animals \textit{ferae naturae} which exist in the sea, and no doubt when, as in the case of a several or a common oyster fishery, oysters or oyster spawn are dredged from their natural bed something is being taken and appropriated the property or ownership in which, in the case of a common fishery, has not previously existed in any individual. But an oyster laying does not come into operation until the act of appropriation is finished. It exists only for the purpose of being used in connection with chattels, the property of which is in some individual. Oysters, after being caught, are laid down there for the purpose of improving, and unless the owner, by so laying them down, has committed an act of abandonment, the property still remains in him. It would be absolutely contrary to common sense to suggest that the owner, when laying down oysters in a specially constructed oyster bed with the
intention that the oysters shall there get into a state fitter for consumption, intends to abandon them. His very act points to his desire to retain the oysters as his private property. Unless there is some principle of law by which this is taken to be abandonment, there is nothing to lead us to conclude that it is so.\(^{66}\)

Applying these property concepts to net-pen aquaculture, net-pen salmon are the property of the aquaculturist because the operator has possession of the cultured fish. The stock began as eggs in a tray, then moved to on-land containers, and then moved to a closed net in the ocean. The nets in an aquaculture site place fish under greater control even than the nets in a wild fishing net. Aquaculture nets must meet strength standards not applicable to harvest fishing nets. There are submerged video cameras that constantly monitor the fish to observe their feed intake. At the end of their growth a vacuum pipe sucks the fish out of the nets and transports them to the processing plants. At no point does the stock leave the possession of the aquaculturist. Using the language of Fletcher Moulton LJ in *Foster*, an aquaculture site “does not come into operation until the act of appropriation is finished”.\(^{67}\)

Separate but related to the question of whether the aquaculturist “owns” the cultured fish, is the question of whether the aquaculturist is “fishing”, “catching” fish, or “taking” fish when rearing and harvesting fish. “Fishing” involves a pursuit of fish that is complete once an individual has “actual and certain possession of the fish”.\(^{68}\) The oft-quoted passage is Sedgwick J’s definition of “fishing” in *Federick Gerring Jr.*:

> The act of fishing is a pursuit consisting, not of a single but of many acts according to the nature of the fishing. It is not the isolated act alone either of surrounding the fish by the net, or by taking them out of the water and obtaining manual custody of them. It is a continuous process beginning from the time when the preliminary preparations are being made for the

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\(^{66}\) *Ibid* at 680-81 [emphasis added].

\(^{67}\) *Ibid*.

taking of the fish and extending down to the moment when they are finally reduced to actual and certain possession.  

Aquaculture harvesting is not a pursuit. Nor does the aquaculturist “catch” or “take” fish. The aquaculturist’s stock of fish has always been in her “actual and certain possession”. Therefore the cultured fish are neither “fished”, “caught”, or “taken”. Hinkson J erred in finding that an aquaculturist “catches” cultured fish. He failed to have regard to the long history of case law defining what constitutes “fishing” and “catching” fish. As noted by Fletcher Moulton LJ in *Foster*, “[i]f we consider what the purpose of such [an oyster bed] is, one sees that it differs radically from a right of fishing.”

Rather than an activity where wild fish are “caught” or a place where the public “right to fish” is exercised, a net-pen aquaculture site is more akin to a submerged processing facility. In each facility, fish that have always been “caught” are processed into a desirable form for market. While this activity impacts certain federal heads of power, it is not a federal activity in itself. Therefore, for constitutional purposes, net-pen sites are more comparable to fish processing sites which are decidedly outside the federal fisheries power. In *Reference, re: Fisheries Act, 1914* (also known as the “Canneries Reference”), British Columbia challenged the constitutionality of federal *Fisheries Act* provisions that required cannery operators to obtain a licence. Canada argued that cannery regulation was part of the “fishery” or, in the alternative, was necessarily incidental to management of the fishery. The Privy Council struck the licence requirement down as *ultra vires* Parliament:

> In their Lordships’ judgment, trade processes by which fish when caught are converted into a commodity suitable to be placed upon the market cannot upon any reasonable principle of construction be brought within the

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69 Supra note 61 [emphasis added].
70 Morton, supra note 53.
71 [1930] AC 111, [1930] 1 DLR 194 (PC) [Canneries Reference].
scope of the subject expressed by the words “sea coast and inland fisheries”. The Privy Council went on to find that the licence requirement was not necessarily incidental to the regulation of the fisheries; rather, it was a provincial matter relating to property and civil rights. In the similar sense as a cannery, an aquaculturist processes “caught” fish and that activity is a provincial matter - it is not a “fishery”.

Net-pen aquaculture sites are not “fisheries” such that they are automatically a federal responsibility under the federal fisheries power. As a result, it is necessary to assess the purpose and effects of each of the provincial aquaculture laws to determine whether or not they relate to the federal fisheries power. In doing so, I consider the wording of each law, their place in the larger statutory scheme, the mischief they sought to prevent, and the context in which they were created. As I will show in the next section, while I find that some of British Columbia’s aquaculture laws were properly found to be invalid, I also find that some were enacted pursuant to a valid head of provincial power. The central distinction between the valid and invalid laws is not whether aquaculture constitutes a “fishery”; rather the central distinction arises from whether, in pith and substance, the law is in relation to property and civil rights (valid) or in relation to regulating the effects on wild fish in the public interest (invalid).

4.4 The Constitutionality of British Columbia’s Aquaculture Regulations

4.4.1 The Power to Create Regulations in Relation to Aquaculture

In Morton, Hinkson J read down s. 26(2)(a) of the British Columbia Fisheries Act to apply only to marine plant aquaculture. Section 26(2)(a) gave the Lieutenant Governor in

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72 Ibid at para 20 [emphasis added].
Council the power to make regulations “for safe and orderly aquaculture”. Similar sections exist on the east coast.

As discussed above, in my view, aquaculture is not a “fishery” such that all provincial aquaculture regulations in relation to aquaculture are ultra vires the province. Even if aquaculture were considered a “fishery”, the provinces have significant scope to create regulations in relation to managing its lands (s. 92(5)) or property and civil rights (s. 92(13)). For example, labour relation laws and occupational health and safety regulations have been upheld in relation to the fishing industry. In this chapter I also argue that the province can regulate seafloor pollution as a matter coming within s. 92(5). Product marketing within the province is also a matter of provincial jurisdiction. Therefore, Hinkson J ought to have upheld s. 26(2)(a) in relation to finfish aquaculture because the province can validly enact a number of finfish aquaculture regulations. The wording chosen in the British Columbia *Fisheries Act* also limited the scope of the province’s regulatory power to the creation of “safe and orderly” aquaculture. It is not focused on the protection of the wild tidal fishery in the public interest. Rather, it specifies a scope within which the province could enact regulations separate from any federal power.

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73 *Supra* note 53.
74 RSBC 1996, c 149, s 26(2)(a).
75 See e.g. *Aquaculture Act*, RSNB 2011, c 112, s 49; *Fisheries and Coastal Resources Act*, SNS 1996, c 25, s 64; *An Act respecting commercial aquaculture*, RSQ, c A-20.2, s 42; *Aquaculture Act*, RSNL 1990, c A-13, s 11.2.
4.4.2 Escapee Regulation

British Columbia created the *Aquaculture Regulation* under the British Columbia *Fisheries Act*.\(^{78}\) The *Aquaculture Regulation* prohibited escapes, specified net-pen design, and required the aquaculturist to report escapes and keep records. Morton argued that the entire regulation was *ultra vires*.\(^{79}\)

Escapees were one of the first major concerns regarding tidal net-pen aquaculture. The initial concern was that some Atlantic salmon would escape, establish themselves in the wild, and compete with wild Atlantic and Pacific salmon for food and habitat.\(^{80}\) Concerns of interbreeding and hybridization then arose along with concerns about the transfer of disease from escapees to wild fish.\(^{81}\) Single farm site failures can result in large numbers of escapees. In 1997 approximately 370,000 Atlantic salmon escaped from a farm site in Rich Passage, Washington.\(^{82}\) From 1991 to 2010, more than 599,838 Atlantic salmon escaped into British Columbia waters.\(^{83}\) On a yearly basis, escapee numbers vary from 17 salmon in 2006 to 111,769 salmon in 2008.\(^{84}\) While Atlantic salmon sightings are rare on the Pacific coast, Atlantic salmon have been caught in British Columbia tidal waters and have been documented in 79 rivers and streams.\(^{85}\) British Columbia began monitoring escape numbers in 1991.\(^{86}\) While there continues to be little evidence that Atlantic salmon

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\(^{78}\) BC Reg 78/2002.
\(^{79}\) *Ibid*.
\(^{81}\) See *ibid*.
\(^{84}\) See *ibid*; Ministry of Agriculture and Lands, “Escape Statistics” online: Ministry of Agriculture and Lands <http://www.gov.bc.ca>.
\(^{85}\) See *ibid*.
\(^{86}\) See Auditor General of Canada, *supra* note 83 at 30-22.
\(^{87}\) See *ibid*; Ministry of Agriculture and Lands, “Escape Statistics”, *supra* note 84.
are able to establish themselves on the Pacific coast, there is little scientific understanding of their impact.\textsuperscript{88} The \textit{Aquaculture Regulation} was enacted after the British Columbia Environmental Assessment Office’s \textit{Report of the Salmon Aquaculture Review} which reviewed the concerns with escapees.\textsuperscript{89} The public and the government’s concern with escapees focused on the health of wild salmon populations. The predominant concern was not about the value of the salmon lost through the nets or any other property concerns.

In my view, the pith and substance of both British Columbia’s \textit{Aquaculture Regulation} and the current east coast escapee regulations are to minimize the effects on wild tidal fish in the national interest. The scheme of both regulations operate to minimize escapees. The mischief that the regulations seek to prevent is competition, disease, and hybridization concerns. While disease transfer may be an issue for both cultured and wild salmon, competition and hybridization are only issues for wild salmon. Rather than target property concerns, escapee regulations predominantly target wild salmon concerns in the public interest. For example, in the New Brunswick \textit{General Regulation}, an aquaculturist must report the “strain” of the salmon that escaped.\textsuperscript{90} Such reporting requirements target hybridization concerns rather than lost property concerns. In addition, if the main mischief that the provinces sought to avoid was the minimization of lost private property, then the record keeping requirements of the numbers of lost salmon would not likely exist. There would also be little need for immediate reporting to the minister each time a significant escape event occurred. As in other animal husbandry industries, protection against lost property is a matter left to the individual through insurance and business management. Such

\textsuperscript{88} See Office of the Auditor General of Canada, \textit{supra} note 83 at 30-18; BC Environmental Assessment Office, \textit{supra} note 80 at 149.
\textsuperscript{89} \textit{Ibid}.
\textsuperscript{90} See \textit{General Regulation}, NB Reg 91-158, ss 14.1(4)(g), 14.1(6)(e).
reporting and record keeping requirements were part of the British Columbia *Aquaculture Regulation*\(^91\) and are currently found in aquaculture regulations in New Brunswick,\(^92\) Québec\(^93\) and Newfoundland.\(^94\)

Furthermore, food competition and hybridization affect fisheries both inside and outside the province. All net-pen aquaculture sites are within a few kilometres of the provincial boundary. Sites in the Broughton archipelago in British Columbia lie on a wild salmon migratory route which itself leads toward an offshore feeding ground.\(^95\) Escapees may also move inter-provincially and internationally and affect the fisheries of other provinces and countries.\(^96\) Escapee concerns also move temporally, as hybridization has cascading effects on future generations of fish. Hybridization and interjurisdictional competition strike directly at the public interest in protecting the wild fishery.

Since the purpose of escapee regulations is to preserve the wild fishery in the public interest, which is an exclusive federal power, one might conclude that they are within the exclusive legislative power of Parliament under the federal fisheries power. However, the provinces have a broad concurrent power to enact laws for the preservation of wild fish. This power derives from its authority relating to property and civil rights (s. 92(13)), but also from its authority to regulate property on provincial land (s. 92(5)). Over the last century the constitutional case law has recognized provincial power to enact laws for the purpose of preserving wild fish within the province. The early jurisprudence seemed to state that any such provincial legislation would be *ultra vires*. In *Ontario Fisheries*

\(^91\) *Supra* note 79, ss 4-5.
\(^92\) See *General Regulation*, NB Reg 91-158, s 14.1.
\(^93\) See *Commercial Aquaculture Regulation*, RRQ c A-20.2, r 1, s 31(5), 33, 34.
\(^94\) See *Aquaculture Act*, *supra* note 75, s 4(6)(g) (potentially part of the licence conditions in Newfoundland).
\(^95\) See Bruce I Cohen, *The Uncertain Future of Fraser River Sockeye: Volume 1 • The Sockeye Fishery* (Ottawa: Minister of Public Works and Government Services, 2012) at 378 [Cohen, “Cohen Commission Final Report Volume 1”].
\(^96\) See *ibid.*
Reference, the Privy Council ruled that the Ontario *Act for the Protection of the Provincial Fisheries*, which regulated the manner of fishing within the province, was *ultra vires* the province. The Privy Council held that the *Constitution Act* clearly makes the federal power to preserve the fisheries “exclusive” and therefore “the enactment of fishery regulations and restrictions is within the exclusive competence of the Dominion Legislature, and is not within the legislative powers of Provincial Legislatures.”

The Privy Council held that provincial legislation was limited to the property aspects of the fishery such as the conveyance, lease and succession of fishing rights on private land. Acts for preservation of the fishery, by contrast, were forbidden. This reasoning was applied in *Rex v Wagner (No. 2)* in which the Manitoba Court of Appeal, in a 2:1 decision, found that the fishing close time provisions of the provincial *The Game and Fisheries Act* were *ultra vires* the Manitoba legislature.

This definitive exclusion of provincial power over the preservation of wild fish began to soften in the later part of the 20th century. While not explicitly saying so, the courts applied “double aspect doctrine” reasoning to laws created for the preservation of fish in provincially-owned fisheries. Provincially-owned fisheries are those fisheries in which the province controls the right to fish. This includes fisheries over provincial land such as many non-tidal lake and river fisheries. This approach to provincially-owned fisheries likely began with La Forest J’s comments in 1972 in *Water Law in Canada: The Atlantic Provinces*. In that publication La Forest J stated:

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97 *Supra* note 34.
99 See *ibid*.
100 [1932] 3 DLR 679, 40 Man R 305 (CA).
101 *Supra* note 43.
The vesting of power over fisheries in the federal Parliament divests the provinces of authority to legislate on fisheries in a general sense. An unqualified provincial Act dealing with fisheries would be *ultra vires*. But the provinces, nonetheless, have some scope. Provincially owned land, like privately owned land, carries with it the right to fish in any waters thereon. Subject to complying with federal laws respecting fishing, therefore, a province may exercise this right and permit individuals either by lease or permit to use the right subject to such terms and conditions as it sees fit to impose. It may also do this by legislation, for section 92(5) authorizes the provinces to legislate respecting the management of their lands. Accordingly, provinces may enact legislation regulating fishing on their lands, including the establishment of licensing schemes, closed seasons and other fishery regulations. The federal and provincial legislation may exist concurrently, but where there is conflict federal legislation will prevail.102

La Forest J’s position that federal and provincial fish protection legislation could exist concurrently appears to be contrary to the Privy Council’s decision in *Ontario Fisheries Reference*; such concurrent legislation would appear to be contrary to the explicit intention of the *Constitution Act* to make the fisheries power “exclusive”.103 However, La Forest J’s reasoning is consistent with the double aspect doctrine. Preservation of provincially-owned fisheries has two aspects: preservation of the fisheries in the public interest (s. 91(12)) and preservation of the fisheries as a matter of managing provincially-owned property (s. 92(5)).

Recent case law is in favour of a concurrent fisheries power for provincially-owned fisheries. In *Peralta v Ontario* the Ontario Court of Appeal upheld the federal delegation of the administration of the inland fisheries to Ontario.104 The Supreme Court of Canada affirmed that decision, but also noted in *obiter*:

> At one point ... the reasons [of the Court of Appeal] state that the provinces are powerless to regulate fishing for commercial purposes. That is undoubtedly true of general legislation for that purpose. We would not wish, however, to be taken as accepting the proposition that the provinces

102 *Ibid* at 35.
103 *Supra* note 34.
104 49 OR (2d) 705 (CA).
lack jurisdiction to make such regulations in respect of provincially-owned fisheries as an aspect of their power to administer their public property. Any such regulations would, of course, be subject to overriding federal legislation.\footnote{Peralta v Ontario, [1988] 2 SCR 1045 [Peralta SCC].}

Similarly, in \textit{R v Custer}, the Saskatchewan Queen’s Bench applied \textit{Peralta} and upheld the Saskatchewan \textit{Fisheries Act} as \textit{intra vires} pursuant to ss. 92(5) and 92(13) of the \textit{Constitution Act}.\footnote{[1999] 3 WWR 34, 170 Sask R 279 (QB).} The Saskatchewan \textit{Fisheries Act} in \textit{Custer} comprehensively regulated fishing in waters where the bed was owned by the province.\footnote{Ibid at 35.} The Saskatchewan \textit{Fisheries Act} regulated close times, fishing methods, quotas, commercial fishing, and subsistence fishing.\footnote{The Fisheries Act, RSS 1978, c F-16. See \textit{Custer}, supra note 106 at para 16.} Nonetheless, the Court held that fishery preservation was a legitimate provincial Crown interest.\footnote{\textit{Ibid} at para 53.} The same reasoning was also employed in \textit{R v Patey}\footnote{Ibid, s 27.1. \textit{Supra} note 110 at paras 21, 30. \textit{Ibid} at para 53. \textit{Ibid} at para 35.} regarding the Newfoundland \textit{Wild Life Act}.\footnote{RSNL 1990, c W-8. \textit{Supra} note 110 at paras 21, 30. \textit{Ibid} at para 53. \textit{Supra} note 43 at 35.} Provisions of the \textit{Wild Life Act} required fishers to tag their wild salmon after catching.\footnote{\textit{Ibid}, s 27.1. \textit{Supra} note 110 at paras 21, 30. \textit{Ibid} at para 53. \textit{Ibid} at para 35. \textit{Supra} note 43 at 35.} The Court found the purpose of this provision to be the preservation of the salmon species.\footnote{\textit{Supra} note 110 at paras 21, 30. \textit{Ibid} at para 53. \textit{Supra} note 43 at 35.} While this is a federal purpose, the Court held that the province had concurrent power in regards to “provincially-owned” fisheries.\footnote{See La Forest, “Water Law in Canada” \textit{Supra} note 43 at 35.}

While the law in Canada has evolved to provide the province with concurrent jurisdiction for the provincially-owned fisheries, this line of case law is limited to non-tidal waters within the province. In non-tidal waters within the province the provinces own the fishing rights on its land.\footnote{See La Forest, “Water Law in Canada” \textit{Supra} note 43 at 35.} Therefore, non-tidal waters contain “provincially-owned
fisheries”. By contrast, in tidal waters, the power to enact fishing laws is exclusively federal. In tidal waters there is a common law public right to fish. Furthermore, the case law is clear that only Parliament can enact laws that remove or interfere with the public right to fish. Therefore, the provinces hold the right to fish in non-tidal waters, but they cannot hold the right to fish in tidal waters regardless of whether those tidal waters lie over provincial land. In tidal waters, only Parliament can pass laws that interfere with the public fishing right through laws like close times, quotas and gear types. While some provincial wildlife statutes vest the property of wild fish in the provincial Crown, these statutes cannot lawfully exclude the public from catching wild fish in tidal waters. Therefore, in tidal waters, the provinces do not have a concurrent power to enact legislation to preserve wild fish.

In defending its escapee regulations a province may attempt to argue that escapee regulations are in pith and substance in relation to protecting the property interests of the province; the provinces may argue that escapees threaten provincially-owned salmon fisheries since the tidal and non-tidal fisheries are connected. However, such an argument would likely fail for two reasons. First, the predominant purpose of escapee regulations is much broader than merely the province’s property interests in provincially-owned fisheries. Rather, escapee regulations attempt to regulate effects on the wild fisheries in both tidal and non-tidal waters and both inside and outside the province. It would be disingenuous to

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116 See Patey, supra note 110 at para 53.
117 See BC Fisheries Reference, supra note 34.
118 See ibid.
119 See ibid.
120 See ibid.
121 See Wildlife Act, RSBC 1996, c 488, s 2; Fish and Wildlife Act, SNB 1980, c F-14.1, s 3; Wildlife Act, RSNS 1989, c 504, s 4; Wildlife Conservation Act, RSPEI 1988, c W-4.1, s 2; Wild Life Act, RSNL 1990, c W-8. See also Constitution Act, supra note 54, s 109; Gerard V. La Forest, Natural Resources and Public Property Under the Canadian Constitution (Toronto: University of Toronto Press, 1969) at 77 [La Forest, “Natural Resources”].
argue that the provinces are primarily concerned with provincially-owned fisheries rather than the health of the fisheries a whole. Second, if such an argument were accepted it would effectively turn the federal fisheries power into a concurrent power; something that was rejected during the drafting of the Constitution Act and contrary to the text of the Constitution Act. If the provinces were able to regulate escapees in tidal waters to protect provincially-owned fisheries in non-tidal waters, then they could employ the same reasoning to enact tidal salmon fishing regulations to protect the continued existence of non-tidal salmon fisheries. This a proposition that has been rejected since Robertson and the BC Fisheries Reference.

Furthermore, the “peace, order, and good government” (“POGG”) power acts to place escapee regulations within exclusive federal jurisdiction. The POGG power is found in the opening words of s. 91 and gives Parliament the power “to make laws for the peace, order and good government of Canada, in relation to all matters not coming within the classes of subjects by this Act assigned exclusively to the Legislatures of the provinces”. The POGG power provides Parliament with three legislative powers. The first is a “residual” or “gap-filling” power – it gives Parliament the power to legislate in relation to any matter not listed as a provincial or federal head of power. An example is such a “gap” is the power to control offshore resources outside the provinces. The second POGG power is an “emergency” power which has allowed Parliament to enact laws in relation to war and insurrection. The third power, and most relevant for aquaculture, is

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122 Constitution Act, 1867, RSC 1985, App II, No 5, s 91.
123 See Hogg, supra note 8, ch 17 at 2.
124 See ibid, ch 17 at 5; Reference Re: Ownership of Off Shore Mineral Rights (British Columbia), [1967] SCR 792.
125 See The Emergency Powers Act, SC 1950-51, c 5; Hogg, supra note 8, ch 17 at 19.
126 See ibid; Public Order (Temporary Measures) Act, SC 1970-71-72, c 2.
the power to enact laws in relation to “the concern of Canada as a whole”.\textsuperscript{127} Such a matter must be a “single indivisible” subject of “national concern”.\textsuperscript{128} Examples include marine pollution,\textsuperscript{129} nuclear energy\textsuperscript{130} and aeronautics.\textsuperscript{131} A key factor in the national concern analysis is whether the problem targeted by the legislation “is beyond the power of the provinces to deal with it.”\textsuperscript{132} As professor Hogg notes:

> It seems, therefore, that the most important element of national concern is a need for one national law which cannot realistically be satisfied by cooperative provincial action because of the failure of one province to cooperate would carry with it adverse consequences for the residents of other provinces.\textsuperscript{133}

If a matter is assigned to Parliament pursuant to the national concern doctrine, then it becomes a matter of exclusive federal jurisdiction.\textsuperscript{134}

In my view, legislative jurisdiction over escapees to protect wild fish could also fall under the POGG power as a matter of national concern. As mentioned above, marine pollution, even within the provinces, has already been recognized as a distinctive matter of national concern sufficient to fall within the POGG power.\textsuperscript{135} Marine pollution is “distinctive” because of the distinct composition (salinity) of marine waters. Furthermore, marine pollution is a national concern because of its interprovincial and international character.\textsuperscript{136} While there is no precedent for escapees, a common example of a matter of

\textsuperscript{127} See Crown Zellerbach, supra note 50.
\textsuperscript{128} See Hogg, supra note 8, ch 17 at 8-19.
\textsuperscript{129} See Crown Zellerbach, supra note 50.
\textsuperscript{130} See Ontario Hydro v Ontario, [1993] 3 SCR 327.
\textsuperscript{131} See Johannesson v West St Paul, [1952] 1 SCR 292.
\textsuperscript{133} See Hogg, supra note 8, ch 17 at 14-15.
\textsuperscript{134} See Crown Zellerbach, supra note 50 (“… where a matter falls within the national concern doctrine of the peace, order and good government power, as distinct from the emergency doctrine, Parliament has an exclusive jurisdiction of a plenary nature to legislate in relation to that matter, including its intra-provincial aspects.” at para 34). See also ibid at para 74.
\textsuperscript{135} See Crown Zellerbach, supra note 50.
\textsuperscript{136} See ibid.
national concern is “pestilence”. Pestilence is a single, indivisible subject because it can be isolated and identified through testing. Pestilence is also a subject of national concern because “the failure of one province to take preventative measures would probably lead to the spreading of the disease into those provinces which had taken preventative measures”. Escapees are similarly a single, indivisible matter that can be isolated and remedied. They are in fact more distinct than marine pollution which is difficult to distinguish at the threshold between salt and fresh waters. They are also more distinct than the general subject of “aquaculture” which, as a whole subject, is unlikely to be considered sufficiently single and indivisible to fall within the POGG power. Finally, while it may seem extreme to compare escapees to a pestilence, escapees are in some ways more serious than disease epidemics. Not only can escapees spread an epidemic amongst wild fish, but escapees could possibly hybridize with wild fish, a process that cannot be undone and forever compromises the ability of the species to survive into the future.

Escapees are also a national concern as they travel inter-provincially and internationally. The problem is beyond the scope of the provinces as “the failure of one province to act would injure the residents of the other (cooperating) provinces.” In Interprovincial Co-operatives Ltd, Pigeon J held for three of the four judge majority that Parliament has exclusive authority under the POGG power to licence inter-provincial pollution. In British Columbia, Atlantic salmon net-pen sites are located in proximity to those in Washington. These sites may exchange escapees and diseases with each other and

137 See Attorney-General Ontario v Canada Temperance Federation, [1946] AC 193 at 205-8 (PC); Hogg, supra note 8, ch 17 at 14.
138 Ibid.
139 See Crown Zellerbach, supra note 50.
140 See Wildsmith, “Aquaculture”, supra note 56 at 77.
141 See Hogg, supra note 8, ch 17 at 14. See also Interprovincial Co-operatives Ltd, supra note 34.
142 Ibid.
with offshore wild fisheries. On the east coast, despite their proximity and identical operations, each province regulates escapees differently. New Brunswick requires detailed reporting within 24 hours of an escape of over 100 fish.143 These requirements are contained directly within regulation. By contrast, in Newfoundland, the escapee regulations are contained within the licence conditions, which are not public.144 The public does not have access to the government’s or industry’s records of escapees in the province.145 Finally, in Nova Scotia, there is nothing in the legislation or regulations to suggest that there are any escapee reporting requirements at all for aquaculturists.146 The result of this disparity in regulation is that, despite its best efforts, New Brunswick may be unable to protect wild salmon from escapees because of the slack regulations of neighbouring provinces.

Provinces may also attempt to defend escapee regulations on the basis that net-pen aquaculture businesses are provincial undertakings and therefore the provinces can regulate the effects that flow from those undertakings. This argument would also likely fail because the “effect” that the provinces seek to regulate in regards to escapees falls squarely within the federal fisheries power: escapee regulations seek to regulate the effect on wild tidal fish in the national interest. In addition, provincial escapee regulations seek to regulate effects on interprovincial and international fisheries. In Interprovincial Co-operatives Ltd, Pigeon J stated for three of the four judge majority:

It has been determined in Citizens Insurance Company of Canada v. Parsons [(1881), 7 App. Cas. 96], that the power to regulate by legislation

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143 *Aquaculture Act*, RSNB 2011, c 112, s 13(1)(f); *General Regulation*, NB Reg 91-158, s 14.1.
144 *Aquaculture Act*, RSNL 1990, c A-13, s 41(6)(g).
145 See Atlantic Salmon Federation, “Concerns Over Escaped NL Fish” (22 May 2013) online: Atlantic Salmon Federation <http://www.asf.ca/concerns-over-escaped-nl-farmed-fish.html>.
146 See *Fisheries and Coastal Resources Act*, SNS 1996, c 25; *Aquaculture Licence and Lease Regulations*, NS Reg 15/2000
the contracts of a particular business or trade is within the scope of provincial legislative authority over property and civil rights. However, where business contracts affect interprovincial trade, it is no longer a question within provincial jurisdiction. The matter becomes one of federal jurisdiction. Such is the substance of our recent judgment in Burns Foods Limited v. Attorney General for Manitoba [[1975] 1 S.C.R. 494]. In my opinion, the same view ought to be taken in respect of pollution of interprovincial waters as with respect to interprovincial trade.147

Finally, provinces may also argue that, as a practical matter, the court should uphold provincial escapee regulations and allow both levels of government to legislate to protect wild fish from escapees. Indeed, the Supreme Court of Canada appears willing to uphold environmental legislation in an effort to promote greater government action and cooperation in environmental protection.148 However, in the aquaculture context, giving jurisdiction over escapees to both orders of government would likely be environmentally damaging. On the east coast the position of the federal and provincial governments appears to be that both orders of government can regulate escapees and this has led to uncoordinated provincial regulations. In reality, both orders of government do not create escapee regulations for the same sites. Escapee regulations are expensive to enforce. They require site inspections to remote areas by trained staff. While the federal government is better placed as a national body to regulate escapees, it is unwilling to regulate escapees unless a court decides that it is its exclusive responsibility. The federal government’s escapee regulations in British Columbia are stronger than any of those in the Atlantic provinces and the expansion of those regulations to the Atlantic provinces would be an improvement. For example, the federal government requires aquacuturists to report “any

147 Supra note 34.

escape or evidence of escape…upon discovery” whereas in New Brunswick aquaculturists are only required to report “confirmed” escapes within 24 hours of confirmation. In the time between discovery of evidence of escape and the confirmation of an escape, any chance of a meaningful containment response by the regulator is likely lost.

Overall, I agree with Hinkson J’s conclusion that the Aquaculture Regulation should be read down to only apply to marine plant aquaculture. However, I come to this conclusion for different reasons. I reach this conclusion not on the basis that aquaculture is a “fishery”, but on the basis that the pith and substance of the regulations is protection of wild tidal fisheries as a matter of national concern.

The finding that escapee regulation is ultra vires the provincial legislatures has consequences beyond the Morton decision. Similar escapee prevention provisions exist in provincial statutes and regulations elsewhere in the country and the same reasoning applies to them. As such, these provisions are vulnerable to constitutional challenge and the Canadian Aquaculture Industry Association is correct to critique the state of the law.

4.4.3 Aquaculture Seafloor Pollution Regulation

Aquaculture operations, as other forms of animal husbandry, produce a number of by-products that can be harmful to the surrounding environment. In net-pen sites

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150 See e.g. Aquaculture Act, RSNB 2011, c 112, s 13(1)(f); Aquaculture Act, RSNL 1990, c A-13, s 4(6)(g); Commercial Aquaculture Regulation, supra note 93, s 31(5), 33, 34.

151 See Exhibit 1626 entered as part of Cohen Commission Inquiry into the Decline of Sockeye Salmon in the Fraser River, online: Cohen Commission <http://www.cohencommission.ca>.
approximately 15-20% of feed goes uneaten.\footnote{See Carl Folke & Nils Kautsky, “Aquaculture with the environment: prospects for sustainability” (1992) 17 Ocean & Coastal Management 5 at 18; Peter A Robson, \textit{Salmon Farming: The Whole Story} (NanOOSE Bay: Heritage House Publishing, 2006) (uneaten feed estimated between 3-4% at 183); Malcolm Beveridge, \textit{Cage Aquaculture}, 3d ed (Oxford: Blackwell, 2004) [Beveridge, “Cage Aquaculture"] (uneaten feed estimated between 3-5% at 165).} Furthermore, of the feed that is eaten, 25-30\% of the mass of the feed is released as waste.\footnote{See \textit{Ibid} (nitrogen waste for tilapia estimated at 18.4\% at 166); Robson, \textit{supra} note 152 (waste estimated between 20-26\% at 183);} This feed and waste flows into the surrounding environment. While some studies show that the flow of nutrients out of net-pens appears to increase the number of wild fish around the net-pens,\footnote{See e.g. DN Carss, “Concentrations of wild and escaped fishes immediately adjacent to fish farm cages”, (1990) 90 Aquaculture 29-40.} this flow of nutrients can eliminate populations of species on the seabed through a phenomenon called hypernutrification.\footnote{See Beveridge, “Cage Aquaculture”, \textit{supra} note 152 at 167-69.}

Pollution is generally an area in which both Parliament and the provincial legislature have regulatory authority over both the cause of pollution and the effect of pollution.\footnote{\textit{Crown Zellerbach}, \textit{supra} note 50 at 455. See also \textit{R v Hydro Québec}, [1997] 3 SCR 213 at para 131.} As La Forest J noted in \textit{Crown Zellerbach}:

environmental pollution ... is ... all-pervasive ... There is thus cause for concern and governments at every level have begun to deal with the many activities giving rise to problems of pollution. In Canada, both federal and provincial levels of government have extensive powers to deal with these matters. Both have enacted comprehensive and specific schemes for the control of pollution and the protection of the environment. Some environmental pollution problems are of more direct concern to the federal government, some to the provincial government. But a vast number are interrelated, and all levels of government actively co-operate to deal with problems of mutual concern.\footnote{\textit{Crown Zellerbach}, \textit{supra} note 50 at 455. See also \textit{Hydro Québec}, \textit{supra} 156.}

Since pollution touches many federal and provincial heads of power, each order of government has significant regulatory scope. For example, Parliament may regulate pollution from provincial undertakings such as mines if the pollution affects the
environment of fish (s. 91(12)), the territorial sea (s. 91(1A)), or the marine environment generally (pursuant to the peace, order, and good government power). The province may also regulate pollution in inland waters pursuant to its power over provincial lands (s. 92(5)) and over property and civil rights within the province (s. 92(13)).

Net-pen aquaculture pollution has a federal aspect and a provincial aspect. The federal aspect is harm to wild fish. Feces flow out of the net-pens in abundances that may be deleterious to wild fish. Furthermore, parasite treatments can kill wild shellfish species such as lobster in areas around cages. In my view, the power to create pollution regulations targeting harm to the fisheries in tidal waters is exclusively within the powers of Parliament pursuant the federal fisheries power. As discussed in the previous section, there is also a strong argument that Parliament possesses the power to regulate pollution in tidal waters through the “peace order and good government” power. In tidal waters, the provinces cannot rely on the property and civil rights power to justify laws created to preserve wild fish in the national interest.

The provincial aspect to net-pen aquaculture pollution is contamination of the seabed. The constant loading of feed and waste on the seabed can result in high levels of sulphur, effectively creating a desert where a benthic community previously existed. Provincial authority derives from the power in relation to property (s. 92(13)) and the

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159 See Crown Zellerbach, supra note 50 (obiter).
160 See ibid (majority).
162 See Robson, supra note 152 at 152.
163 CBC News, “Aquaculture company on the hook for $500k for pesticide use”, CBC (26 April 2013), online: CBC <http:www.cbc.ca> (I discuss this case in more detail later in this chapter).
power to manage its lands (s. 92(5)). The boundaries of the province are determined by the instrument that created the province. Unless otherwise stated in the creating instrument, the boundaries of a province extend to the low-tide mark but also include the seabed in tidal waters that lie “between the jaws of the land” (\textit{intra fauces terrae}). These areas include bays and estuaries that are ideal for net-pen aquaculture. In fact, all net-pen aquaculture sites in Canada appear to be in tidal waters between the jaws of the land (with two exceptions discussed in chapter 6). Therefore a province generally owns the seabed under net-pen aquaculture sites and has the constitutional power to regulate contamination of the seabed. With respect to net-pen pollution regulations, one must closely examine the legislation for its purpose to determine if it is in relation to the fisheries in general or to prevent contamination of provincial land.

In \textit{Morton}, British Columbia regulated pollution through the \textit{Finfish Aquaculture Waste Control Regulation}. Morton challenged the regulation in its entirety and Hinkson J struck the regulation down in its entirety as he found net-pen aquaculture to constitute a fishery. In my view, the \textit{Finfish Aquaculture Waste Control Regulation} \textit{is intra vires} the British Columbia legislature pursuant to the province’s power to legislate in relation to its property under s. 92(5).

The history and text of the \textit{Finfish Aquaculture Waste Control Regulation} suggest that it was in pith and substance in relation to maintaining the quality of the seabed. The predecessor to the \textit{Finfish Aquaculture Waste Control Regulation} was the Aquaculture

\footnotesize{165 \textit{See Reference Re: Ownership of Off Shore Mineral Rights (British Columbia), supra note 124; R v Keyn (1876), 2 Ex D 63.}}

\footnotesize{166 \textit{See ibid; Reference Re: Ownership of Off Shore Mineral Rights (British Columbia), supra note 124.}}

\footnotesize{167 BC Reg 256/2002.}
Waste Control Regulation that British Columbia promulgated in 1988. This regulation regulated waste by requiring that an aquaculture site that released more than a prescribed quantity of feed and domestic sewage obtain a permit that provided direction regarding best management practices. In 1997, the BC Environmental Assessment Office criticized these regulations on the basis that “[t]his [regulatory] approach has not consistently prevented impacts on the benthos (sea-bed life). More effective measures are needed to measure environmental impacts and to establish standards designed to limit sediment impact.” The BC Environmental Assessment Office offered specific recommendations to achieve this objective including, among other things, the establishment of “standards based on quantitative sediment parameters” and “standards to ensure that sediments under net-cages are not degraded and support levels of biological activity that ensure sediments will return to ambient or near ambient standards within a short period of time of removing fish from a site.” After this report the province created a scientific advisory group to assist the government in creating specific standards to “(1) Maintain Assimilative Capacity Within [the] Lease; (2) Prevent Anoxic Conditions; (3) Maintain Organisms that Bioturbate (re-work, re-oxygenate sediments)” This history of the Finfish Aquaculture Waste Control Regulation indicates that the mischief that the province sought to remedy was degradation of the seabed.

The text of the Finfish Aquaculture Waste Control Regulation appeared to be directed at limiting the degradation of the seabed. The province promulgated the Finfish

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169 Ibid, ss 3-4.
170 Supra note 80.
171 Ibid.

Aquaculture Waste Control Regulation in 2002. The regulations were enacted under the Environmental Management Act which regulates the release of wastes and municipal garbage. The regulation prohibited the introduction of waste “into the environment within the tenure occupied” except in accordance with the regulation. The regulation then listed a number of stipulations regarding pollution of the seabed. The regulations stipulated that the abundance and diversity of organisms “inhabiting the seabed” must be statistically equal to the abundance and diversity of organisms that existed in the seabed before the aquaculture site began operation. Unlike the predecessor regulation, this requirement maintains seabed quality with reference to the health of the seabed itself, rather than focusing on the quantity of emissions. In addition to the diversity requirement, the Finfish Aquaculture Waste Control Regulation required that the free sulphide concentration on the seabed not exceed a certain limit. The sulfide concentration requirement was used as an indicator because, after a certain sulfide concentration, the sea bed becomes anoxic. Feed and waste decompose on the seabed. The bacteria that cause the decomposition consume oxygen. When the seabed is overloaded with nutrients, the oxygen in the surrounding waters is depleted. Under these conditions, the bottom sediments produce hydrogen sulfide leading to increased levels of mortality for surrounding animals. Unlike the predecessor regulation, this requirement also maintained the quality of seabed by preventing anoxic conditions.

173 SBC 2003, c 53.
174 Supra note 167, s 2.
175 Ibid.
176 Ibid.
178 See ibid.
179 See ibid.
180 See ibid.
The history and text of the *Finfish Aquaculture Waste Control Regulation* suggest that its “matter” or “pith and substance” was to limit seabed degradation. Similar to British Columbia’s *Agriculture Waste Control Regulation* that limits the discharge of waste from other farms into watercourses, the *Finfish Aquaculture Waste Control Regulation* targets bed contamination: the regulation measures harm by contamination levels on the seafloor. By contrast, federal pollution laws measure harm by testing the effect on fish mortality.

The geographical scope of the measurements is also limited to the area around the tenure site. Therefore, Hinkson J ought to have upheld the regulation pursuant to the province’s power to manage its lands under s. 92(5).

While Morton did not attack the *Finfish Aquaculture Waste Control Regulation* using the doctrine of interjurisdictional immunity, in my view such an attack would also fail for two reasons. First, the doctrine does not apply in these circumstances. The doctrine operates to render a law of general application inapplicable to particular extra-jurisdictional matters. The law of general application would nonetheless be valid. By contrast, the *Finfish Aquaculture Waste Control Regulation* is not a law of general application. Rather, it specifically targets aquaculture. Therefore, if the law exceeds its jurisdiction, it would be invalid rather than merely inapplicable. Second, even if the doctrine were to apply in this case, the *Finfish Aquaculture Waste Control Regulation* does not encroach on the “basic, minimum and unassailable content” of a federal power. As discussed earlier, aquaculture is not an unassailable core of the federal fisheries power. Aquaculture sites are not federal undertakings either with respect to the federal fisheries power or Parliament’s power over navigation and shipping. Indeed, fishing vessels are not  

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181 BC Reg 131/92, s 11.
182 See e.g. *Pulp and Paper Effluent Regulations*, SOR/92-269, s 2.
183 I owe this insight to Professor Robin Elliot Q.C.
even federal undertakings in respect of either of these two powers. Aquaculture operations are conducted entirely within the boundaries of the province, the product is processed within the province, and the workers are stationed in the province. Aquaculture sites are provincial undertakings and a province may regulate those undertaking to protect its property under s. 92(5).

Finally, in my view, a province’s power to regulate seabed pollution escapes Parliament’s plenary jurisdiction over marine pollution. As discussed in the previous section, marine pollution is a matter of national concern that gives Parliament exclusive jurisdiction to regulate it. However, the Finfish Aquaculture Waste Control Regulation is in pith and substance in relation to maintaining the quality of its land (i.e. the seabed) not regulating marine pollution. To conclude otherwise would be to confuse the purpose of the regulation with its effects.

My conclusion that the Finfish Aquaculture Waste Control Regulation is intra vires the province carries less significance for aquaculture regulation on the east coast. While some east coast aquaculture statutes contain provisions enabling the provincial cabinets to create pollution regulations, it appears that no east coast province has created aquaculture-specific pollution regulations.

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184 Tidal fishing vessels that travel extraprovincially were found to be provincial undertakings such that the provinces could validly enforce its occupational health and safety regulations for fishing vessels: Jim Pattison Enterprises Ltd v British Columbia (Workers’ Compensation Board), 2011 BCCA 35, 15 BCLR (5th) 241, leave to appeal to SCC refused, [2011] SCCA No 146, [2011] SCCA No 149 [Jim Pattison]; R v Mersey Seafoods, 2008 NSCA 67, 295 DLR (4th) 244.

185 See Aquaculture Act, RSNB 2011, c 112, s 13(1)(d)-(e); Aquaculture Act, RSNL 1990, c A-13, s 4(6)(g).

186 The exception may be Québec which requires aquaculturists to handle their fish in “such a way as to prevent any contamination”: Commercial Aquaculture Regulation, supra note 93, s 31(4). Many provinces have general waste management regulations that may apply to aquaculture sites: See e.g. G3 Consulting, Salmon Aquaculture Waste Management Review and Update, Burnaby BC (December 2000).
4.4.4 Civil Liability Legislation

In my view, Hinkson J erred in finding that ss. 1(h) and 2 of the Farm Practices Protection (Right to Farm) Act should be read down to only include plant aquaculture. Sections 1(h) and 2 limited the nuisance liability of the aquaculturist in cases where the aquaculturist engages in “normal” farming practices. He found that the pith and substance of the sections was “the protection of aquaculture practices”, and since he found aquaculture to be a “fishery”, the protection of aquaculture practices was exclusively a federal matter.

As discussed earlier in this chapter, aquaculture is not a “fishery”. Furthermore, even if a court were to find that aquaculture activities constitute a “fishery”, the provinces have significant scope to legislate in the area of fisheries including by altering civil rights to “protect fisheries practices”.

I agree with Hinkson J that the purpose of ss. 1(h) and 2 of the Farm Practices Protection (Right to Farm) Act is to protect aquaculturists from nuisance actions. This could fairly be characterized as “protection of aquaculture practices”. The Farm Practices Protection (Right to Farm) Act states that a licensed aquaculturist is not “liable in nuisance to any person for any odour, noise, dust or other disturbance resulting from the farm operation”.

It defines the rights of farmers in an agricultural context. Aquaculturists are treated equally in the Act to terrestrial farmers. The Farm Practices Protection (Right to Farm) Act is not an environmental regulation like the Aquaculture Regulation and the Finfish Aquaculture Waste Control Regulations. The title of the statute indicates the general purpose is the protection of a farmer’s “rights”. The scheme of the statute creates a

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187 See Morton, supra note 53 at para 64.
188 RSBC 1996, c 131, s 2.
specific complaint hearing mechanism before a panel. The nuisance tort and the remedy are eliminated in regards to farmers. In its place, the statute creates a limited cause of action and a limited number of remedies. The panel will dismiss a complaint against a farmer if “the panel is of the opinion that the odour, noise, dust or other disturbance results from a normal farm practice”. The only remedy to a disturbance is the cessation or modification of the farmer’s practice. The Act likely does not protect an aquaculturist from liability arising from groundwater or surface water pollution.

In my view, for inland aquaculture, “protection of aquaculture practices” is a matter that falls within the province’s power pursuant to property and civil rights under s. 92(13). While inland aquaculture was not mentioned in Hinkson J’s decision, inland aquaculture is likely the main beneficiary of the Farm Practices Protection (Right to Farm) Act. Tidal net-pen aquaculture sites are located where there are likely to be few neighbours to complain of odour, dust, or noise. By contrast, inland trout farmers may generate odour and noise that could disturb neighbours. The province’s power in relation to civil rights enables it to alter nuisance law for the benefit of inland aquaculturists. The meaning of “civil rights” for the purpose of s. 92(13) is not equivalent to the concept of civil liberties such as freedom of expression and religion. Civil rights in this context refers mainly to “proprietary, contractual or tortious rights; these rights exist when a legal rule stipulates that in certain circumstances one person is entitled to something from another.” In this

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189 See ibid, s 3.
190 See ibid, s 2.
191 See ibid, s 6(1)(a).
192 See ibid, s 6(1)(b).
194 See Hogg, supra note 8, ch 21 at 4.
195 Ibid.
sense, ss. 1(h) and 2 are aimed at altering civil rights within the province. The effect of the statute is that farmers are better protected from nuisance litigation and, where there is a complaint, matters are kept out of court. The purpose of the impugned sections is not in relation to regulating effects on the wild fishery in the national interest. In *Interprovincial Co-Operatives Ltd* the Manitoba legislature passed a statute granting a civil remedy to fishers in Manitoba that have suffered from pollution. The statute created a statutory liability for those whose contaminants are carried into the province. A number of Manitoba fishers sued Dryden Chemicals Ltd. pursuant to this statutory liability for fishing losses from mercury pollution discharged by the company. Among other things, Dryden Chemicals Ltd. argued that the statute infringed Parliament’s fisheries power. Laskin CJ, in dissent, but not on this point, rejected this argument:

> It is plain enough to me that a province having rights in property therein is entitled to protect those rights against injury, and, similarly, to protect the interests that others may have in that property, by bringing or authorizing actions for damages, either as at common law or under statutory provision.

Similar to *Interprovincial Co-Operatives Ltd*, through the *Farm Practices Protection (Right to Farm) Act* British Columbia sought to realign the civil rights of two parties that may have opposing interests.

By contrast, the provinces have limited power to alter civil rights in the maritime context because of Parliament’s exclusive power in relation to maritime law. This exclusive power derives from Parliament’s power over shipping and navigation under s. 91(10). In navigable waters, maritime law exclusively governs liability and compensation

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196 Supra note 34.
197 Ibid.
198 Ibid at para 41.
199 Maritime law is a body of federal statutory, common, civil, and international law that grew of a body of English law known as admiralty law. The principal Canadian statutes are the Federal Court Act, RSC 1985, c F-7 the Canada Shipping Act, 2001, SC 2001, c 26 and the Marine Liability Act, SC 2001, c 6.
Maritime law extends to liability arising on the high seas, national waters, and also non-tidal waters within the province, and even land-based activities connected to navigation. Parliament’s jurisdiction over maritime law is territorially co-extensive with its jurisdiction in respect of navigable waterways. As noted by the Supreme Court of Canada:

The nature of navigation and shipping activities as they are practised in Canada makes a uniform maritime law which encompasses navigable inland waterways a practical necessity ... Parliament's power to limit the liability of owners or operators of vessels is not limited to those engaged in commercial shipping ... Once Canadian waters are conceived of as a single navigational network, the activity of navigation is very akin to the activity of aeronautics and should lead to similar constitutional treatment.

The application of maritime law to aquaculture is extensive. Maritime law may govern the liability rules regarding shipping and certain activities on the platform and on land. Ships that supply aquaculture sites and return with product could be subject to maritime rules regarding: (1) title, security and possession of the ship; (2) damages and personal injury caused by a collision with the ship; (3) salvage, towage and repair of the ship; (4) and even the wages of seafarers. However, the aquaculture platform itself would not likely classify as a “ship” under maritime law unless it was designed to be capable of moving from place to place.

Although the platforms are not ships, activities on the platform may nonetheless be subject to maritime law where “the subject-matter under consideration in any case [is] so

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201 See Whitbread v Walley, [1990] 3 SCR 1273 at 1275-76 [Whitbread].
202 See ibid.
203 See Chircop, supra note 200 at 210; Federal Court Act, supra note 199.
204 See ibid, s 2(1); Canada v Saint John Shipbuilding & Dry Dock Co (1981), 43 NR 15 (FCA); Bow Valley Husky (Bermuda) Ltd v Saint John Shipbuilding Ltd, [1997] 3 SCR 1210 at para 85.
Where damage or injury occurs on an aquaculture platform while in navigable waters and as part of the aquaculture operations, such an event may trigger the application of maritime tort law. For example, tort claims arising from fires occurring on oil platforms in navigable waters have been held to fall within maritime law. In *Bow Valley Husky (Bermuda) Ltd v Saint John Shipbuilding Ltd* McLachlin J (as she then was), writing for the majority on this point, held that maritime law would apply to the oil platform even if it was not capable of navigation:

Alternatively, even if the rig is not a navigable vessel, the tort claim arising from the fire would still be a maritime matter since the main purpose of the Bow Drill III was activity in navigable waters. The operation of the rig’s heat trace system was hazardous because the GFCB system that was installed was not appropriate in the ungrounded marine context. The claims against the defendants for failure to warn included allegations that the defendants knew about the special marine material requirements such as non-combustibility or flame retardancy. The products liability issues in this case are clearly dominated by marine considerations. This is not a case that “is in ‘pith and substance’ a matter of local concern involving property and civil rights or any other matter which is in essence within exclusive provincial jurisdiction under s. 92 of the *Constitution Act, 1867*.”

If damage occurs on land, but in support of net-pen aquaculture, maritime law may still apply. The courts would likely apply a functional approach to the activity that resulted in the damage and assess whether the purpose of that activity was the provision of maritime services.

While Morton did not challenge ss. 1(h) and 2 using the doctrine of interjurisdictional immunity, in my view a strong argument could be made that ss. 1(h) and

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205 See *ibid* at para 84; *ITO--International Terminal Operators Ltd v Miida Electronics Inc*, [1986] 1 SCR 752 at 774.
207 *Bow Valley Husky (Bermuda) Ltd v Saint John Shipbuilding Ltd*, *supra* note 204; Chircop, *supra* note 200 at 213; *Dreifelds v Burton*, [1998] OJ 946 (CA).
208 *Bow Valley Husky (Bermuda) Ltd v Saint John Shipbuilding Ltd*, *supra* note 204 at paras 85-86.
are inapplicable in the tidal aquaculture context. The *Farm Practices Protection (Right to Farm) Act* is a statute of general application. Section 2 limits liability for all farmers and s. 1(h) includes all aquaculturists (marine and inland) under the definition of a farmer. Therefore, the sections are open to a finding of inapplicability to the extent that they pertain to marine liability. Although aquaculture is not an unassailable core of federal power, the Supreme Court of Canada has held that maritime negligence law is an unassailable core of Parliament’s exclusive jurisdiction over navigation and shipping. Maritime negligence law was considered unassailable because of the importance of legal uniformity in respect of navigation activities.

In *Marine Services International Ltd v Ryan Estate*, the Supreme Court of Canada held that a provincial worker’s compensation scheme that barred marine negligence actions entrenched on a core of the federal power over navigation and shipping. However, the Court held that the provincial law was nonetheless applicable because the provincial law did not entrench on the federal power to the degree required to render it inapplicable. Since *Canadian Western Bank* and *Québec (Attorney General) v Canadian Owners and Pilots Association*, the necessary level of intrusion into the relevant core has been set at “impairs” rather than merely “affects”. LeBel and Karakatsanis JJ held for the Court that the provincial scheme in *Ryan Estate* did not “impair” the federal power because the claimants

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210 See the discussion in the previous section and the previous chapter.
212 *Ibid* at para 71.
213 2013 SCC 33, [2013] SCJ No 44 [*Ryan Estate*].
would still receive compensation under the provincial scheme (“albeit through a different mechanism and from a different source”).

Sections 1(h) and 2 likely “impairs” the federal power over navigation and shipping. Unlike in Ryan Estate, the impugned sections do not merely create a different mechanism to arriving at the same outcome. The impugned sections create an entirely new tort that did not previously exist in the maritime context. It also eliminates common law nuisance claims in the maritime context. In my view, the impugned sections are likely inapplicable to tidal (maritime) aquaculture, but are applicable to other inland farming practices including inland aquaculture. Such a finding would respect both Parliament’s core power over maritime law and the province’s power over civil rights.

The constitutionality of aquaculture liability laws has importance outside of the Morton context because all other provinces have “right to farm” legislation. Oddly, while land-bound provinces explicitly include fish culture under their right to farm legislation, the east coast provinces only extend such protection to agriculturists which the courts may or may not interpret to include aquaculture.

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215 Ryan Estate, supra note 213 at para 62.
4.4.5 Provincial Licensing of the Activity of Aquaculture

Morton also argued that British Columbia’s aquaculture licensing provisions (ss. 13(5) and 14 of the *Fisheries Act*) were *ultra vires*.\(^\text{219}\) Section 13(5) prohibited anyone from carrying out aquaculture, tidal or non-tidal, without an aquaculture licence issued by the province.\(^\text{220}\) Section 14 stated that a person may apply in writing to the provincial Minister of Agriculture and Lands who “may” issue the licence.\(^\text{221}\) The *Fisheries Act* also contained provisions to allow the minister to attach conditions to the licence and to revoke the licence if those conditions were violated.\(^\text{222}\) Among other things, the conditions required aquaculturists to prevent escapees, undertake “reasonable husbandry practices necessary for ... disease control”, and “maintain and follow a Fish Health Management Plan”.\(^\text{223}\)

Hinkson J upheld ss. 13(5) and 14 because he found that their dominant purpose was to produce revenue based on the licensing of the business of fishing”.\(^\text{224}\) The provinces have the power to impose licensing fees pursuant to s. 92(9) of the *Constitution Act*. Section 92(9) gives the provinces the power to enact laws in relation to licences created for the purpose of raising revenue for provincial purposes. Similarly, s. 92(2) of the *Constitution Act* gives the provinces the power to enact laws that impose a direct tax for the purpose of raising revenue for provincial purposes.

I disagree that the dominant purpose of the aquaculture licence is the production of revenue such that it could be justified under either ss. 92(2) or 92(9). Both ss. 92(2) and

\(^{219}\) *Supra* note 74.

\(^{220}\) *Ibid*, s 13(5).

\(^{221}\) *Ibid*, s 14.


\(^{224}\) *Morton, supra* note 53 at para 172.
92(9) give the provinces a taxing power, but not a regulatory power.\textsuperscript{225} If the purpose of the tax or fee imposed by the province is to further a regulatory regime, that regulatory regime must be in relation to a valid head of provincial power.\textsuperscript{226} In \textit{Morton}, Hinkson J failed to fully analyze the pith and substance of ss. 13(5) and 14. In \textit{Westbank First Nation v British Columbia Hydro and Power Authority}, Gonthier J stated:

Although in today’s regulatory environment, many charges will have elements of taxation and elements of regulation, the central task for the court is to determine whether the levy’s primary purpose is, in pith and substance: (1) to tax, i.e., to raise revenue for general purposes; (2) to finance or constitute a regulatory scheme, i.e., to be a regulatory charge or to be ancillary or adhesive to a regulatory scheme; or (3) to charge for services directly rendered, i.e., to be a user fee.\textsuperscript{227}

In my view, the purpose of ss. 13(5) and 14 was not to raise revenue, but to further its regulatory regime. According to the ministry’s licensing policies, the minister would only issue a licence if it was “in the public interest to do so”.\textsuperscript{228} In considering whether issuance was in the public interest, the minister would consider such broad matters as:

- Protection of public health and safety;
- Protection of the environment;
- Sustainable economic development.\textsuperscript{229}

In assessing these broad matters, the minister would consider the following specific factors:

- Suitability of site/facilities for proposed aquaculture operation;
- Past or demonstrable performance of applicant;
- Comments from referrals;
- Public input/comments;
- Economic and employment benefits;
- Escape prevention, detection and response;

\textsuperscript{225} See Hogg, \textit{supra} note 8, ch 31 at 4, 24.1.
\textsuperscript{226} See \textit{ibid}.
\textsuperscript{227} \textit{Westbank First Nation v British Columbia Hydro and Power Authority}, [1999] 3 SCR 134 at para 30 [
\textit{Westbank First Nation}].
\textsuperscript{229} \textit{Ibid}.
• Consultations with other individuals and agencies (e.g., aquaculture biologist or fish health veterinarian); and
• Other relevant factors relevant to the specific circumstances of each case.²³⁰

The minister also furthered broad aquaculture policies through the conditions of licence. The *Fisheries Act* allowed the minister to impose any condition on the aquaculturist “that the minister considers appropriate”.²³¹ The conditions contained escapee, disease and production requirements. By contrast to the regulatory importance of the licence, the maximum revenue generated by a new aquaculture licence was $225.²³² As noted by the BC Environmental Assessment Office in its salmon farm review in 1997: “Once a salmon farm site tenure is approved, the main provincial mechanism for regulating salmon aquaculture production and operations is the aquaculture licence.”²³³

The case law suggests that provincial regulatory licences relating to the ability to engage in activities in tidal waters must pursue a valid provincial purpose to be *intra vires*. In *R v Breault*, a recreational fisher, Mr. Breault, was fishing at the mouth of the Tabusintac River in New Brunswick in tidal waters that were within the province.²³⁴ New Brunswick’s *Fish and Wildlife Act* requires recreational fishers who are fishing in provincial waters to obtain a licence.²³⁵ The *Fish and Wildlife Act* also prescribes fishing seasons, angling methods, catch limits, and salmon tagging within provincial waters.²³⁶ Finally, the *Fish and Wildlife Act* also expressly limits its application to areas “over or in respect of which the Legislature has authority to legislate”.²³⁷ Various sections of the Act explicitly state that the

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²³¹ *Supra* note 74, s 16(d).
²³² See *Aquaculture Regulation*, *supra* note 79, Appendix 1.
²³³ BC Environmental Assessment Office, *supra* note 80 at 90.
²³⁴ 2001 NBCA 16, 198 DLR (4th) 669 [*Breault*].
²³⁵ SNB 1980, c F-14.1, s 34(2).
Act is subject to the federal *Fisheries Act*.\(^{238}\) Provincial wildlife officers stopped Mr. Breault and asked for his provincial fishing licence.\(^{239}\) Mr. Breault refused to produce a licence and was charged under the Act for failing to produce a licence. Mr. Breault challenged the province’s constitutional authority to require fishing licences in provincial tidal waters. The New Brunswick Court of Appeal, citing the principles from *Robertson*, *BC Fisheries Reference*, and *Ontario Fisheries Reference*, held that the licence requirement was not justified in relation to property and civil rights in the province pursuant to s. 92(13) because the province does not have authority to regulate fishing in tidal waters.\(^{240}\) In tidal waters, the right to fish is vested in the public and only Parliament has the authority to alter it by legislation.\(^{241}\) However, the New Brunswick Court of Appeal held that the licence requirement could be supported by the province’s direct tax power pursuant to s. 92(2) of the *Constitution Act*.\(^{242}\) Section 92(2) gives the provinces the power to enact laws in relation to direct taxation for the purpose of raising revenue for provincial purposes. The Court held that the licence requirement was a valid law under s. 92(2) because it imposed a direct tax and was not regulatory in nature. The Court held that the licence requirement was not regulatory in nature because the sole effect of the licence fee was to impose a single condition on the right to fish: payment of the licence fee.\(^{243}\)

Similar to the licence requirement in *Breault*, the licence requirement in British Columbia’s *Fisheries Act* (and in current east coast aquaculture laws) cannot be justified under the property and civil rights power to the extent that it seeks to preserve wild tidal

\(^{238}\) See e.g. *ibid*, s 116.
\(^{239}\) See *Breault*, supra note 234.
\(^{240}\) *Ibid* at paras 37-43.
\(^{241}\) See *BC Fisheries Reference*, supra note 13.
\(^{242}\) *Supra* note 234 at paras 44-57.
\(^{243}\) *Ibid* at paras 64-65.
fish in the national interest by pinning conditions to the licence such as escapee conditions. However, unlike Breault, the licence requirement in British Columbia’s Fisheries Act also cannot be justified under the direct taxation power under s. 92(2) or the licensing power under s. 92(9). The licence requirement in ss. 13(5) and 14 was used to further broad policy goals including preservation of wild fish, rather than acting as a stand-alone requirement designed to raise revenue. However, the licence requirement was valid inasmuch as it furthers *intra vires* legislative goals. For instance, the licenced status of an aquaculturist triggered the responsibilities under the *Finfish Aquaculture Waste Control Regulation*. As discussed in the previous section, this is a valid provincial regulation. Therefore, in my view, ss. 13(5) and 14 are valid insofar as it was part of a valid provincial regulatory scheme.

This conclusion is also relevant on the east coast. In every jurisdiction in the east coast the province requires a licence for entry into the aquaculture industry. The licence also triggers many of the obligations of the activity and may carry conditions. However, it is crucial that the licence requirement is scrutinized by assessing its purpose and effects to see if it can be tied to a valid provincial head of power.

### 4.5 Chapter Summary

This chapter identified two central errors in the *Morton* decision: Hinkson J failed to consider the pith and substance of each of the impugned laws and incorrectly found that net-pen aquaculture is a “fishery”. Cultured fish are not part of the “fishery” because they

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244 See e.g. *Aquaculture Act*, RSNB 2011, c 112; *Fisheries and Coastal Resources Act*, *supra* note 75; *An Act respecting commercial aquaculture*, *supra* note 75; *Aquaculture Act*, RSNL 1990, c A-13.
are the private property of the aquaculturist. This fact gives the provinces the ability to regulate certain aspects of aquaculture under the province’s property and civil rights power.

Hinkson J correctly found that British Columbia’s escapee regulations were unconstitutional. The pith and substance of escapee regulations is to preserve wild fish in the national interest by minimizing hybridization, competition, and disease transfer between wild and cultured fish. Only Parliament can create laws that in pith and substance seek to preserve wild fish in tidal waters in the national interest. By contrast, Hinkson J erred in finding that British Columbia’s seafloor pollution regulations were unconstitutional. The provinces can justify seafloor pollution laws through their power to manage their lands. The provinces can also justify aquaculture laws that alter civil liability rules; however, the application of such laws is limited by Parliament’s exclusive jurisdiction over maritime law.
Chapter 5: The Constitutionality of the Aquaculture Regulations in the Atlantic Provinces

5.1 Introduction

In the preceding chapter I assessed the constitutional viability of the laws that were impugned in Morton: (1) regulation creation; (2) escapees regulation; (3) pollution regulation; (4) nuisance liability; and (5) licensing. While these types of aquaculture laws are a good sample of the aquaculture laws that exist in Canada, they do not capture a number of other important categories that did not exist in British Columbia but existed (and continue to exist) in the Atlantic provinces. In this chapter I assess the constitutionality of aquaculture laws in relation to: (1) disease management; (2) property right creation; (3) physical structures; (4) predators; (5) siting and use of the sea floor; and (6) the public right to fish.

5.2 Disease Regulations

Disease generates the most controversy in regards to tidal net-pen aquaculture. Morton’s strategy in litigating the Morton case was to halt or reverse the growth of salmon farms. Her studies suggested that salmon farms cause wild salmon mortality through sea lice loading. A sea louse is a parasite that attaches to salmon and feeds on the salmon’s skin and body fluid. Sea lice occur naturally in the wild and, even in an absence of salmon

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farms, wild salmon commonly carry sea lice.\textsuperscript{3} The hypothesis regarding the negative effect of salmon farms is that they produce higher concentrations of sea lice and, as a result, the lice attach to wild salmon earlier in their life cycle than in the absence of salmon farms. Many salmon migrate through the salmon farms in the Broughton Archipelago,\textsuperscript{4} and it appears that, left untreated, farmed salmon release large numbers of sea lice into the wild.\textsuperscript{5} However, many studies dispute the suggestion that these sea lice have a meaningful impact on wild Pacific salmon numbers because of the effectiveness of sea lice treatments and resistance of Pacific salmon to the type of sea lice found in net-pens.\textsuperscript{6}

Salmon farms using sea lice treatments may also pose a threat to wild shellfish. A popular sea lice treatment is SLICE (emamectin benzoate), which is added to salmon feed in order to disrupt the neurotransmissions in crustacean species such as the sea louse.\textsuperscript{7} A study in the Broughton Archipelago showed that SLICE could reduce sea lice abundance 99\% after the first treatment and 92\% after the second treatment.\textsuperscript{8} However, there is

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\textsuperscript{3} See \textit{ibid}.
\textsuperscript{4} See \textit{ibid}.
\textsuperscript{8} See Orr, \textit{supra} note 5. See also Lees et al, “Changes in epidemiological patterns of sea lice infestation on farmed Atlantic salmon in Scotland between 1996 and 2006” (2008) 31(4) J of Fish Diseases 259-268 (A decline of 52\% was observed in Scottish Atlantic salmon farms).
evidence to suggest excess SLICE can kill wild crustaceans such as lobster, crab and shrimp.9

The most serious prosecution of an aquaculture operation occurred as a result of a sea lice treatment called cypermethrin. For a number of years leading up to 2009, Kelly Cove Salmon Ltd. used SLICE to control sea lice infestations in its Atlantic salmon net-pen site that produced approximately 60 million pounds of Atlantic salmon annually.10 In 2009 and into 2010, the effectiveness of SLICE declined in its operations so Kelly Cove Salmon Ltd. began using a treatment containing cypermethrin, which is amongst the most toxic insecticides known. While its use in tidal net-pen aquaculture sites is approved in Norway, Chile and the United States, Health Canada prohibited its use in Canada for the same purpose in 1998. In 2009, lobster fishers hauled their traps from an area adjacent to a Kelly Cove Salmon Ltd. site. The traps contained dead lobsters. A sample from the site and from the dead lobsters revealed significant levels of cypermethrin. A lobster pen near another Kelly Cove Salmon Ltd. site was found to contain approximately 700 pounds of dead lobsters. On April 26, 2013, the Crown charged Kelly Cove Salmon Ltd. with depositing a deleterious substance in waters frequented by fish contrary to s. 36(3) of the Fisheries Act.11 On the same date Kelly Cove Salmon Ltd. pleaded guilty and was fined $500,000 in a joint submission.12

Despite Morton’s sea lice studies and prosecutions regarding sea lice treatments, sea lice concerns have been eclipsed by disease concerns. Commissioner Cohen found that

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10 See Agreed Statement of Facts filed in R v Kelly Cove Salmon Ltd. (26 April 2013), Moncton (NB Prov Ct) [Kelly Cove]. The details of this paragraph derive from this agreed statement of facts.
11 See Information filed in Kelly Cove, supra note 10.
12 See “Aquaculture company on the hook for $500k for pesticide use”, CBC News (26 April 2013) online: CBC <http://www.cbc.ca>.
“[m]ost of the researchers whom I heard from agreed that sea lice are not directly implicated in the decline of sockeye salmon.”

Commissioner Cohen concluded:

I accept the evidence that Atlantic salmon farms may be a significant source of *Leps* [sea lice] infection for outmigrating smolts. However, the most recent numbers for prevalence and intensity of *Leps* on Fraser River sockeye juveniles are not a cause for concern.

By contrast, the Commission’s findings regarding diseases resulted in a recommendation of a moratorium of salmon farm expansion in the Discovery Island region. The five main diseases of concern from salmon farms are: (1) infectious hematopoietic necrosis (“IHN”); (2) vibrio anguillarum (“vibrio”); (3) furunculosis; (4) bacterial kidney disease (“BKD”), and (5) infectious salmon anemia (“ISA”).

IHN is a virus, first discovered in hatcheries in the United States in the 1950s, that spreads between fish through contaminated water or equipment. It can have devastating effects on farm and wild salmon populations. A documented IHN outbreak recorded a 50% mortality of a run of 17 million Chinook in British Columbia. Vibrio and furunculosis are bacteria that cause high mortality in cultured fish but are less common in the natural environment. BKD exists both in the natural and cultured environments and has a high mortality potential for both populations. ISA is a lethal virus that has been found in commercial Atlantic salmon farms in eastern Canada, eastern United States, Norway, Chile and the United

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14 See *ibid* at 113.
16 See Mei He et al, “Dating the divergence of the infectious hematopoietic necrosis virus” (2013) 18 Infection, Genetics and Evolution 145-150.
19 See *ibid* at 58-59.
20 See *ibid.*
Kingdom but there is no conclusive evidence of its existence in British Columbia. The overall incidence of these five diseases in Canada is relatively small. For example, since 2003 there has been one outbreak of IHN on a salmon farm, six to eight cases of vibrio, and 38 cases of furunculosis. However, Commissioner Cohen accepted “the evidence that the state of scientific research about sockeye–fish farm interactions is not sufficiently developed to rule out diseases on salmon farms as contributing to the decline of Fraser River sockeye and posing future risks.” One expert testified that “a devastating disease could sweep through a wild population, killing large numbers of wild fish without scientists being aware of it.” Commissioner Cohen found that diseases pose an unacceptable risk of serious or irreversible harm. Applying the precautionary principle, he recommended a ten year moratorium on net-pen tidal salmon farms in the Discovery Island region because wild salmon migrate through that area. Global warming also has lethal disease consequences because the prevalence and lethality of disease rises with rising water temperatures.

Currently, both the federal and provincial governments have enacted regulations to prevent the spread of disease to wild fish. These regulations are either created under general agricultural animal health statutes in which cultured fish are added to a long list of other animals subject to health testing or they are found in specific aquaculture statutes. The Canadian Food Inspection Agency (“CFIA”), through the *Animal Health Regulations*,

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21 See *ibid* at 61.
22 Mike Hager, “Fatal IHN virus detected in B.C. Atlantic farmed salmon for the first time since 2003” online: The Vancouver Sun <http://www.vancouversun.com>.
25 See *ibid* at 22.
26 See *ibid*.
27 See *ibid* at 25.
28 See *ibid*.
requires an aquaculturist to allow an inspector to test their stock upon request and controls the movement of fish between diseased areas. When the aquaculturist detects the presence of the most serious salmon diseases (such as IHN and ISA), she must immediately report it to the CFIA. For the remaining diseases (such as vibrio, furunculosis and BKD), the aquaculturist only needs to report them at the end of the year in which the aquaculturist detects the disease. CFIA may also order the destruction of diseased fish. Under the Fish Health Protection Regulations, DFO regulates the interprovincial movement of fish by requiring that the aquaculturist provide certification that the fish are disease-free before they move inter-provincially. CFIA recently took responsibility for the regulation of the international movement of fish and requires that salmon (including salmon eggs) must be inspected prior to importation and requires an import permit from the minister.

In British Columbia, the provincial Animal Disease Control Act applies to net-pen salmon farms, but the bulk of disease regulations are found in the aquaculturist’s licence conditions issued under the federal Pacific Aquaculture Regulations. The Animal Disease Control Act requires a person in possession of diseased fish to notify the inspector and the inspector may quarantine and order disinfection of premises. Morton did not challenge the Animal Disease Control Act, likely because, even before the Pacific Aquaculture Regulations, British Columbia regulated diseases through the aquaculturist’s licence conditions.

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29 SC 1990, c 21, s 197.
30 See ibid at s 199.
31 See ibid at s 91.2
32 See ibid at s 91.2(3).
33 See ibid at s 198
34 CRC, c 812, s 6.
36 RSBC 1996, c 14.
Québec regulations under the *Animal Health Protection Act* also allow a designated veterinary surgeon to enter an aquaculture site to sample fish for IHN, BKD, and furunculosis and may make orders for the control of such diseases including segregation and destruction of fish.\textsuperscript{37} New Brunswick, Nova Scotia and Newfoundland each have specific aquaculture statutes that prescribe disease regulations or contain the requirements directly in the aquaculture statute.\textsuperscript{38} The New Brunswick regulations require testing of fish for BKD, vibrio and other diseases and prohibit movement of fish to other aquaculture sites without conducting proper testing.\textsuperscript{39} Only New Brunswick has regulations specifically targeting sea lice: section 12.1 of the *General Regulation* requires the aquaculturist to report the number of sea lice on a sample of fish and the method and timing of sea lice treatment.\textsuperscript{40} Newfoundland’s disease regulations are contained in a single section that requires the aquaculturist to report the existence of diseases within the site and to “take all measures” that the minister may direct to mitigate the spread of those diseases.\textsuperscript{41} Nova Scotia regulates diseases through a similar section.\textsuperscript{42}

In my view, the provinces can justify animal disease regulations pursuant to the property and civil rights power or the agriculture power. The agriculture power has received little judicial treatment and the scope of the power requires some explanation. The majority of the legislative powers in the *Constitution Act* were given exclusively to either Parliament or the provincial legislatures. There are however, a limited number of *concurrent* heads of power in the *Constitution Act*. One of these heads of power is the

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\textsuperscript{37} *Animal Health Protection Act*, RSQ, c P-42, s 3.2.
\textsuperscript{38} See *Aquaculture Act*, RSNB 2011, c 112, s 13(1)(g); *Aquaculture Act*, RSNL 1990, c A-13, s 6(g); *Fisheries and Coastal Resources Act*, SNS 1996, c 25, s 56(1)(b).
\textsuperscript{39} *General Regulation*, NB Reg 91-158, s 15-21.
\textsuperscript{40} *Ibid*, s 12.1.
\textsuperscript{41} See *Aquaculture Act*, RSNB 2011, c 112, s. 7.
\textsuperscript{42} See *Aquaculture Licence and Lease Regulation*, NS Reg 15/2000, s 9.
power to legislate in relation to agriculture. Section 95 of the Constitution Act states that “[i]n each Province the Legislature may make Laws in relation to Agriculture in the Province ... and it is hereby declared that the Parliament of Canada may from Time to Time make Laws in relation to Agriculture in all or any of the Provinces”. In the event of a conflict between a federal agriculture law and a provincial agriculture law, the federal law takes precedence.

The etymology, dictionary definition, and judicial interpretations of “agriculture” in s. 95 suggest a connection to the land. The word “agriculture” derives from the Latin word agricultura where agri means “field” or “land” and cultura means “cultivation.” The dictionary definition of “agriculture” is “the science or occupation of cultivating land and rearing crops and livestock”. The word “livestock” means “cattle, horses, and similar animals kept for domestic use but not as pets, esp on a farm”.

The word “agriculture” in s. 95 has been interpreted by the courts as having a connection to the land. In R v Manitoba Grain Co, the accused challenged a federal law that prohibited a person from engaging “in the business of selling grain on commission” without a licence. Dennistoun JA held that the law could not be justified as a matter coming within the agriculture power:

The question then arises – is the business of selling grain on commission ... covered by the word “agriculture” in the statute? I do not think it is. “Agriculture,” according to the Century Dictionary, is: The cultivation of the ground; especially, cultivation with the plow and in large areas in order to raise food for man and beast; husbandry; tillage; farming.

In the same case Perdue CJM stated:

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43 Constitution Act, 1867, RSC 1985, App II, No 5, s 95 [Constitution Act].
44 See ibid.
46 Ibid.
47 Ibid, sub verbo “livestock”.
48 See R v Manitoba Grain Co (1922), 66 DLR 406, 37 CCC 346 (Man CA).
No doubt the term “Agriculture” must be given as wide a meaning as the word will naturally convey. It would, no doubt, cover practical husbandry and tillage, the growing of crops, the planting and care of fruit trees, the rearing of domestic animals, the sciences applied to or bearing upon these subjects and perhaps the disposition of the products by the producer; but I do not think it would apply to these products when they have left his hands and become articles of ordinary merchandise.\(^49\)

In *R v Davenport*, the Alberta Supreme Court Appeal Division held that the agriculture power included the power to enact a law prohibiting false statements regarding the age or pedigree of livestock for sale.\(^50\) The Court found the purpose of the impugned law was “to improve the quality of the live stock to be found on the farms of the Dominion.”\(^51\) Similarly, in *R v Bradford Fertilizer Co Ltd*, the Ontario Court of Appeal upheld a federal law prohibiting the sale of fertilizer that did not meet certain standards.\(^52\) The Court found that that the purpose of the law was to improve the quality of the agricultural product and ensure that it could be safely used. Finally, in *Brookes v Moore*, the British Columbia Supreme Court upheld a federal law that appointed a veterinary inspector who could quarantine and destroy diseased animals.\(^53\) The inspector flagged a number of the plaintiff’s horses for destruction. The plaintiff argued that the law was in relation to property and civil rights and that the agriculture power was limited to “tillage of the soil”. In a brief judgment, Morrison J held that the law could be upheld under the POGG power or alternatively, the agriculture power.

Until *Morton*, no case had considered the extension of the agriculture power to aquaculture. In *Morton*, Hinkson J found that British Columbia could not justify its net-pen aquaculture laws on the basis of s. 95 because, in his view, British Columbia itself

\(^{49}\) [1922] MJ No 4 at para 45, 66 DLR 406, 37 CCC 346 (CA).
\(^{51}\) Ibid at para 10.
\(^{52}\) [1972] 1 OR 229 (CA).
\(^{53}\) [1907] BCJ No 18, 4 WLR 110, 13 BCR 91 (SC).
distinguished oyster cultivation from agriculture in the 1912 Oyster Agreement. The 1912 Oyster Agreement was an agreement in which the federal government gave British Columbia jurisdiction to issue exclusive leases to aquaculturists that gave them the exclusive right to their cultured product. The existence of the agreement itself suggested that both levels of government considered oyster aquaculture an exclusively federal matter. No reference was made in *Morton* to the case law interpreting the scope of the agriculture power.

In my view, the ability of the provinces to regulate aspects of aquaculture using the agriculture power should not to turn on the 1912 Oyster Agreement. I agree that the 1912 Oyster Agreement suggests that both levels of government considered the grant of exclusive access to farmed oysters to be a federal responsibility. Indeed, the first federal *Fisheries Act*, enacted in 1868, stated that the minister may grant a lease to a person that gives them the exclusive right to harvest their cultured oysters. A similar provision is contained in the current *Fisheries Act*. However, the agreement and these provisions relate to a particular federal area of responsibility: restricting or interfering with the public right to fish. They all are aimed at ensuring exclusive access to the aquaculturist to her farmed product. As detailed later in this chapter, case law provides that, in certain circumstances, the public may be able to exercise its public right to fish on private land. Therefore, in order to protect oyster aquaculture sites (which were the only commercially significant form of aquaculture at the time of the agreement), the government needed to

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54 See *Morton v British Columbia (Minister of Agriculture and Lands)*, 2009 BCSC 136 at paras 176-80, 192 BCLR (4th) 314 [*Morton*].
55 See *ibid*.
56 31 Vic 60, s 15(4).
57 RSC 1985, c F-14, ss 58-59.
58 See e.g. *Donnelly v Vroom et al*, (1907) 40 NSR 585, 2 ELR 358 (SC); *Belyea v City of St. John* (1920), 51 DLR 495 (NBSC App Div).
restrict the public right to fish and only Parliament had this power. Hence the creation of
the oyster provisions in the *Fisheries Act* and the delegation of this power through the 1912
Oyster Agreement. These provisions did not relate to escapees, pollution, or disease. They
were limited to restricting the public right to fish. In my view, Hinkson J erred by
conflating the inability of the provinces to restrict the public right to fish with the inability
of the provinces to regulate *any* aspect of aquaculture. The constitutional analysis regarding
the agriculture power should have focused on the pith and substance of the impugned
regulations and the scope of the power.

Considering the scope of the agriculture power set out in the above case law, there
are three main arguments against including aquaculture under s. 95 and all of them are
unsatisfactory. First, one may argue that a textual reading of the word “agriculture”
necessarily excludes “aquaculture”. However, dictionary definitions of “agriculture”
generally include “rearing animals”.59 Second, one may argue that aquaculture products
derive their nutrients from the water whereas agriculture products derive their nutrients
from the land. However, both products derive their nutrients from a mix of both the land
and the water.60 Terrestrial plants do not derive their nutrients directly from the soil –
rather, the nutrients in the soil dissolve in water and the plants absorb the water (hence the
existence of hydroponics). Tidal and non-tidal aquaculture products obtain their nutrients
from pellets that contain nutrients derived from the land.61 Indeed it is difficult to discern a
functional difference between tomato hydroponics in which the tomatoes are fed by adding
nutrients into an aqueous medium and net-pen salmon aquaculture in which the salmon are

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ed, sub verbo “agriculture”.
60 I owe this insight to Professor Douglas C. Harris.
fed by adding nutrients into an aqueous medium. Finally, one may argue that agriculture must be limited to food production systems that are situated on-land to have a sufficient connection to the land to be considered “agriculture”. However, a tidal net-pen site anchored to the seafloor uses the land as an anchor point in the same way an on-land container fish farm uses the land merely as a foundation.

Rather than try to draw unworkable distinctions between agriculture and aquaculture, the better approach is to accept that agriculture includes the rearing of fish but also to accept that the agriculture power is a limited power. The agriculture power does not extend to produce that is separated from the cage or “farm gate” and becomes a commodity of trade. It does not include the power to create supply management schemes. It does not include the power to alter interest rate payments to favour farmers in cases of crop failure. The power must also be read in harmony with ss. 91 and 92 of the Constitution Act, 1867 which grant exclusive powers to Parliament and the provincial legislatures. The agriculture power has been limited to improving the quality of agricultural products by creating standards and preventing disease. A law cannot be justified pursuant to s. 95 merely because it involves farms, farmers or even improving the conditions of farmers. As stated by Viscount Simon in A-G Sask v A-G Can (Farm Security):

There was abundant evidence that agriculture is the main industry of Saskatchewan and that it is the principal source of revenue of its inhabitants. It is moreover clear that the result of the impeached legislation, if it is validly enacted, would be to relieve in some degree a

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65 See Davenport, supra note 50, Bradford Fertilizer Co Ltd, supra note 52; Animal Pedigree Act, RSC 1985, c 8; Feeds Act, RSC 1985 c F-9; Fertilizers Act, RSC 1985 c F-10; Health of Animals Act, SC 1990 c 21; Pest Control Products Act, RSC 1985, c P-9; Plant Protection Act, SC 1990, c 22; Seeds Act, RSC 1985, c S-8; Agricultural Produce Grading Act, RSBC 1996, c 11.
certain class of farmers from financial difficulties due to the uncertainties of their farming operations. But, as Rand J. points out, there is a distinction between legislation “in relation to” agriculture and legislation which may produce a favourable effect on the strength and stability of that industry. Consequential effects are not the same thing as legislative subject-matter. It is “the true nature and character of the legislation” - not its ultimate economic results - that matters (Russell v. The Queen, (1882) 7 App. Cas. 829, 840). Here, what is sought to be statutorily modified is a contract between two parties one of which is an agriculturist but the other of which is a lender of money. However broadly the phrase “agriculture in the Province” may be construed, and whatever advantages to farmers the re-shaping of their mortgages or agreements for sale might confer, their Lordships are unable to take the view that this legislation can be regarded as valid on the ground that it is enacted in relation to agriculture.66

This review of the agriculture power shows that, despite its limited scope, the agriculture power includes the power to regulate diseases within a farm. Aquaculture disease regulations could also be considered a matter of property and civil rights within the province.

In my view, the pith and substance of the disease regulations in the Atlantic provinces is to protect farmed product and that this is a valid purpose under the agriculture power and the property and civil rights power. The New Brunswick policy documents behind its disease regulations indicate that the general philosophy of the regulations are “to minimize the risk of disease transfer between aquaculture facilities, while promoting sound fish health practices at individual sites.”67 The structure of New Brunswick’s regulations follows this philosophy by requiring testing and reporting to minimize disease within and between sites. The Nova Scotia and Newfoundland disease regulations are less detailed but

66 A-G Sask v A-G Can (Farm Security), supra note 64 at para 3.
67 Province of New Brunswick, “New Brunswick Marine Aquaculture Finfish Health Policy” (Fredericton: Government of New Brunswick, 2009) at 3, online: Government of New Brunswick <http://www.gnb.ca>. See also British Columbia Ministry of Agriculture and Lands, 2009 Annual Report Fish Health Program (Victoria: Ministry of Agriculture and Lands, 2009) at 6, online: Ministry of Agriculture <http://www.agf.gov.bc.ca> (“The overriding objectives of the provincial Fish Health Program are to monitor and minimise the risks of disease in farmed fish, and to facilitate public and agency confidence that aquaculture health management in BC occurs at a high standard” at 5).
they are nonetheless directed at preventing disease within a site by allowing an inspector to quarantine and destroy infected fish if they are infected with a disease that the inspector considers a significant risk to other fish. 68 Therefore, unlike escapee regulations, the disease regulations are predominantly in relation to protection of farm product. While the provincial regulations benefit wild fish and the protection of wild fish is necessary to prevent transfer of diseases to other sites, these benefits are incidental to the provincial schemes. By contrast, the escapee regulations targeted national concerns such as hybridization which are predominately in relation to protection of wild fish in the public interest as opposed to the protection of farmed product within the province.

The Atlantic disease regulations also stand in contrast to the British Columbia disease regulations that existed before Parliament assumed responsibility. These British Columbia disease regulations were international in character and directed at the protection of wild fish in tidal waters. At that time, before Morton, British Columbia’s aquaculture disease standards were contained in the provincial licence conditions. During the out-migration of wild juvenile salmon into international waters, if the sea lice level were greater than three motile lice per fish, then the minister would require the aquaculturist to implement more intense management actions. 69 When wild adult salmon returned through the same channel, the minister imposed looser management actions because adult wild salmon are already infected with sea lice from the open ocean. 70 Therefore, the sea lice regulatory regime was concerned with the protection of wild fish as they travelled into international feeding waters. The conditions had no rational connection to property or

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68 See Aquaculture Licence and Lease Regulations, NS Reg 15/2000, s 9; Aquaculture Act, RSNL 1990, c A-13, ss 6(b), 7(3)
69 See ibid at 4, 34-35, 55-56.
70 See ibid at 49.
minimization of farm losses. If minimization of farm losses was the main concern, then one would expect stricter management actions during in-migration of infected wild adult salmon and looser management actions during out-migration of uninfected wild smolts.

Despite the wide scope of provincial power in relation to diseases, Parliament should nonetheless enact national disease regulations to govern both disease within the provinces in addition to its current regulations relating to interprovincial and international fish transfers. Canada requires national disease regulations because the current provincial regimes are an uncoordinated patchwork of disease regulations that cannot properly protect aquaculture sites or the wild fishery. While New Brunswick may have admirable disease prevention regulations, the risks posed to its cultured and wild fish also depends on whether all Atlantic provinces adopt similar regulations. Unlike all other jurisdictions, the New Brunswick regulations also manage sea lice.71 Furthermore, the New Brunswick regulations require testing of the reproductive fluids of the brood stock that are used to create the next generation of fish.72 Before fingerlings are taken from on land containers and moved into the net-pen, the aquaculturist must test the fish again.73 Finally, before the aquaculturist can transfer fish from one marine site to another, the aquaculturist must perform further testing and the minister requires extra approvals if the destination for the transfer is in another watershed.74 By contrast, Nova Scotia and Newfoundland enacted a single, vague, reactive, disease regulation: aquaculturists must report the existence of diseases within the site and “take all measures” that the minister may direct to mitigate the spread of those diseases.75

71 See General Regulation, NB Reg 91-158, s 12.1.
72 See ibid, s 21.
73 See ibid, s 15.
74 See ibid, s 16.
75 See Aquaculture Act, RSNL 1990, c A-13, s 7; Aquaculture Licence and Lease Regulation, NS Reg 15/2000, s 9.
The current federal *Animal Health Regulations* and *Fish Health Protection Regulations* do not require testing of the reproductive fluid and only regulate the intra-provincial transfer of fish where there has already been detection of a disease.\(^{76}\) Whereas the federal regulations only require immediate reporting of the most serious diseases, New Brunswick’s regulations require immediate reporting of all contagious diseases.\(^{77}\) Therefore, despite the strong New Brunswick regulations, the risk of a transboundary epidemic remains at the level accepted by its weakest neighbour. The provinces are unable to enact regulations to control sites that operate in other provinces.\(^{78}\) Only Parliament possesses this power under the POGG power and it ought to utilize it in addition to its federal fisheries power to better protect wild fish and aquaculture sites throughout the Atlantic. Indeed, when the federal government assumed responsibility for disease control for aquaculture sites in British Columbia, this development led to a more comprehensive regime.\(^{79}\) This is not a lucky accident since a federal agency that is charged with protection of wild fish and carries inter-provincial and international authority will be best placed to manage the distinct inter-provincial and international character of disease regulations.

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\(^{76}\) See *Fish Health Protection Regulations*, *supra* note 34, s 199.


\(^{78}\) *Interprovincial Co-operatives Ltd v The Queen*, [1976] 1 SCR 477 at 515-16.

\(^{79}\) Compare the disease reporting requirements in Ministry of Agriculture and Lands, “Required Elements of a Fish Health Management Plan for Public and Commercial Fish Culture Facilities in British Columbia” (June 23), online: Ministry of Agriculture and Lands <http://www.al.gov.bc.ca> and Department of Fisheries and Oceans, “Finfish Aquaculture Licence and Conditions of Licence”, online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca> [DFO, “Finfish Aquaculture Licence and Conditions of Licence”].
5.3 Creation of Property Rights in Cultured Fish

New Brunswick, Newfoundland, and Nova Scotia each have legislation explicitly stating that aquaculturists have exclusive property in their cultured fish. All three jurisdictions grant “exclusive property” rights to the “aquaculture product” specified in the licence while the product remains within the boundaries of the leased area. As discussed in the previous chapter, this assignment of rights is unnecessary as the common law grants aquaculturists property rights in their cultured fish. However, there are likely two reasons for the existence of these statutory provisions. First, in the 1980s and 1990s there was uncertainty regarding the extent of personal property rights in cultured fish. Various authors canvassed the issue. As early as 1982, Bruce H. Wildsmith noted:

The single most important legal issue confronting an aquaculturist concerns the nature and extent of his property rights. Every industry (I can think of no legal exceptions) is premised upon property rights which are on the whole clear and well-defined. Financing is dependent upon the security of these rights. Aquaculture is unique in that it depends almost exclusively on property rights, both real and personal, which are either structured against the aquaculturist or are equivocal as to his position. Only where he maintains his stock in artificial structures located on or in his lands do his rights seem clear.

Wildsmith noted that there was a rumour in PEI that a judge had acquitted an accused who allegedly stole fish out of a net-pen suggesting that the judge did not accept that an aquaculturist has property rights in her fish. The name or docket number of the case was not known so this case may never have existed, and Wildsmith concluded that net-pen

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80 See Fisheries and Coastal Resources Act, SNS 1996, c 25, s 60-61; Aquaculture Act, RSNB 2011, c 112, s 22; Aquaculture Act, RSNL 1990, c A-13, s 5(1)-(2).
82 Ibid.
83 Ibid at 94.
salmon within the possession of the aquaculturist are, at common law, the property of the aquaculturist.84

The second likely reason for the creation of these property sections was to extend the aquaculturists rights beyond the common law. Wildsmith suggested that the aquaculturist’s property rights in escaped salmon are unclear at common law. In fact, the weight of case law and commentary suggest that once a salmon escapes, the aquaculturist loses her property in the salmon.85 New Brunswick, Nova Scotia, and Newfoundland extend the property rights of the aquaculturist to its salmon product contained within the boundaries of the leased site, rather than merely salmon within the possession of the aquaculturist. Within the wording of these sections, the aquaculturist would maintain property in escapees so long as they remain within the boundaries of the leased site. Newfoundland and Nova Scotia go even further and extend the aquaculturist’s property rights to escaped fish that remain within 100 metres of the leased area.86 Although these amendments try to solve some of the legal uncertainty regarding escapees, it does not change the practical reality that once a salmon escapes from its net-pen it is unlikely to be caught by another fisher and traced back to the aquaculture site.

In my view, the pith and substance of the escaped fish property rights provisions is to restrict the public right to fish for escapees which are fish that, under the common law, would have been considered wild and available to the public. While the property laws are cloaked in the language of property rights (a matter firmly within provincial jurisdiction), the laws are aimed at people exercising the public right to fish. The laws seek to prevent

84 See ibid at 94-96.
85 See ibid; Kearry v Pattinson, [1939] 1 KB 471, [1939] 1 All ER 65 (CA); Campbell v Hedley (1917), 37 DLR 289, 39 OLR 528 (Ont Sup Ct App Div); Mullett v Bradley (1898), 24 Misc (NY) 695.
86 Fisheries and Coastal Resources Act, SNS 1996, c 25, s 60-61; Aquaculture Act, RSNL 1990, c A-13, s 5(2).
public fishers from catching and keeping escaped salmon. Without such a purpose, the property laws have no real meaning. This purpose falls within the federal fisheries power and is *ultra vires* the provinces. Only Parliament can restrict the public right to fish, regardless of whether the seabed is privately or provincially-owned. As such, only Parliament can alter the common law property rules regarding which fish the public can and cannot catch in tidal waters. The following passage from the Privy Council in *BC Fisheries Reference* makes clear that the provinces do not have sufficient property rights in tidal fisheries to restrict the public right to fish:

> Neither in 1867 nor at the date when British Columbia became a member of the Federation was fishing in tidal waters a matter of property. It was a right open equally to all the public, and therefore, when by s. 91 sea coast and inland fisheries were placed under the exclusive legislative authority of the Dominion Parliament, there was in the case of the fishing in tidal waters nothing left within the domain of the Provincial Legislature. The right being a public one, all that could be done was to regulate its exercise, and the exclusive power of regulation was placed in the Dominion Parliament.

Furthermore, the division between wild fishing and the handling of privately-owned fish was defined by the common law at the time of confederation. The boundaries of provincial authority are informed by the common law that existed at the time of confederation and the provinces cannot alter the boundaries to extend the scope of their constitutional authority to restrict fishing in tidal waters. In *The King v National Trust Co*, Québec attempted to alter the common law regarding the *situs* of intangible property to extend its constitutional authority regarding taxation. Duff CJ stated:

> [S]itus, in respect of intangible property (which has no physical existence) must be determined by reference to some principle or coherent system of principles; and again, the courts appear to have acted upon the assumption

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87 See *Attorney-General for British Columbia v Attorney-General for Canada (No. 2)*, [1913] JCJ No 2 at para 17, 15 DLR 308 at 314-318, [1914] AC 153 (PC) [*BC Fisheries Reference*].

88 *Ibid* at para 18.
that the British Legislature, in defining, in part, at all events, by reference to the local situation of such property, the authority of the province in relation to taxation, must be supposed to have had in view the principles of, or deducible from, those of the common law. (The King v. Lovitt, [1912] A.C. 212; Toronto General Trusts Company v. The King, [1919] A.C. 679; Brassard v. Smith, [1925] A.C. 371; Royal Trust Co. v. Attorney General for Alberta, [1930] A.C. 144).

We think it follows that a provincial legislature is not competent to prescribe the conditions fixing the situs of intangible property for the purpose of defining the subjects in respect of which its powers of taxation under s. 92(2) may be put into effect.89

Only Parliament can restrict the public right to fish. Therefore, the east coast laws that seek to restrict the public right to fish by placing “exclusive” property rights in escaped salmon are likely ultra vires.

5.4 Regulation of the Physical Net-Pen Structure

Provinces have the power to regulate occupational health and safety on fishing vessels and likely on aquaculture platforms as well. This may include such measures as establishing fire and flooding procedures or requiring that certain stability standards are met.90 Québec appears to have already enacted worker safety regulations for aquaculturists.91 The Québec regulations regulate the storage of treatments92 and require that the operators can safely access the platform.93 The Newfoundland regulations require aquaculture sites to place lights and markers on certain portions of the site for “the purpose of identification of aquaculture sites which are covered by water”.94 The Nova Scotia regulations require the

89 [1933] SCR 670.
91 Commercial Aquaculture Regulations, RRQ c A-20.2, r 1, s 28.
92 Ibid.
93 Ibid.
94 Aquaculture Regulations, CNLR 1139/96, s 4.
aquaculturist to mark its lease site with “cautionary” yellow buoys.\textsuperscript{95} New Brunswick, on the other hand, has no requirements in legislation or regulation regarding the design or markings of aquaculture structures.

Parliament also has jurisdiction to regulate the net-pen structure for the purpose of protecting the public right of navigation pursuant to s. 91(10) of the \textit{Constitution Act}. In tidal waters, the public has a right of navigation under the common law.\textsuperscript{96} In Canada, this public right was extended to non-tidal waters (such as inland lakes and rivers) that could be used for transportation.\textsuperscript{97} Only Parliament can enact laws to restrict the public right of navigation.\textsuperscript{98} Parliament removes the public right of navigation for the building of structures, such as net-pen sites, by issuing permits under the \textit{Navigable Waters Protection Act}.\textsuperscript{99} In addition, the federal government can attach conditions to the NWPA permit.\textsuperscript{100} Currently, Transport Canada issues NWPA permits to net-pen sites and typically includes as a condition in the permit that the aquaculturist place markers at the boundaries of the site to protect the navigation of others.\textsuperscript{101} Such conditions manage the impact on the public right of navigation.

\textsuperscript{95} \textit{Aquaculture Licence and Lease Regulations}, NS Reg 15/2000, s 3-4.
\textsuperscript{96} See \textit{Friends of the Oldman River Society v Canada (Minister of Transport)}, [1992] 1 SCR 3 at para 68.
\textsuperscript{97} See \textit{ibid}.
\textsuperscript{98} See \textit{ibid}.
\textsuperscript{100} See \textit{ibid}.
\textsuperscript{101} See \textit{ibid}.
5.5 Predator Control

Seals, sea lions, and birds are the principal predators of net-pen salmon. Seals and sea lions are known to tear nets to access fish. In New Brunswick, seal predation is estimated to cost aquaculturists millions of dollars a year. Net-pens are typically sheltered from avian predators by a net hanging over top of the arrays. However, on-land aquaculture sites suffer most from birds such as herons.

The federal government regulates predator control for net-pen sites across Canada. Outside of British Columbia, an aquaculturist can apply for a Nuisance Seal Licence under s. 4(1) of the Marine Mammal Regulations. In British Columbia, the authority to kill predators is included in the licence authorizing the activity of aquaculture under the Pacific Aquaculture Regulations. The licence permits the killing of nuisance seals and the conditions of the licence specify the method of killing.

Parliament possesses exclusive authority to licence the killing of marine animals for the purpose of improving the yield of aquaculture sites. Marine animals are part of the tidal fishery and therefore their destruction is an exclusively federal matter. Under the federal

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102 See David J Bevan, Kristopher P Chandroo & Richard D. Moccia, “Predator Control in Commercial Aquaculture in Canada” AEC Order No 02-001, September 2002 at 1, online: University of Guelph <http://www.aps.uoguelph.ca>.
103 See ibid.
104 See ibid.
105 See ibid at 2.
106 See ibid at 1.
107 SOR/93-56; Fishery (General) Regulations, SOR/93-53, s 22(1).
109 See ibid.
*Fisheries Act*, “fish” includes marine animals.\(^{111}\) Furthermore, in *Kwicksutaineuk/Ah-kaw-mish Tribes v Canada (Minister of Fisheries and Oceans)*, Rouleau J held that marine mammal licences are validly created under the *Fisheries Act* even if the killed seals are not consumed or sold.\(^{112}\) In *Kwicksutaineuk/Ah-kaw-mish Tribes* the two First Nations applied for judicial review of DFO’s decision to issue a licence to an aquaculturist to kill seals and sea lions.\(^{113}\) They argued that the *Fisheries Act* did not provide the authority to the Minister to issue a licence to kill seals for non-consumption and non-sale.\(^{114}\) Rouleau J held that this argument did not establish a reasonable cause of action and dismissed the application for judicial review.\(^{115}\) After referring to the definition of “fishing” in the *Fisheries Act* and the case law, he found that “fishing” does not require use or exploitation of the fish caught.\(^{116}\) While certain fishing regulations prohibit the “wasting” of fish caught, these regulations exclude seals and sea lions.\(^{117}\)

Parliament’s authority also extends to the regulation of “acoustic harassment devices” (“AHDs”) to repel seals and sea lions. These devices generate underwater sounds irritable or painful to seals and sea lions.\(^{118}\) These devices have become increasingly more powerful (up to 240dB)\(^{119}\) such that recent studies have shown they could be heard by

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\(^{111}\) RSC 1985, c F-14, s 2; *Marine Mammal Regulations*, supra note 107; *Fishery (General) Regulations*, supra note 107, s 22(1).

\(^{112}\) *Kwicksutaineuk/Ah-kaw-mish Tribes v Canada (Minister of Fisheries and Oceans)*, 2003 FCT 30 [Kwicksutaineuk/Ah-kaw-mish Tribes]; aff’d *Kwicksutaineuk/Ah-kaw-mish Tribes v Canada (Minister of Fisheries and Oceans)*, 2003 FCA 484, leave to appeal to SCC refused [2004] SCCA No 55.

\(^{113}\) Ibid.

\(^{114}\) Ibid at para 11.

\(^{115}\) Ibid at paras 19, 29.

\(^{116}\) Ibid.

\(^{117}\) See *Fishery (General) Regulations*, supra note 107, s 34; *Marine Mammal Regulations*, supra note 107, s 10(2).

\(^{118}\) See GS Jamieson & PF Olesluk, “Salmon Farm – Pinniped Interactions in British Columbia: An Analysis of Predator Control, its Justification and Alternative Approaches”, online: Department of Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca>.

\(^{119}\) See *ibid*.  

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porpoises up to 40-60km from the aquaculture sites. In addition to the acoustic pain inflicted on seals and nearby cetaceans, studies have also shown that they decline in effectiveness over time. As a result, DFO has been phasing out and prohibiting their use.

Bird predators are more common for on-land aquaculture, but they are nonetheless a threat to net-pen sites. The power to create laws in relation to the killing of migratory birds falls within federal power. To kill or scare migratory birds, an aquaculturist requires a kill or scare permit under the Migratory Birds Convention Act. The destruction of other types of birds is an exclusively provincial matter pursuant to the province’s power over property and civil rights. The two most common aquaculture avian predators for on-land aquaculture are herons and cranes, both migratory birds. Therefore, regulation of aquaculture predators is primarily a federal matter.

5.6 Siting and Use of the Seafloor

Finfish net-pen sites are anchored to the seafloor. With the exception of federal lands such as national parks, the seafloor in tidal waters within the province is generally provincial property. While Parliament has exclusive jurisdiction to regulate the effects on fish in tidal waters, the case law has long recognized that provinces have exclusive authority to regulate the use of the seafloor. This is true of fishing activities that attach structures to the

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120 See ibid.
121 See ibid.
122 See ibid.
123 See R v JD Irving (2008), 37 CELR (3d) 200 (NBPC).
126 See Migratory Birds Convention Act, supra note 124, Schedule.
127 See e.g. BC Fisheries Reference, supra note 87.
Therefore, in order to use the seafloor, aquaculturists require a grant of ownership to the seafloor or, more commonly, a lease from the provincial Crown. All coastal provinces have specific provisions through which the provincial Crown leases the seafloor to aquaculturists. Such provisions are safe from constitutional challenge. Even Hinkson J in Morton stated that the provincial leases of the provincial seabed for aquaculture uses are *intra vires* the province.

However, the approval of the siting of an aquaculture operation requires more than provincial approval of the use of the seafloor. The siting of net-pen sites is further regulated to minimize conflicts with other stakeholders in the proposed site. Net-pen sites in tidal waters within the province affect three federal subjects: the public right to fish in tidal waters, the public right of navigation in tidal waters, and the conservation of wild fish. The effects on the public right to fish and the public right of navigation are discussed in the next section. Siting also has a critical effect on the conservation of wild fish. For example, net-pen sites are believed to incubate diseases and parasites and therefore the Cohen Commission recommended a moratorium on net-pen activity along wild salmon migratory routes.

The post-Morton division of responsibilities in British Columbia presents a good example of how legislative power over net-pen siting should be divided. After Morton, the federal government began to regulate aquaculture but British Columbia retained jurisdiction over the use of the seabed. Therefore in British Columbia, the aquiculturist needs a licence

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128 See *ibid* at para 16.
129 See e.g. *Aquaculture Act*, RSNB 2011, c 112, s 33; *Fisheries and Coastal Resources Act*, SNS 1996, c 25, s 52.
130 See *Morton*, supra note 54 at para 172.
from the federal government (which regulates the activity of aquaculture)\textsuperscript{132} and a lease from the province (which authorizes the use of the seabed).\textsuperscript{133} Once the federal licence and provincial lease are granted, the aquaculturist has a certain bundle of property rights. The provincial lease provides the right to exclusive use of the land, and the right to modify the land, and construct rafts and net cages.\textsuperscript{134} The standard duration of the lease is five years, and the aquaculturist can renew the lease and mortgage it.\textsuperscript{135} By contrast, the federal licence “confers, subject to provisions of the Fisheries Act and Regulations made thereunder, the authority to carry out aquaculture activities including cultivation and harvest of fish and prescribed activities under the conditions”.\textsuperscript{136} In particular, the federal licence “authorizes the licence holder to cultivate and harvest the species listed as part of the "Species" section on the face of this licence”.\textsuperscript{137} This division between the authority granted in a lease and licence is loyal to the division between legislation in relation to property and legislation in relation to the preservation of fish in the public interest. By contrast to British Columbia, the remaining coastal provinces issue an aquaculture licence in addition to the land lease. These licences, as discussed in the previous chapter, are vulnerable to constitutional challenge.

\textsuperscript{132} See \textit{Pacific Aquaculture Regulations}, SOR/2010-270.
\textsuperscript{133} See \textit{Land Act}, RSBC 1996, c 245.
\textsuperscript{135} See \textit{ibid}.
\textsuperscript{136} See DFO, “Finfish Aquaculture Licence and Licence Conditions”, \textit{supra} note 79.
\textsuperscript{137} See \textit{ibid}.
5.7 Interference with the Public Right to Fish

As discussed earlier in this chapter, provincial legislation that creates property rights in escaped fish is likely *ultra vires*\(^{138}\) because it creates an exclusive fishery and only Parliament can enact competent legislation to create an exclusive fishery in tidal waters.

A separate issue arises with respect to aquaculture and the public right to fish. Without federal legislation granting aquaculturists the right to interfere with the public right to fish, aquaculturists may be liable in nuisance for interfering with wild fishers. At common law the public has a right to fish in tidal waters. This doctrine is said to originate from the *Magna Carta* signed in 1215. Only Parliament has the authority to remove the public right to fish in tidal waters.\(^{139}\) The occupation and use of a provincially leased seabed in tidal waters does not necessarily remove the public right to fish in those waters.\(^{140}\) In *Donnelly v Vroom et al*, the Nova Scotia Supreme Court held that a Crown grant to the seabed does not limit the public right to fish in the area.\(^{141}\) Vroom owned a farm adjacent to the ocean and also possessed a Crown grant to the seabed of the foreshore. Vroom observed Donnelly digging clams from Vroom’s seabed and Vroom sued him in conversion.\(^{142}\) The Court denied the claim and held that the public had a right to dig clams despite the Crown grant.\(^{143}\) Similarly, in *Belyea v City of St. John*, the plaintiff had a private lease to the foreshore for a fish curing operation. The plaintiff claimed that this granted him an exclusive fishery. The New Brunswick Supreme Court (Appeal Division) disagreed:

The settled law of the realm appears to be that ... [w]ithin the territorial waters, subject to the ebb and flow of the tides, the public, being subjects of the realm, are entitled to fish, except where the Crown, or some object

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\(^{138}\) See subsection in this chapter entitled “Creation of Property Rights in Cultured Fish”.

\(^{139}\) See *BC Fisheries Reference*, supra note 87.

\(^{140}\) See *Meisner v Fanning* (1842), 2 NSR 97 (SC) at 99; Saunders & Finn, supra note 81 at 120.

\(^{141}\) (1907) 40 NSR 585, 2 ELR 358 (SC).

\(^{142}\) *Ibid*.

\(^{143}\) *Ibid* at para 24.
of the Crown has gained a proprietary exclusive of the public right, or Parliament has restricted the common law rights of the public.  

The rule was succinctly and conclusively stated by the Judicial Committee of the Privy Council in the *BC Fisheries Reference*:  

Since the decision of the House of Lords in *Malcomson v. O’Dea*, 10 H.L.C. 493, it has been unquestioned law that since *Magna Charta* no new exclusive fishery could be created by Royal grant in tidal waters, and that no public right of fishing in such waters, then existing, can be taken away without competent legislation.  

While the provinces can grant exclusive tenures to the seabed, those tenures cannot remove the public’s right to fish in the water column above the seabed. In *BC Fisheries Reference* the Privy Council stated:  

Interference with [the public right to fish in tidal waters], whether in the form of direct regulation or by the grant of exclusive or partially exclusive rights to individuals or classes of individuals, cannot be within the power of the province, which is excluded from general legislation with respect to sea coast and inland fisheries.  

On the east coast, there is no federal legislation to remove or restrict the public right to fish. Even in British Columbia, the federal *Pacific Aquaculture Regulations* do not explicitly give the aquaculturist the right to exclude others from fishing in her site. As part of the federal application process, the aquaculturist receives a permit under the *Navigable Waters Protection Act* that allows her to interfere with the public right of navigation. But there is no parallel federal legislation that allows aquaculturists to interfere with the public right to fish. The *Pacific Aquaculture Regulations* were created under s. 43(a) of the *Fisheries Act* which provides the Minister with the authority to create regulations “for the

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144 *Belyea v City of St. John* (1920), 51 DLR 495 (NBSC App Div) at 497.  
145 *Supra* note 87 at 317.  
146 See ibid, Saunders & Finn, *supra* note 81 at 136.  
148 The exception to this proposition is federal oyster leases: section 58 of the *Fisheries Act*, RSC 1985, c F-14, grants oyster aquaculturists exclusive rights to the oysters in leased areas.
proper management and control of the sea-coast and inland fisheries".149 In the wild harvest fishing context, Cabinet is able to restrict the public right to fish through s. 43(c), which allows Cabinet to regulate, among other things, the “catching ... of fish”.150 Subsection 43(a) does not contain the same explicit power to restrict the public right to fish as s. 43(c). While s. 43(a) may provide adequate authority to regulate aspects of aquaculture that harm the fisheries, it is less clear that it gives Cabinet the authority to restrict the public right to fish. Some authors suggest that Parliament must enact an explicit statutory power to licence aquaculture sites that clearly restrict the public right to fish.151 In any case, even if a court found that the Pacific Aquaculture Regulations remove the right to fish, the Pacific Aquaculture Regulations only apply in British Columbia. None of the east coast provinces have implemented any competent federal laws, statutory or regulatory, to interfere with the public right to fish. Only the federal government can do so and the federal government has chosen to limit its involvement to British Columbia.

There are two possible negative consequences of the continued existence of the public right to fish in aquaculture net-pen sites. First, the cases of Donnelly and Belyea suggest that the public can fish shellfish from the seabed despite a valid aquaculture tenure over the seabed. While this may be true, these cases apply to a very limited form of shellfish aquaculture wherein shellfish are planted in the foreshore indistinguishable from wild shellfish (only clams and some forms of oyster and scallop are farmed this way and even these species can be separated from the wild fishery through the use of conspicuous structures as in Foster v Warblington Urban Council).152 In regards to net-pen aquaculture,

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149 Pacific Aquaculture Regulations, SOR/2010 270; Fisheries Act, RSC 1985, c F-14, s 43(a).
150 Ibid, s 43(c).
151 See Saunders & Finn, supra note 81 at 143-44.
152 [1906] 1 KB 648, [1904-07] All ER 366 (CA) [Foster].
the continued existence of the public right to fish does not mean that a fisher can simply pull their boat up next to a net-pen site and lawfully fish the cultured salmon out of the site. Even in the absence of an exclusive fishing right for the aquaculturist, such an action by the fisher would be unlawful. The aquaculturist has possession of her cultured fish, so the cultured fish are her property. As noted by the Fletcher Moulton LJ in *Foster*, the cultured fish are not part of the “fishery”.153 A fisher’s attempt to take cultured salmon from the net-pen is not “fishing” the common resource or the exercise of his public right to fish; it is attempted theft.154 While the aquaculture operation may restrict the public right to fish, the remedy for the public is not to fish out the net-pen site; rather, the remedy is to bring a private action in public nuisance.

The second possible negative consequence is the aquaculturist’s constant exposure to a private action in public nuisance. A person commits an enjoinable public nuisance if he or she restricts or impedes the public right to fish. Net-pen aquaculture interferes with the public right to fish in a non-trivial way. Because net-pen sites are close to the shore, there is little interference with finfish troll and trawl fishers; they have the same access to their target wild fish as before the establishment of a net-pen site. Net-pen sites are unlike the exclusive fishery in *Robertson* that excluded fishers from an entire portion of a river.155 Net-pen sites are relatively confined and exclude wild fish from their pens. However, commercial prawn, crab and lobster fishers could likely make a meaningful case of public nuisance. Putting aside issues with the effects of SLICE on shellfish (which in itself could constitute a public nuisance), the occupation of the seabed and the water column may meaningfully interfere with shellfish fishers. These fishers lay traps along the seafloor,

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154 See e.g. *State of Ohio v Shaw* (1902), 65 NE 875.
155 *The Queen v Robertson* (1882), 6 SCR 52 at 120-24 [*Robertson*].
often in proximity to shore. In addition, there are preferred fishing grounds that are known to be more abundant than others. Aquaculture sites in those areas would impede any public fishing as it would be difficult to place and retrieve traps under the site. In practice, however, litigation is unlikely given its cost and the fact that even large net-pen sites present a relatively small obstacle even to shellfish fishers. In addition, fishers may be barred standing from a private action in public nuisance without permission of the attorney general unless the fisher can establish harm different in kind from the rest of the public.\textsuperscript{156} It is unclear whether a shellfish fisher could meet this standard as the impairment of their rights differs only in degree to other fishers. In addition, the fishers would have difficulty establishing damages given that there are a number of studies that suggest that net-pen sites increase the abundance of sea life around the net pen because of uneaten feed flowing into surrounding waters.\textsuperscript{157}

Overall, net-pen sites across the country interfere with the public right to fish and no explicit legislation exists permitting such an interference. In practice, the interference with the public right to fish is unlikely to result in a flood of litigation. However, this uncomfortable legal position may dissuade the aquaculture industry because the aquaculturist is exposed to potential litigation by interest groups who might use this legal issue to hinder an aquaculture operation. The aquaculture industry is often at odds with harvest fishers and environmental groups. Aquaculture opponents may use such litigation


\textsuperscript{157} See e.g. DN Carss, “Concentrations of wild and escaped fishes immediately adjacent to fish farm cages”, (1990) 90 Aquaculture 29-40.
strategically to gain support for the movement of net-pen sites into on-land closed containment structures.

If the government or the aquaculture industry wants to avoid such litigation, Parliament should create explicit statutory provisions authorizing aquaculture activities that impede or restrict the public right to fish. No such provisions exist, explicit or implicit, on the east coast. Although Parliament has created aquaculture licences in British Columbia, Parliament has not explicitly authorized interference with the public right to fish through legislation.

5.8 Chapter Summary
This chapter analyzed the constitutionality of common aquaculture laws that exist on the east coast. I found that disease management regulations in the Atlantic provinces are likely *intra vires* but I argued for a stronger set of federal disease prevention regulations. I also found that there is significant provincial scope to create aquaculture safety regulations and seafloor leasing regulations. By contrast, I found that the east coast aquaculture laws that create property rights in escaped fish are likely *ultra vires*. This chapter also explored the effect of aquaculture on the public right to fish and concluded that wild fishers may bring a private action in public nuisance against aquaculturists that impair their right to fish and recommended that Parliament enact an explicit statutory provision that permits aquaculturists to interfere with the public right to fish.
Chapter 6: Federal Lands and the Territorial Boundaries of the Provinces

6.1 Introduction

This chapter describes the relevance of territorial issues to aquaculture regulations. First, I describe the impact of the federal powers in relation to federal land, public harbours and aboriginal reserves on federal and provincial aquaculture laws. Next I explain the importance of recognizing the territorial boundaries of the provinces and I identify current issues with provinces regulating aquaculture outside their territorial jurisdiction.

6.2 Net-Pen Sites on Federal Land, Public Harbours and Aboriginal Land

In waters over federal land and public harbours the provinces have no power to regulate net-pen aquaculture activities pursuant to s. 92(5) of the Constitution Act which provides the province with the power to manage its own public lands.\(^1\) Therefore, as opposed to other tidal waters within the province, the power to lease the seabed on federal land and public harbours is exclusively federal. The provinces still retain the power to legislate in relation to their personal property on federal land pursuant to their general power under s. 92(13) in relation to property and civil rights.\(^2\)

The federal government’s power to issue aquaculture leases for federal land, such as national parks, is largely unimportant because there is little opportunity for aquaculture development in those areas. Similarly, many public harbours have been divested to the provinces.\(^3\) The federal power over public property such as public harbours does not apply

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\(^2\) See ibid, ch 29 at 2-3.

\(^3\) Transport Canada, “Transfer Inventory” online: Transport Canada <http://www.tc.gc.ca>. Parliament’s authority over public harbour derives from its power in s. 91(1A) over “public…property” and s. 108 deems public harbours to be the property of Canada.
unless Canada maintains some element of ownership over it. In my view the most important category of land for future aquaculture development, other than provincial tidal lands, is aboriginal land. Aquaculture has become an important source of income for aboriginal peoples: 95% of aquaculture jobs are in rural or coastal areas and the four major salmon aquaculture companies in British Columbia all have agreements with coastal First Nations. In the remote central British Columbian coastal First Nation community of Klemtu, 45% of employment derives from salmon aquaculture compared to 9% in the wild fishery. The Comox First Nation on Vancouver Island own Pentlach Seafoods which manages an oyster shellfish aquaculture site and employs over 20 full-time people and produces over 2 million oysters a year for sale to Asian and North American markets.

Under s. 91(24) of the Constitution Act, Parliament possesses exclusive legislative jurisdiction in relation to “Indians and lands reserved for Indians”. “Lands reserved for Indians” include the large amount of territory reserved for aboriginal peoples in the Royal Proclamation of 1763. “Land reserved for Indians” also includes “aboriginal title” lands. “Aboriginal title” may exist outside of reserves on the basis that aboriginal people occupied the area first.

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5 See Department of Fisheries and Oceans, “Aquaculture: Communities and Employment” online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca>.
7 See ibid.
9 Constitution Act, supra note 1, s 91(24).
Provincial jurisdiction over aquaculture operations on lands used by First Nations is limited in four important ways. First, provincial laws in relation to leasing land for aquaculture use would not likely apply on reserve land because the occupation and possession of reserve land is a central aspect of Parliament’s power over lands reserved for Indians. Furthermore, First Nations are the beneficial owners of their reserves. Second, on “aboriginal title” land, the title provides its holder with the right to exclusive use and occupation of the land which could therefore exclude any unwanted aquaculture operations. However, no Canadian court has granted aboriginal title to the seabed and the Australia High Court has held that aboriginal title could only extend to the low tide mark. Third, outside Indian reserves and “aboriginal title” land, First Nations may possess fishing rights in proposed aquaculture waters. If an aboriginal group could establish aboriginal title in the seabed or aboriginal rights to fish in the proposed waters, both aboriginal title and aboriginal rights are protected by s. 35 of the Constitution Act, 1982. Even where aboriginal title or an aboriginal right relating to the proposed leased seabed has not yet been made out, the provincial Crown may have a duty to consult with First Nations “proportionate to a preliminary assessment of the strength of the case supporting the

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12 In relation to natural resources in general, see: Woodward, Native Law, looseleaf (consulted on 10 October 2013) (Toronto: Carswell, 1994) ch 4 at 18.
13 See ibid, ch 4 at 20; Derrickson v Derrickson, [1986] 1 SCR 285. Paul v Paul, [1986] 1 SCR 306. See also Woodward, supra note 12, ch 4 at 21 (“Section 88 of the Indian Act does not invigorate provincial residential tenancy laws on reserve. Section 88 of the Indian Act is directed only to ‘Indians’ and not to Indian lands and therefore s. 88 cannot be invoked to cause provincial residential tenancy legislation to apply on reserve”);
existence of the right or title, and to the seriousness of the potentially adverse effect upon the right or title claimed”.20

6.3 The Territorial Boundaries of the Coastal Provinces

The provinces have no jurisdiction to regulate net-pen aquaculture sites that exist outside their territorial boundaries. All aspects of such extra-territorial sites would be under exclusive federal jurisdiction. The preceding discussion regarding the provincial and federal jurisdiction to regulate net-pen aquaculture has assumed that net-pen sites are within the boundaries of the province.

This is likely a good assumption in British Columbia. The exact boundaries of the provinces are determined by the instruments that created the provinces.21 If the instruments are unclear, then the courts look to “the terms of union with Canada (where applicable), to any modifications of the boundaries after confederation under s. 3 of the Constitution Act, 1871, and to judicial decisions on boundaries”.22 If there is no evidence of an intention to form a particular provincial boundary, then the provincial boundary ends at the low tide mark23 with the exception of those areas of seabed “between the jaws of the land” such as bays and estuaries.24 The aquaculture sites on the west coast of Vancouver Island all appear to be within the jaws of the land.25 Those sites between Vancouver Island and the mainland

22 See Hogg, supra note 1, ch 13 at 5, n 140.
23 See ibid, ch 13 at 5.
24 See ibid.
are also within provincial jurisdiction. In the *Strait of Georgia Reference*, the Supreme Court of Canada held that the United Kingdom statute that established British Columbia included the waters between Vancouver Island and the mainland.\textsuperscript{26} Therefore, the case law has sufficiently defined the provincial boundaries of British Columbia to conclude that west coast aquaculture sites fall within the province.

On the east coast, the assumption that net-pen sites fall within the boundaries of the province is also generally well-founded, with the exception of Québec. The general rule that the boundary ends at the low-tide mark with the exception of areas within the jaws of the land was reaffirmed by the Supreme Court of Canada in *Reference re Newfoundland Continental Shelf* in which the Supreme Court denied Newfoundland’s claim to the continental shelf of the province.\textsuperscript{27} The Supreme Court of Canada has not ruled on the boundaries of the other east coast provinces, but the general rule applies to those provinces as well absent contrary intentions in the province’s boundary creating instruments. Maps of aquaculture sites along the east-coast are publicly available and indicate that all the aquaculture sites in PEI,\textsuperscript{28} Nova Scotia,\textsuperscript{29} New Brunswick,\textsuperscript{30} and Newfoundland\textsuperscript{31} appear to fall between the jaws of the land.

\textsuperscript{26} *Supra* note 21.  
\textsuperscript{27} [1984] 1 SCR 86.  
\textsuperscript{28} See Department of Fisheries and Oceans, “PEI AL Home: Maps” online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca>.  
\textsuperscript{29} See Nova Scotia Department of Aquaculture and Fisheries, “Aquaculture sites of Nova Scotia” online: Nova Scotia Department of Fisheries <http://www.nsgc.gov.ns.ca>.  
\textsuperscript{31} See Newfoundland Department of Fisheries and Aquaculture, “Aquaculture: Aquaculture Sites” online: Newfoundland Department of Fisheries and Aquaculture <http://www.fishaq.gov.nl.ca>.
By contrast, Québec appears to regulate aquaculture sites outside its territorial jurisdiction. From DFO’s site maps of aquaculture sites in Québec, Québec regulates two shellfish sites approximately 15 kilometres off the east coast of les îles-de-la-Madeleine.32 Les îles-de-la-Madeleine first became part of the province of Québec in 1774 through the Quebec Act.33 Various authors have concluded that the low-tide mark of the eastern shore of les îles-de-la-Madeleine marks the easternmost point of the province of Québec.34 These views accord with the Supreme Court of Canada decisions in Georgia Strait Reference and Reference re Newfoundland Continental Shelf:35 While the regulation by Québec of two offshore aquaculture sites may not provoke a reference to the Supreme Court of Canada, those two aquaculturists may be effectively immune from prosecution for violating Québec’s aquaculture laws.

6.4 Chapter Summary

In this chapter I found that Parliament’s power over federal lands and public harbours could provide greater scope for federal aquaculture laws in those areas but in practice there is little opportunity for aquaculture in those areas. By contrast, there is a greater potential for

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32 See Department of Fisheries and Oceans Canada, “Aquaculture: Map of Aquaculture Sites” online: Fisheries and Oceans Canada <http://aquaculture.qc.dfo-mpo.gc.ca>.
33 14 Geo III, c 83.
34 See Henri Brun, Le territoire du Québec: six études juridiques (Ville de Québec: Les Presses de l’Université Laval, 1974) (“Québec did not enter Confederation with a territorial sea” at 234. “It includes finally, the coastal islands of Labrador, including the island of Anticosti, and les îles de la Madeleine, up to the low tide mark in each case” at 240 [translated by author]); Henri Brun, “Le territoire du Québec: à la junction de l’histoire et du droit constitutionnel” (1992) 33 C de D 927 at 931 (“The Quebec Act is silent on the question of whether, in 1774, Quebec included a territorial sea on its east coast. According to the Supreme Court of Canada, it seems necessary to conclude that the notion of a territorial sea did not exist during that period of British law.” [translated by author]); Jeffrey J Smith, “Notre Mer? An Independent Québec’s Maritime Claims in the Gulf of St. Lawrence and Beyond” (1997) 35 Can YB Intl L 113 at 122; Jonathan I Charney, “The Maritime Boundaries of Québec” (Paper delivered to the Secretariat of the Committees on the Process for Determining the Political and Constitutional Future of Québec of the Québec National Assembly, 9 April 1992) at 499 [unpublished] (“Based on the above-identified cases, it appears that Quebec did not hold rights in the territorial sea, continental shelf, or exclusive economic zone prior to joining Canada and that no agreement specially preserving those areas for Quebec was made.”).
35 Strait of Georgia Reference, supra note 21; Reference re Newfoundland Continental Shelf, supra note 27.
aquaculture on aboriginal lands and provincial power over aquaculture is more limited on aboriginal lands rather than on provincial public land. Finally, I found that, while the vast majority of aquaculture sites fall within the “jaws of the land”, some sites have strayed outside the boundaries of the provinces.
Chapter 7: The Jurisdiction to Regulate Other Forms of Aquaculture

7.1 Introduction

The preceding discussion was mainly limited to tidal net-pen aquaculture. While the majority of aquaculture value derives from tidal net-pen sites, significant production nonetheless occurs in other forms.

Different types of aquaculture exist in different geographies and environments. Other than tidal net-pen aquaculture, the constitutionality of the regulation of the remaining forms of aquaculture has not been judicially considered. While these forms of aquaculture are not as constitutionally complex as tidal net-pen sites, they each involve unique issues. This chapter analyzes the constitutional issues that arise in relation to two forms of non-tidal aquaculture: (1) On-land closed containment; and (2) freshwater net-pen. This chapter also analyzes the constitutional issues that arise in relation to six forms of tidal aquaculture: (1) raft/long-line shellfish; (2) seafloor shellfish; (3) marine plant; (4) closed containment tidal; (5) offshore; and (6) sea ranching.

7.2 Non-Tidal Sites

7.2.1 On-Land Closed Containment Trout, Arctic Char and Salmon Aquaculture

On-land closed containment facilities contain fish in large, above-ground containers or in dug-out ponds. The total value of trout production in Canada is approximately $35 million, which is approximately 5% of total aquaculture value in Canada.1 Approximately 25% of all trout production derives from on-land containers whereas the remainder, as discussed

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1 See Department of Fisheries and Oceans, “2011 Canadian Aquaculture Production Statistics ($000)”, online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca> [DFO, “2011 Canadian Aquaculture Production Statistics ($000)”].
later in this chapter, derives from net-pen sites in lakes.\(^2\) Significant amounts of Arctic char are also produced in on-land containers and include facilities in the Yukon.\(^3\) For salmon, there are only experimental on-land closed containment production facilities.\(^4\) On-land closed containment is also used to rear fingerling salmon before they are placed in net-pen sites or released into the wild as part of enhancement programs.\(^5\)

Environmental groups favour closed containment facilities because they separate farmed fish from wild fish, lowering the risks of escapees and disease.\(^6\) However, these sites consume large amounts of fresh water (100 litres per kilogram of fish production)\(^7\) and large amounts of energy to remove wastes and control oxygen, salinity and temperature levels.\(^8\) A recent DFO study found that the return on investment of a net-pen salmon site is 52% compared to 4% for an on-land system.\(^9\)

In my view, management of closed containment systems are within exclusive provincial jurisdiction pursuant to s. 92(13) of the \textit{Constitution Act}. Unlike tidal net-pen sites, there are no concerns regarding the preservation of wild fish to trigger the federal fisheries power under s. 91(12). The method of production eliminates the need for escapee or disease regulations with regards to wild fish. Any pollution or animal health regulations

\(^3\) See Department of Fisheries and Oceans, \textit{Aquaculture in Canada: Facts and Figures – Part 2}, (Ottawa: Fisheries and Oceans Canada, 2008) online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca> [DFO, “Facts and Figures”].
\(^6\) See e.g. Coastal Alliance for Aquaculture Reform, “Solutions: Closed Containment” online: Coastal Alliance for Aquaculture Reform <http://www.farmedanddangerous.org>; Save Our Salmon, “Solutions – Closed Containment” online: Save Our Salmon <http://www.saveoursalmon.ca>.
\(^7\) See Boulet, Struthers, & Gilbert, \textit{supra} note 4 at 18.
\(^8\) See \textit{ibid} at 30-32.
\(^9\) See \textit{ibid} at vi, 30.
can be drafted under a provincial regime in a similar manner to the pollution and animal health concerns that flow from other on-land animal production industries.

DFO has also apparently recognized that the provinces take exclusive provincial jurisdiction for types of aquaculture that do not have direct effects on wild fish. The Pacific Aquaculture Regulations limits their scope to:

(a) the territorial sea of Canada off the coast of British Columbia;
(b) the internal waters of Canada off the coast of British Columbia that are not in that province;
(c) the internal waters of Canada in British Columbia; and
(d) any facility in British Columbia from which fish may escape into Canadian fisheries waters.10

Across Canada, the provinces regulate on-land containment sites. In my view, given the lack of a direct effect on wild fisheries, these regulations are intra vires the provinces.

The difficulty in the reasoning underlying the Morton decision is amplified when it is applied to on-land containment aquaculture. In Morton Hinkson J held that tidal net-pen aquaculture was a “fishery” because it involved, among other things, the “rearing” and “catching” of fish.11 He also found that the net-pen fish occupied a space in the ocean previously occupied by wild fish such that they could be considered “products of the sea”12 Applying this reasoning to closed containment aquaculture may result in the anomalous finding that closed containment aquaculture is also a “fishery”. Although they do not occupy wild space in the ocean, they are nonetheless reared, fed and processed in the same way as net-pen sites. By following Morton and focusing on rearing, processing and location of the cultured fish, rather than the effects on wild fish, another court could also wrongly declare closed containment aquaculture “a fishery” despite that closed

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10 Supra note 13, s. 2.
11 See Morton v British Columbia (Minister of Agriculture and Lands), 2009 BCSC 136 at para 154, 92 BCLR (4th) 314 [Morton].
12 See ibid at para 155.
containment operations have no direct effects on wild fish and are never “caught” or “fished”.

### 7.2.2 Freshwater Net-Pen Trout Aquaculture

Approximately 50% of all trout production in Canada occurs in Ontario.\(^\text{13}\) Approximately 60% of trout aquaculture in Ontario occurs in eight large net-pen sites suspended in waters off Manitoulin Island in Georgian Bay.\(^\text{14}\) The structure of trout net-pen sites largely mimics the net-pen salmon sites in tidal waters.\(^\text{15}\) In Ontario, federal regulations govern the wild capture fisheries but the federal government delegates administration of the federal rules to provincial agencies.\(^\text{16}\) Aquaculture, by contrast, is regulated by purely provincial legislation which regulates licensing of aquaculturists,\(^\text{17}\) reporting,\(^\text{18}\) escapes,\(^\text{19}\) and disease.\(^\text{20}\)

Given that non-tidal and tidal net-pen sites pose the same dangers to wild fish through escapees, pollution, and diseases, one may expect the same arguments made in chapter 4 in favour of an exclusive federal power to regulate escapees. However, an important distinction is drawn in the law regarding provincial powers between tidal and non-tidal waters. The case law has developed to give the provinces a concurrent power to enact regulations to protect wild fish in non-tidal, “provincially-owned” fisheries. The Supreme Court of Canada has stated, in obiter, that the provinces do not have the power to

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\(^{17}\) See Fish and Wildlife Conservation Act, 1997, SO 1997, c 41, s 47; Fish Licensing, O Reg 664/98, s 19.

\(^{18}\) See ibid., s 21.

\(^{19}\) See ibid.

\(^{20}\) See ibid., s 22.
regulate the fisheries “generally” but can enact regulations “in respect of provincially-owned fisheries as an aspect of their power to administer their public property.”

This statement has been interpreted by the lower courts to allow Saskatchewan to regulate all types of fishery protection regulations on provincial land and to allow Newfoundland to enact salmon tagging regulations for the purpose of the preservation of salmon in non-tidal waters on provincial land. Since the Supreme Court of Canada’s decision was in relation to the regulation of the fisheries within Ontario, the reasoning applies to net-pen sites in the Great Lakes allowing Ontario to create its own escapee, pollution, and disease regulations designed to protect wild fish within provincially-owned fisheries.

Furthermore, the fisheries in the Great Lakes are provincially-owned fisheries. The bed of the Great Lakes is owned by the province and the province owns the fisheries therein. The fact that the Great Lakes are navigable does not create a public right to fish similar to tidal waters. Navigable waters are those that are “capable in [their] natural state of being traversed by large or small craft of some sort—as large as steam vessels and as small as canoes, skiffs and rafts drawing less than one foot of water.” It is important not to conflate the federally protected public right of navigation with the federally protected public right to fish. The two rights do not track each other. Some authors have stated that the public right to fish in Canada extends to navigable non-tidal waters and therefore...

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21 See Peralta SCC, supra note 16.
23 See R v Patey (2007), 31 CELR (3d) 98, 74 WCB (2d) 527 (Nfld Prov Ct).
24 See Gerard V La Forest, Water Law in Canada: The Atlantic Provinces (Ottawa: Public Works, 1972) at 246 [La Forest, “Water Law in Canada”]; Keewatin Power Co. v Kenora (Town) (1908), 16 OLR 184, 11 OWR 266 (CA); Carroll v Empire Limestone Co. (1919), 48 DLR 44, 45 OLR 121 (Sup Ct App Div); Beds of Navigable Waters Act, RSO 1990, c B.4 (absent evidence to the contrary).
25 See Simpson v Ontario (Natural Resources), 2011 ONSC 1168, 3 RPR (5th) 96 at para 23.
Parliament has exclusive jurisdiction to regulate the fisheries within these waters. However, while the courts have extended the public right of navigation from tidal waters to encompass non-tidal navigable waters, the weight of authority is against extending the public right to fish into non-tidal navigable waters. The confusion likely arises from the fact that the public typically has access to navigable waters and the Crown typically owns the bed of navigable waters and allows the public to fish there. However, public access to a fishery does not create a Magna Carta public right to fish. As La Forest J noted:

There are some statements, however, that a public right of fishing exists in non-tidal waters where the bed is owned by the Crown, but while fishing may be public in the sense that it is provincial property and the province may permit the public to fish there, it is not public in the sense that a general right exists in the public.

Therefore, the fisheries in the Great Lakes are provincially-owned wild fisheries and Ontario may pass escapee, pollution, and disease laws to protect those wild fisheries.

7.3 Tidal Sites

7.3.1 Raft/Long-line Mussel, Oyster and Scallop Aquaculture

There are hundreds of shellfish aquaculture sites on both coasts. Approximately 11% of total Canadian aquaculture value derives from mussel, oyster, and scallop aquaculture.

Mussel aquaculture operations rear mussels by placing a vertical floating “long-line” that
extends into deep ocean water on which hundreds of mussels grow. 32 Similarly, many oyster and scallop aquaculture sites place the cultured individuals on floating sub-tidal rafts that suspend the individuals on racks in deep waters. 33 However, unlike mussels, some oyster and scallop aquaculture sites place the cultured individuals onto beds, a method that I discuss in the next section. 34

For long-line and raft aquaculture, the underlying constitutional principles are the same as tidal net-pen salmon sites. The provinces have concurrent power to regulate effects on tidal fisheries in the public interest. 35 As a result, Parliament has exclusive power to regulate raft/long-line aquaculture sites to protect wild fish. Because the provinces own the seabed in between the jaws of the land where rafts and long-lines are situated, the provinces have the authority to lease tenures to anchor to the sea floor.

While the constitutional principles are the same as net-pen aquaculture, the effect of these principles is minimal because there are so few shellfish aquaculture regulations. This is because shellfish aquaculture has a very low environmental impact. There are no escapee or pollution concerns. Shellfish feed by filtering natural water currents, so there are no unnatural wastes. Shellfish aquaculturists seek to have a pristine environment to ensure a high quality product. There are, however, parasite and disease concerns in shellfish aquaculture. There are global transfers of shellfish seed and real danger for introduction of

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34 See ibid; Canadian Aquaculture Industry Alliance, “Canadian Farmed Oyster”, supra note 33.
35 See chapter 4, subsection entitled “The Meaning of ‘Fisheries’”. 
serious disease. There are no vaccines for shellfish and treatments are difficult to apply. In British Columbia, the Pacific Aquaculture Regulations regulate shellfish aquaculture through shellfish specific licence conditions that, among other things, seek to prevent disease and harm to native species. On the east coast there are no shellfish specific regulations although the disease reporting requirements in the regulations apply equally to shellfish aquaculturists. As discussed in chapter 5, both levels of government likely have authority to enact regulations to prevent disease, although a national scheme is preferred for effective environmental protection.

7.3.2 Seafloor Clams, Oyster, and Scallops Beds

Inter-tidal bottom culture sites are used to raise clams, oysters and scallops along the seafloor. Clam aquaculturists use the seabed to raise their product whereas oyster and scallop aquaculturists may use either the seabed or floating rafts. The issues discussed regarding raft and long-line shellfish aquaculture apply equally to seabed aquaculture: disease concerns exist in both areas of production. However, in seabed aquaculture there is a greater potential for the public harvest of the aquaculturist’s product. This issue was discussed in chapter 5 regarding the public right to fish. The public right to fish includes the

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36 See Department of Fisheries and Oceans, “Public Reporting on Aquaculture - Salmon Egg Imports” online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca> [DFO, “Public Reporting on Aquaculture – Salmon Egg Imports”].


39 See e.g. Aquaculture Act, RSNB 2011, c 112, ss 1, 25.


right to dig for shellfish in the intertidal zone\textsuperscript{42} but an aquaculturist may nonetheless be able to keep their property in their oyster beds if they can keep them in a walled structure.\textsuperscript{43}

7.3.3 Marine Plant Aquaculture

Global marine plant aquaculture generated US$5.7 billion in 2010.\textsuperscript{44} While there are a variety of farmed plant species, kelp and seaweeds made up over 97\% of production in 2010.\textsuperscript{45} Approximately 98.9\% of global production occurs in Asia.\textsuperscript{46} Although aquaculturists could culture seaweed in North America, seaweed is seen as a niche product and produced only in British Columbia and New Brunswick.\textsuperscript{47} In addition to commercial seaweed aquaculture, seaweeds are also cultivated as part of an “integrated multi-trophic” aquaculture system where seaweed is used to recapture the nutrients lost through salmon net-pen cages.\textsuperscript{48} While large-scale seaweed culture can have some negative environmental effects, the small-scale operations in Canada have mainly positive effects such as increased oxygen levels, recycling nutrients, and shelter for wild finfish.\textsuperscript{49}

Given that there are few impacts on wild fish and the public right to fish does not apply to plants, the regulation of seaweed aquaculture in tidal waters within the provinces is largely a provincial matter in relation to ss. 92(5) and 92(13). In \textit{Morton}, Hinkson J declined to consider the constitutionality of British Columbia’s seaweed aquaculture laws

\textsuperscript{42} See \textit{Donnelly v Vroom et al}, (1907) 40 NSR 585, 2 ELR 358 at para 21 (NSSC).
\textsuperscript{44} See FAO, \textit{State of World Fisheries and Aquaculture 2012} (Rome: FAO Fisheries and Aquaculture Department, 2012) at 40 [FAO, “State of the World Fisheries”].
\textsuperscript{45} See \textit{ibid} at 40-41.
\textsuperscript{46} See \textit{ibid} at 41.
\textsuperscript{47} See DFO, “Facts and Figures”, supra note 3.
\textsuperscript{48} Department of Fisheries and Oceans, \textit{Aquaculture in Canada: Integrated Multi-Trophic Aquaculture (IMTA)} (Ottawa: Fisheries and Oceans Canada, 2013).
because Morton did not challenge those laws. Therefore, they are still in force. In the future, larger sites may involve wild fish concerns (including deterioration of fish habitat); however, even larger sites have shown a beneficial impact on the shoreline through decreased levels of erosion. Where certain harms to wild fish could be rationally connected to plant aquaculture, that may trigger Parliament’s power to regulate those harms through s. 91(12). Currently, the federal government regulates plant aquaculture outside of the provinces, and the provinces regulate plant aquaculture within the provinces. The existing laws do not exceed each government’s jurisdiction because plant aquaculture within the province is a matter of property and land use and there are no significant impacts on wild fish.

7.3.4 Tidal Closed Containment Salmon Aquaculture

Tidal closed containment salmon aquaculture sites are still experimental in Canada. A tidal closed containment site is essentially a submerged closed containment site. While escapees, pollution and disease transfer to wild fish is still possible, the risks of those harms are significantly lowered by the non-porous container. The aquaculturist can employ pumps to filter out wastes from the container. A recent DFO study found the design to be non-profitable.

There is no reason to apply a different constitutional analysis to tidal closed containment sites than to net-pen sites. If a court were to apply the reasoning in Morton to

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50 See ibid.
51 See Fisheries Act, RSC 1985, c F-14, s 47.
52 See e.g. Aquaculture Act, RSNB 2011, c 112, s 1.
53 See David, Struthers, & Gilbert, supra note 4 at 12-15.
54 See ibid at 12.
55 See ibid at 30.
tidal closed containment aquaculture, it might also conclude that closed containment aquaculture constitutes a “fishery” subject to exclusive federal regulation because such sites “rear” and “harvest” fish and occupy space previously occupied by wild fish. However, in my view, the fact that closed containment sites, as with net-pen sites, maintain possession of their fish, the fish become the property of the aquaculturist. Closed-containment aquaculture regulations, like net-pen regulations, are not an entirely exclusive federal matter. Provinces have significant scope to create such legislation as seafloor pollution, disease, seafloor lease, and safety legislation.

7.3.5 Offshore Aquaculture

Offshore aquaculture sites are net-pen sites except they are located further out to sea to benefit from deeper waters, fewer navigation conflicts, and the possibility for very large operations.56 Offshore sites exist in the United States,57 but no facilities currently exist in Canada (except the two sites in Québec discussed in chapter 6), although there is some interest to expand.58

Offshore aquaculture may fall within provincial boundaries. In those cases, the constitutional issues and principles are the same as those discussed in chapters 4 and 5. However, because of the distance of offshore aquaculture from shore, they will mostly fall outside of provincial boundaries. For offshore sites outside the provinces, the authority to regulate all offshore aquaculture matters is exclusively federal. As discussed in the analysis

57 See ibid at 55.
58 See e.g. Nova Scotia Department of Agriculture and Fisheries, Growing Our Future: Long Term Planning for Aquaculture Farming in Nova Scotia: A Discussion Document (Halifax: Department of Agriculture and Fisheries, 2005) at 10-12, online: Department of Fisheries and Aquaculture <http://www.novascotia.ca>.
of territorial boundaries in chapter 6, the boundaries of the provinces generally end at the low-tide mark with the exception of waters between the jaws of the land such as bays and estuaries. The provinces have no jurisdiction to regulate aquaculture sites outside their territory. Sections 92(5) and 92(13) are explicitly limited to activities “in the province”. The only potential constitutional issue is defining where the provincial boundary lies in a particular case.

Under international conventions, the federal government has authority to regulate aquaculture many kilometres from its coast. In offshore waters extending to 200 nautical miles from the low tide mark, the United Nations Convention on the Law of the Sea creates an exclusive economic zone in which coastal states have “sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil”. Canada has copied the text of the Convention into its Oceans Act to claim an exclusive economic zone with regard to “the establishment and use of artificial islands, installations and structures” and “the protection and preservation of the marine environment”. The Convention has been ratified by 166 states, including Canada and all other major states except the United States.

60 See Hogg, supra note 26, ch 13 at 4.
63 Ibid, art 51 cl 1(a).
64 Article 51 subcl 1(b)(i); Oceans Act, SC 1996, c 31, s 14(b)(i).
65 Article 51 subcl 1(b)(iii); Oceans Act, supra note 64, s 14(b)(iii).
66 Status of the United Nations Convention on the Law of the Sea, of the Agreement relating to the implementation of Part XI of the Convention and of the Agreement for the implementation of the provisions of the Convention relating to the conservation and management of straddling fish stocks and highly migratory fish stocks Table recapitulating the status of the Convention and of the related Agreements, as at 18
7.3.6 Sea Ranching

Sea ranching is the practice of raising fish on land, releasing them into the ocean, and then devising a way to harvest them when they have reached market size.\textsuperscript{67} Shellfish sea ranching has been studied in Canada\textsuperscript{68} and salmon sea ranching occurs in the United States where a rancher releases juvenile salmon into a salmon bearing stream and harvests them when they return from the ocean to spawn.\textsuperscript{69} In Japan, shellfish ranching is common.\textsuperscript{70} Salmon sea ranching has natural advantages as salmon naturally return to their place of origin. Sea ranching is different from stock enhancement hatcheries. The goal of sea ranching is for the cultured salmon to return to the rancher whereas the goal of hatchery aquaculture is to increase the stock of wild fish for wild harvest fishers and for ecological purposes.\textsuperscript{71}

Three jurisdictional issues arise with sea ranching. The first issue is the regulation of the introduction of disease from hatchery fish to wild tidal fisheries. As this relates purely to regulating effects on wild tidal fish in the public interest, this is an exclusively federal matter. Indeed, DFO regulates hatchery operations on both coasts, but in the east coast DFO has delegated responsibility to the provinces.\textsuperscript{72} In British Columbia, hatchery

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\textsuperscript{70} Gardner Pinfold, “Economic Potential of Sea Ranching and Enhancement of Selected Shellfish Species in Canada”, \textit{supra} note 68 at ii.

\textsuperscript{71} Bartley & Bell, \textit{supra} note 67.

operators must obtain licences under the federal *Pacific Aquaculture Regulations* and must abide by the disease prevention conditions within the licence conditions.\(^73\)

The second issue is the jurisdiction to create an exclusive fishing right in the sea rancher’s salmon bearing stream or in the shellfish rancher’s seabed. Private fishing rights already exist at common law in non-tidal waters where a private individual owns both sides of the water body.\(^74\) In non-tidal waters in which the province owns the water bed, the province can grant individuals exclusive fishing rights.\(^75\) While the Privy Council has held that Parliament cannot create private fishery rights, this was in the context of legislation intended to confer property rather than legislation intended to enhance the fishery. The preferred interpretation, suggests La Forest J, is that Parliament can create private fishing rights where such rights are in pith and substance in relation to the protection of wild fish.\(^76\) In extreme cases, this could extend to expropriating land for the purpose of preserving a fishery.\(^77\) Section 57 of the federal *Fisheries Act* currently allows the Minister to “set apart” waters for hatchery operations.\(^78\) For shellfish sea ranchers in *tidal* waters, only Parliament can create an exclusive fishery.\(^79\)

The third and most difficult issue in relation to sea ranching is devising a means to limit the loss of the rancher’s cultured fish to offshore wild fish harvesters. At common law, a fisher loses property in a caught fish where that fish is released and returns to the

\(^73\) See Department of Fisheries and Oceans, “Enhancement facilities (hatcheries) licensing in the Pacific Region”, online: Fisheries and Oceans Canada <http://www.pac.dfo-mpo.gc.ca>.


\(^75\) *Ibid*; *Robertson, supra* note 74; La Forest, “Water Law in Canada” *supra* note 24 at 235.

\(^76\) See *ibid* at 39.

\(^77\) See *ibid*.

\(^78\) RSC 1985, c F-14, s 57.

\(^79\) See *Meisner v Fanning* (1842), 2 NSR 97 (NSSC) at 99; Saunders & Finn, *supra* note 28 at 120; *Donnelly, supra* note 42; *BC Fisheries Reference, supra* note 74. See also Chapter 4, section entitled “Interference the Public Right to Fish”.

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Therefore, in order for the rancher to maintain property in released salmon, both the federal and provincial governments would need to legislate to protect the rancher’s fish. The federal legislation would limit the public’s right to fish in tidal waters and the provincial legislation would maintain the property rights of the rancher in the non-tidal waters of the province. Shellfish ranching would only require federal legislation.81

7.4 Chapter Summary

The provinces possess broad regulatory jurisdiction over non-tidal forms of aquaculture because in non-tidal waters the provinces have greater powers to pass laws to preserve wild fish. In particular, for on land closed containment and freshwater net-pen aquaculture, the provinces can regulate areas not open to them in tidal waters such as escapees. The provinces also have broad powers to regulate marine plant aquaculture because plant aquaculture regulations mainly involve regulation of the use of the seafloor.

By contrast, the provinces’ power over other tidal forms of aquaculture is limited in a similar manner to its power over tidal net-pen aquaculture. Regarding raft/long-line shellfish aquaculture, seafloor shellfish aquaculture, and tidal closed containment aquaculture, Parliament possesses exclusive jurisdiction to regulate effects on wild fish such as escapee effects. Parliament also has exclusive jurisdiction to regulate all aspects of offshore aquaculture that fall outside of the boundaries of the provinces.


81 The exception to this proposition is oyster: for oysters, ss 58-59 of the *Fisheries Act*, RSC 1985, c F-14, provide competent federal legislation to restrict the public right to fish in oyster aquaculture beds.
Chapter 8: The *Pacific Aquaculture Regulations* and the Environment

8.1 Introduction

The preceding chapters identified constitutional issues with provincial escapee and licensing regulations. In my view, in British Columbia the division of responsibility between the federal and provincial governments strikes the right constitutional balance. In British Columbia, the federal government regulates effects on wild fish, such as escapees, through the *Pacific Aquaculture Regulations* and the province leases the use of the seabed.

While the regulatory regime in British Columbia has struck the right constitutional balance, the purpose of this chapter is to show that the regime is nonetheless environmentally flawed. If the federal government were to enact aquaculture regulations on the east coast, then the *Pacific Aquaculture Regulations* is a likely model. The purpose of this chapter is to identify flaws in the *Pacific Aquaculture Regulations* that Parliament and Cabinet ought to resolve before using the regulations as a model for other provinces.

There are four flaws in the *Pacific Aquaculture Regulations*. First, the *Pacific Aquaculture Regulations* conflict with the pollution prevention provision of the *Fisheries Act*: whereas the *Pacific Aquaculture Regulations* issue licences to polluting aquaculture sites, s. 36 of the *Fisheries Act* prohibits such pollution. Second, neither the *Pacific Aquaculture Regulations* nor the newly enacted *Canadian Environmental Assessment Act, 2012* mandate an environmental assessment for aquaculture sites, regardless of the size. Third, by placing all the aquaculture standards in the licence conditions rather than in the regulation themselves, the *Pacific Aquaculture Regulations* are not transparent. Finally, this subdelegation may go farther than permitted by the *Fisheries Act*. I discuss each of these four flaws in turn below.
8.2 The Application of ss. 35 and 36 of the *Fisheries Act* to Aquaculture

Sections 35 and 36 of the *Fisheries Act* have proven to be two of Canada’s most important environmental provisions. Section 35 prohibits any work that harms fish habitat. Section 36 prohibits the release of deleterious substances into waters frequented by fish. The two sections act as environmental safeguards because a conviction under the two sections does not depend on proof of actual harm to fish - only harm to their habitat and pollution into their waters. Since the sections came into force there have been thousands of enforcement actions taken by DFO officers and hundreds of convictions.

Section 35 exempts habitat harm where the work is: (1) permitted or required under the *Fisheries Act*; (2) conducted in compliance with the regulations; (3) authorized by the Minister of Fisheries and Oceans and conducted in compliance with the conditions established by the Minister; or (4) authorized by a person prescribed in the regulations and conducted in compliance with the conditions established by the prescribed person. Section 36 exempts deleterious releases if (1) Cabinet authorizes the release through prescribed regulation or (2) the Minister authorizes the release through regulation. An example where Cabinet authorizes the release of certain deleterious substances is the *Pulp and
Paper Effluent Regulations that set quantitative standards for the discharge of pulp and paper effluent. ¹²

Net-pen aquaculture sites may violate s. 35 because they release faeces and feed wastes and, on the east coast, there are no regulations or authorizations in place to exempt those violations. Provincial licences do not currently qualify as a valid authorization to exempt liability for habitat harm. Therefore, on the east coast aquaculturists are open to prosecution under s. 35.

By contrast, in British Columbia, aquaculturists are likely exempt from the s. 35 prohibition. Section 35 exempts individuals that carry out activities authorized by the Minister and that conduct those activities in compliance with the conditions established by the Minister. ¹³ It also contains a broad exemption for individuals that comply with the Fisheries Act regulations generally. ¹⁴ The Pacific Aquaculture Regulations create a scheme through which the Minister can authorize aquaculture that may harm habitat. The licence and licence conditions issued by the Minister under the Pacific Aquaculture Regulations likely satisfy this exemption. DFO is also of the view that Pacific Aquaculture Regulations licensing scheme constitutes sufficient ministerial authorization to exempt aquaculturists from s. 35. ¹⁵ However, this scheme is limited to British Columbia.

Net-pen aquaculture sites may also violate s. 36 because of the release of deleterious substances (faeces) into waters frequented by fish. As seen in Kelly Cove, sea lice

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¹² SOR/92-269.
¹³ Supra note 2, s 35(2)(b).
¹⁴ Ibid, s 35(2)(e).
¹⁵ See Bruce I Cohen, The Uncertain Future of Fraser River Sockeye: Volume 1 • The Sockeye Fishery (Ottawa: Minister of Public Works and Government Services, 2012) at 395 [Cohen, “Cohen Commission Final Report Volume 1”].
treatments can also cause significant mortality in wild shellfish leading to s. 36 charges.\textsuperscript{16} Despite this, there are no s. 36 regulations authorizing release of deleterious substances for net-pen sites. Oddly, the first draft of the \textit{Pacific Aquaculture Regulations} indicated that the regulations would apply to s. 36 and thereby could have possibly constituted a regulatory authorization for a s. 36 violation.\textsuperscript{17} However, the \textit{Pacific Aquaculture Regulations} as enacted did not include this indication.\textsuperscript{18} In any case, in the Atlantic provinces there is no federal regulation authorizing aquaculture pollution of any form.

DFO is alive to the ongoing s. 36 issue, although not acting on the violations. For instance, DFO recognizes that the introduction of therapeutants into the net-pen sites may constitute a deleterious substances and DFO is working to create regulations exempting therapeutics from s. 36.\textsuperscript{19} However, no such regulations currently exist and aquaculturists continue to release fecal matter and therapeutants into the ocean.

Notwithstanding the rule of law issues with the ongoing ss. 35 and 36 violations, there are also tangible environmental and economic consequences. Environmental harm may occur because the prohibitions in the provincial and federal licence conditions are a poor substitute for the ss. 35 and 36 prohibitions. In particular, s. 36 regulations that permit the release of substances contain precise quantitative thresholds that an emitter cannot

\textsuperscript{16} See Agreed Statement of Facts filed in \textit{R v Kelly Cove Salmon Ltd.} (26 April 2013), Moncton (NB Prov Ct) \textit{[Kelly Cove]}.


\textsuperscript{18} SOR/2010-270.

\textsuperscript{19} See \textit{Notice of intent with respect to regulations for fish pathogens and pest treatment}, (2011) 145 C Gaz 45; Cohen, “Cohen Commission Final Report Volume 1” \textit{supra} note 15 at 368. See also Department of Fisheries and Oceans, “National Aquaculture Strategic Action Plan Initiative (NASAPI) West Coast Marine Finfish Sector recommended in its Strategic Action Plan 2011–2015” (16 March 2010) online: Fisheries and Oceans Canada <http://www.dfo-mpo.gc.ca> (This document contains a recommendation for “a regulatory process by which drugs and pest control products, technologies and procedures can be used for fish health management without contravening s. 32 or s. 36 of the \textit{Fisheries Act} while ensuring that proper measures are in place to conserve and protect fish and fish habitat.” at 10); Tom Watson, “Questions and Answers on Salmon Aquaculture in British Columbia” (16 August 2011) at 17 online: BC Salmon Farmers Association <http://www.salmonfarmers.org>.
exceed. 20 By contrast, the federal aquaculture licence conditions are vague regarding the quantities of deleterious substances that an aquaculturist can emit. For example, the federal licence conditions require that the aquaculturist collect the blood generated during harvest “with minimal leakage”. 21 Fuel spills are not prohibited in the conditions, but the aquaculturist must report any spills and “minimize” the damage. 22 An aquaculturist must only produce a chemical management plan if DFO requests one. 23 The conditions of licence only provide a quantitative threshold for domestic sewage releases. 24

DFO’s approach to s. 36 violations also has economic consequences. Although the Crown does not prosecute net-pen aquaculturists for ongoing and regular s. 36 violations, a private person could. The Criminal Code allows private individuals to institute criminal prosecutions for Fisheries Act offences. 25 The purpose of private prosecutions is to ensure criminal acts are brought before the court and to check abuses of authority. 26 Regulations under the Fisheries Act also grant private prosecutors one half of the penalty imposed from an information laid by the private prosecutor. 27 To institute a private prosecution a person must lay an information stating under oath that they believe, on reasonable grounds, that a person committed an indictable offence (which includes an offence under s. 36 of the Fisheries Act). 28 For private prosecutions, a provincial court judge, or a designated justice,

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20 See e.g. Pulp and Paper Effluent Regulations, supra note 12, s 6.
22 See ibid, licence condition 12.21.
23 See ibid, licence condition 12.18.
24 See ibid, licence condition 12.25.
25 Criminal Code, RSC 1985, c C-46, ss 504, 507.1; Interpretation Act, RSC 1985, c I-21, s 34(2).
26 Report of the Attorney General’s Advisory Committee on Charge Screening, Disclosure and Resolution Discussions (Toronto: Queen’s Printer, 1993); Stanley D Berger, The Prosecution and Defence of Environmental Prosecutions, looseleaf (consulted on 7 August 2013), (Toronto: Emond Montgomery, 1999), ch 1 at 85.
27 Fishery (General) Regulations, SOR/93-53, s 62.
28 See Criminal Code, supra note 25, s 504.
reviews the information to assess whether the reasonable ground standard has been met.\textsuperscript{29} The reasonable grounds standard may be met simply by the \textit{viva voce} allegations of the informant or the evidence of other witnesses.\textsuperscript{30} If the judge or designated justice concludes that the reasonable grounds standard is met, then she must issue a summons or warrant for the accused thus commencing the criminal proceedings.\textsuperscript{31} However, even if the private prosecutor is able to lay an information and obtain a summons or warrant, the Attorney General may step into the prosecution and stay proceedings.\textsuperscript{32} In deciding whether to step into the prosecution and stay the proceedings, the Attorney General balances the right to initiate a private prosecution and the responsibility of the Attorney General to ensure the proper administration of justice.\textsuperscript{33} The Attorney General also assesses the gravity of the offence and whether there is a reasonable prospect of conviction.\textsuperscript{34} Private prosecution, unlike a private action in public nuisance, appears to be a more accessible tool for enforcing the law and for strategic environmental litigation. Advocacy groups have used private prosecutions widely to address pollution from coal-fired air pollution\textsuperscript{35} to municipal water pollution.\textsuperscript{36} Around 1999, a private prosecutor charged a net-pen aquaculturist with offences under the \textit{Fisheries Act}.\textsuperscript{37} The Attorney General stepped in and entered a stay of proceedings on the basis that there was no reasonable prospect of conviction, likely because

\textsuperscript{29} See \textit{ibid}, s 507.1.
\textsuperscript{30} See \textit{ibid}.
\textsuperscript{31} See \textit{ibid}.
\textsuperscript{32} Berger, \textit{supra} note 26, ch 1 at 135-36.
\textsuperscript{34} See \textit{ibid}.
\textsuperscript{36} \textit{Fletcher v Kingston (City)} (2004), 70 OR (3d) 577, 240 DLR (4th) 734 (CA); Berger, \textit{supra} note 26, ch 1 at 88.
the accused had a defence of officially induced error since DFO licensed his activity. DFO responded with a statement that it intended to enforce the *Fisheries Act* in relation to salmon farming. In 2005, Alexandra Morton charged a net-pen company with a violation of s. 55 of the *Fishery (General) Regulations* for releasing a fish (sea lice) into the ocean with a licence, but the Attorney General stayed the charge on the basis that there was not reasonable prospect of conviction. Finally, in 2010, Morton charged Marine Harvest Ltd. for catching pink salmon smolts when harvested Atlantic salmon from the nets. The Crown assumed conduct of the prosecution, and Marine Harvest Ltd. pleaded guilty and was fined $5,000.

Unlike private actions for public nuisance discussed in chapter 5, the Attorney General’s permission is not required to instigate private prosecutions. The Attorney General’s considerations in staying a private prosecution are also publicly accessible policies. Therefore, unlike private actions in public nuisance, the Attorney General might not stay proceedings where there is a reasonable prospect of conviction and the prosecution is carried out by competent counsel. The private prosecution potential that exists under the current regulatory approach creates uncertainty for aquaculturists. The aquaculture industry has recognized that “at present there appears to be some uncertainty as to the application of sections 35 and 36 of the *Fisheries Act* to aquaculture.”

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38 See *ibid*.
39 See *ibid*.
42 See Morton, “Marine Harvest Pleads Guilty”, *supra* note 41.
43 Watson, *supra* note 19 at 17.
8.3 The Application of Environmental Assessments to Aquaculture

Neither federal nor provincial environmental assessments are conducted for net-pen aquaculture sites. This was not always the case. In 1997, British Columbia launched a comprehensive environmental assessment of net-pen aquaculture operations in general.\textsuperscript{44} The Salmon Aquaculture Review concluded that net-pen aquaculture presented a “low risk” to wild salmon but made 49 recommendations.\textsuperscript{45} In addition, under the \textit{Canadian Environmental Assessment Act}, repealed in 2012, the federal government carried out environmental assessments on some aquaculture sites.\textsuperscript{46} The repealed \textit{Canadian Environmental Assessment Act} operated on the basis of “triggers”.\textsuperscript{47} If certain prerequisites were triggered, an environmental assessment became necessary.\textsuperscript{48} Relevant to aquaculture, one of the triggers was whether a project would require a \textit{Navigable Waters Protection Act} permit.\textsuperscript{49} Such permits are required where a work may significantly impact the public right of navigation.\textsuperscript{50} Environmental assessments could consider the effects of the site on water quality, fish habitat, biodiversity, escapee inter-breeding, and disease spread on wild fish, and could devise measures to minimize negative affects in association to these categories.\textsuperscript{51} None of the witnesses at the Cohen Commission who testified regarding the repealed

\textsuperscript{45} \textit{Ibid} at A-1.
\textsuperscript{46} SC 1992, c 37. See Bruce I Cohen, \textit{The Uncertain Future of Fraser River Sockeye: Volume 1 • The Sockeye Fishery} (Ottawa: Minster of Public Works and Government Services, 2012) at 419 [Cohen, “Cohen Commission Final Report Volume 1”].
\textsuperscript{47} See \textit{Canadian Environmental Assessment Act}, SC 1992, c 37, s 5.
\textsuperscript{48} See \textit{ibid}.
\textsuperscript{49} See \textit{ibid}; \textit{Law List Regulations}, SOR/94-636.
\textsuperscript{50} \textit{Supra} note 47, s 5. See Cohen, “Cohen Commission Final Report Volume 1”, \textit{supra} note 46 at 395.
\textsuperscript{51} See \textit{ibid} at 399.
Canadian Environmental Assessment Act could identify a case in which a net-pen site was denied based on its potential effect on wild Fraser River salmon.52

In 2012, Parliament passed the Canadian Environmental Assessment Act, 2012.53 The CEAA, 2012 does not contain any regulatory triggers that force an assessment. Under CEAA, 2012 an assessment is only required if it falls within one of the categories of projects listed in the regulations, such as the construction of a pulp mill or construction of a railway longer than 35 kilometres.54 Net-pen aquaculture and the activities associated with it are not captured by any of the categories in the regulations. All the coastal provinces have environmental assessment laws that also use a “list” method to select which projects undergo an assessment.55 Similar to the federal assessment regulations, net-pen tidal aquaculture does not fall under any of the categories of the provincial assessments either. Therefore environmental assessments, provincial or federal, do not apply to net-pen aquaculture sites.

8.4 Transparency and Subdelegation

The Pacific Aquaculture Regulations regulatory regime relies heavily on the use of licence conditions. Rather than placing prohibitions in legislation or a regulation, they are attached as conditions to the licence. For example, the Pacific Aquaculture Regulations contain only one prohibition: that no person conduct aquaculture without a licence issued under the

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52 Ibid at 400.
53 SC 2012, c 19, s 52.
54 See ibid, s 15; Regulations Designated Physical Activities, SOR/2012-147, Schedule.
55 See Environmental Assessment Act, SBC 2002, c 43; Regulation respecting environmental impact assessment and review, RRQ, c Q-2, r 23; Environmental Impact Assessment Regulation, NB Reg 87-83; Environmental Assessment Regulations, NS Reg 26/95; Environmental Assessment Regulations, 2003, NLR 54/03.
Pacific Aquaculture Regulations. All the prohibitions are found in the licence conditions. While the east coast provinces place most standards in an aquaculture statute and regulation, each province also places conditions in the licence.

Two issues arise when the minister places important prohibitions in the licence conditions as opposed to Parliament or Cabinet placing them in a statute or regulations. The first issue is transparency. The licence conditions currently held by aquaculturists on either coast are only accessible by a public access request, which can take months. While DFO places a template version of the licence conditions on its website, there is no guarantee that this template version represents the licences held by the aquaculturists in British Columbia. There is also no obligation on DFO to post this template online. On the east coast, a sample set of licence conditions is not posted. As a result, local residents and fishers are less able to ensure the lawfulness of the operations of neighbouring aquaculture sites. By the time the public access request is fulfilled, the licence conditions may have changed or the harm may have ceased. Furthermore, where a minister drafts the licence conditions, the reasoning underlying particular licence conditions and standards is tied up in government records. No notice may be given regarding changes in licence conditions. By contrast, statutory prohibitions are openly debated in the legislature and the reasoning

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56 SOR/2010-270, ss 6-7.
57 Aquaculture Act, RSNB 2011, c 112, ss 7, 9, 13-14 (the “registrar” possesses extensive discretion to set conditions, s 13); Fisheries and Coastal Resources Act, SNS 1996, c 25, ss 48, 56 (the minister possesses extensive discretion to set conditions, s 48); Aquaculture Act, RSNL 1990, c A-13, s 11 (Cabinet reserves the discretion to set the licence conditions). Québec is the exception to the proposition: An Act respecting commercial aquaculture, RRQ c A-20.2, r 1.
59 See ibid.
underlying regulations are posted in the Canada Gazette along with advance notice and often an opportunity for public submissions.60

The second issue is whether Cabinet’s subdelegation to the minister to create aquaculture prohibitions through the licence conditions constitutes a valid subdelegation. There has been a trend in recent amendments to environmental legislation to expand Cabinet or ministerial discretion.61 Through the Pacific Aquaculture Regulations, Cabinet delegates all management of aquaculture to the Minister of Fisheries and Oceans. Subsection 43(a) of the Fisheries Act gives Cabinet the power to create regulations for the “management of the sea coast and inland fisheries”.62 Cabinet used s. 43(a) to create the Pacific Aquaculture Regulations63 but Cabinet does not itself manage aquaculture by placing prohibitions into the regulations. Rather, in the Pacific Aquaculture Regulations Cabinet gives the Minister the power to place prohibitions regarding all aspects of aquaculture into the licence conditions.

While s. 43(a) gives Cabinet broad power to create regulations, there is a principle of construction that a delegatee of power cannot subdelegate (delegatus non potest delegare).64 However, this principle does not create a prohibition against subdelegation; Cabinet can validly subdelegate its powers where there is language in the statute that

62 Supra note 2, s 43(a).
63 Supra note 56, preface.
indicates that Parliament intended Cabinet to be able to subdelegate its powers. Such language may be explicit language or language indicating, by necessary implication, that Parliament intended the power to be subdelegated. The courts take a “pragmatic and functional approach” in deciding whether the subdelegation is necessarily implied. The courts consider the object of the statute and the need for subdelegation to achieve that object. The court will weigh the importance of subdelegation in attaining the object of the statute against the desire of Parliament to ensure the power is exercised by the person designated in the statute. For example, in Peralta the Ontario Court of Appeal considered the ability of Cabinet to subdelegate to the Minister the power to make licence conditions that regulated the non-tidal wild fishery in Ontario. The Court held that the power to subdelegate to the Minister to create such licence conditions was necessarily incidental to Cabinet’s powers because of the importance of subdelegation for the management of the wild fishery. Cabinet could not reasonably be able to devise regulations for the “myriad of situations existing across Canada from the suburban areas to the remote north.” The same question was raised before the Newfoundland and Labrador Supreme Court in R v Cox, which also held that the power to subdelegate was necessarily implied. The Court in Cox expanded on the reasoning of the Court of Appeal in Peralta and held that not only does each geographic region need individualized management, but also the vicissitudes of the populations of wild fisheries require flexible, decentralized management:

65 See ibid; Peralta et al. and The Queen in right of Ontario et al. Peralta et al. v Warner et al., 49 OR (2d) 705 at 717, 16 DLR (4th) 259 (CA) [Peralta ONCA] aff’d [1988] 2 SCR 1045.
66 See Brown & Evans, supra note 64, ch 13 at 16.
67 See ibid, ch 13 at 21, 22.
68 See ibid, ch 13 at 22; Willis, supra note 64 at 260-61.
69 See ibid; Evans & Brown, supra note 64.
70 See Peralta ONCA, supra note 65 at 716.
71 See ibid.
72 See ibid.
73 2003 NLSCTD 56 at para 70, 225 Nfld & PEIR 86.
The sheer size and complexity of the Department of Fisheries and Oceans stretching from the Atlantic to the Pacific and across a continent to the far north to Frobisher Bay and all inland waters, is almost impossible to conceptualize. The sheer magnitude of the bureaucracy and the number of people affected by its very nature necessitates delegation. The *Fishery (General) Regulations* were passed specifically to allow decision making to be able to trickle down from the department offices and the Minister to the field where administrative functions have to work for the clear objectives of the control, management, protection and conservation of the fishery. One only has to turn on the radio or open newspaper to see how the micro level of operation is so vital to the proper management of the species. The trial judge did not err in law in concluding that the licensing conditions, the subject of this appeal, were properly delegated from the Governor in Council to the Minister of Fisheries to the various employees of his department. As such, I would dismiss the appeal of Mr. Cox on this ground as well.\(^74\)

Regarding aquaculture, there is no explicit language in the *Fisheries Act* indicating that Parliament intended that Cabinet could subdelegate the power to regulate aquaculture to the minister. Through the *Fisheries Act*, Parliament explicitly designated Cabinet as the body to create regulations to manage the fisheries. In the *Fisheries Act*, Parliament gives Cabinet the explicit power to subdelegate certain powers to the Minister, but only regarding the power to “vary the close time, fishing quota or limit”.\(^75\)

It is an open question whether subdelegation is necessarily implied in the aquaculture context. Unlike the wild fishery, the aquaculture industry is not as affected by geographic and ecological differences. For example, the wild fishery relies heavily on ministerial discretion, licence conditions, and even regional-director general discretion, as each sub-region of each province contains different species and is struggling with different management issues. Ecological systems are complex and may require quick regulatory responses. Unlike wild ecosystems, aquaculture is a largely human-controlled system. It is most akin to animal husbandry – a field in which there are few discretionary powers. In the

\(^74\) *Ibid.*  
\(^75\) *Supra* note 2, s 43(m).
aquaculture context, subdelegated discretion would likely be required for nuanced decisions such as disease management and the decision to issue a licence to an aquaculturist for a particular site. The licensing decision requires a case-by-case analysis of each application and the cumulative impacts of each site on the overall health of the wild fishery. Disease management is also nuanced because of the unpredictability of outbreaks, and the need to have stricter disease controls for different sites. Regarding other prohibitions such as basic record keeping, it is possible that legislation or regulations can adequately set industry-wide standards. Indeed, many of the conditions in the minister’s licence conditions are nearly identical to the prohibitions that were previously contained in British Columbia’s regulations rather than the licence conditions. Furthermore, the east coast provinces also place similar prohibitions in statute or regulation rather than in the licence conditions. No province decided that it was necessary to regulate the aquaculture industry entirely by subdelegation to a minister.

In considering whether subdelegation is necessarily implied, the court must also consider the desire of Parliament to ensure the power to regulate the fisheries is exercised by the named authority in the *Fisheries Act* (in this case, Cabinet). This factor may also weigh against the validity of the delegation in the *Pacific Aquaculture Regulations*. Through the *Pacific Aquaculture Regulations*, Cabinet retains none of its intended powers in relation to aquaculture. Cabinet does not manage any aspect of aquaculture itself – the power to devise standards, for all subjects of aquaculture management, is subdelegated to the Minister including: siting, species and quantities of fish, use of feed, harvesting of

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76 See e.g. *Aquaculture Regulation*, BC Reg 78/2002; *Finfish Aquaculture Waste Control Regulation*, BC Reg 256/2002.
77 See e.g. *Aquaculture Act*, RSNB 2011, c 112; *General Regulation*, NB Reg 91-158.
78 See Willis, *supra* note 64 at 260-61.
product, control of disease and parasites, escapees, predators, monitoring environmental impacts, use of equipment, reporting, record keeping, and fish transfer.\textsuperscript{79} In defence of the \textit{Pacific Aquaculture Regulations}, the government may argue that the subdelegation is valid because the \textit{Pacific Aquaculture Regulations} limit the Minister’s discretion to certain enumerated subjects. The problem with this reasoning is that, since the list of subjects is so long, the Minister effectively has complete discretionary control over all aspects of aquaculture management. The wild fishery regulations also subdelegate a long list of powers to the Minister in creating licence conditions for wild fishers, but even in the of a highly variable wild fishery, a number of key standards are contained directly in regulation.\textsuperscript{80} In the \textit{Pacific Aquaculture Regulations}, a similar set of standards including the use of harvesting equipment,\textsuperscript{81} release of incidental catch,\textsuperscript{82} and dumping of fish are delegated to the Minister.\textsuperscript{83} Therefore a Court may not find that subdelegation to the Minister regarding all aspects of aquaculture management is necessarily implied in the regulatory authority granted to Cabinet.

\subsection*{8.5 Chapter Summary}

Canadian aquaculture regulations are environmentally flawed. Sections 35 and 36 of the \textit{Fisheries Act} prohibit harm to fish habitat and the release of deleterious substances into waters frequented by fish. However, in the Atlantic provinces, aquaculturists have not obtained regulatory or ministerial authorizations to exempt them from those prohibitions. Therefore, aquaculturists violate ss. 35 and 36 and are vulnerable to private prosecutions.

\begin{itemize}
\item \textsuperscript{79} See DFO, “Finfish Aquaculture Licence and Conditions of Licence”, \textit{supra} note 21.
\item \textsuperscript{80} See \textit{Pacific Fishery Regulations, 1993}, SOR/93-54, ss 5-16.
\item \textsuperscript{81} See \textit{Fishery (General) Regulation}, SOR/93-53, s 27.
\item \textsuperscript{82} See \textit{ibid}, s 33.
\item \textsuperscript{83} See \textit{ibid}, s 34.
\end{itemize}
In British Columbia, aquaculturists can obtain a licence that exempts them from s. 35 but not s. 36. The *Pacific Aquaculture Regulations* should also be more transparent by taking the majority of the prohibitions out of the licence conditions and placing them directly in the regulations. Cabinet ought to fill these regulatory gaps by amending the *Pacific Aquaculture Regulations* and creating similar regulations on the east coast. Cabinet should further strengthen the sustainability of the aquaculture industry by amending the *CEAA, 2012* regulations to include aquaculture operations of a certain size.
**Chapter 9: Conclusion**

Aquaculture is an important industry in Canada. In addition to providing full-time employment to many remote communities, salmon aquaculture has attained a feed efficiency such that consumption of farmed salmon may pose a lower overall impact on wild ecosystems than harvesting wild salmon. In addition, feed efficiency and fish husbandry are constantly improving. Salmon and shellfish farming may be able to shift pressure away from wild fisheries that cannot sustain constant and growing demand. However, absent an effective regulatory regime, salmon farming may nonetheless pose unacceptable environmental risks through escapees and disease.

Despite the importance of aquaculture in Canada, the Canadian regulatory regime is flawed. Aquaculture regulations are vulnerable to constitutional challenge and contain inconsistent environmental standards between provinces. Despite the fact that aquaculture regulations have been struck down as *ultra vires* in British Columbia, the same type of aquaculture regulations operate in the Atlantic provinces. Rather than appeal the declaration of invalidity of provincial aquaculture laws in British Columbia, the federal government enacted regulations that only apply to that province. The result is constitutional uncertainty and a gap between the quality of regulations between the west and east coasts.

The purpose of this thesis is to clarify the federal and provincial powers to regulate aquaculture in order to provide a solid foundation for a consistent set of aquaculture regulations. By contrast to the *Morton* decision, I did not find that aquaculture is a “fishery” such that all provincial aquaculture regulations are *ultra vires*. In my view, while federal regulations must play a dominant role in aquaculture management, the provinces nonetheless have authority to regulate many aspects of aquaculture, such as benthic pollution, diseases, seafloor leases, and job safety. Furthermore, while the federal
government ought to take a leading role in tidal forms of finfish and shellfish aquaculture, the provinces have largely exclusive authority regarding tidal plant aquaculture and on-land aquaculture. The provinces also possess extensive authority regarding net-pen finfish sites in the Great Lakes.

   Provincial regulatory control over aquaculture is not absolute. Escapee regulations seek to protect wild fish in tidal waters in the national interest, which is an exclusively federal matter. Escapee concerns are also matter of national concern that only a regulatory body with national jurisdiction can effectively regulate. The federal government may be content to let the provinces regulate escapees on the east coast, but such provincial laws are likely unconstitutional. While Parliament’s authority in relation to licencing and diseases may not be exclusive, Parliament is the only entity with the power to create a national aquaculture regime that can effectively manage the trans-boundary diseases that flow from aquaculture sites. Parliament is also the only level of government that can regulate offshore aquaculture operations outside the boundaries of the provinces. Therefore, Parliament should enact and enforce a comprehensive, conservation-based regulatory regime on the east coast that regulates escapees, pollution, disease and other similar matters that effect wild fish.

   To encourage investment in aquaculture, Parliament should also solidify the rights and obligations of aquaculturists. First, Parliament should enact explicit legislative provisions that allow an aquaculturist to interfere with the public right to fish. Cabinet should also create regulations to authorize habitat harm and the release of deleterious substances under certain thresholds to avoid further private prosecutions. While
aquaculturists have called for clearer property rights in their cultured fish, the common law provides them with sufficient exclusive property rights over the fish within their net-pen.

Regardless of whether the federal government shoulders its regulatory responsibilities through amendments to the *Fisheries Act* or through a stand-alone aquaculture statute, the new laws must reflect a constitutional and consistent division of responsibilities. Canada’s laws must manage the aquaculture resource based on the best available evidence and with a strong measure of caution where the science is unclear. This is especially important given that aquaculture sites are no longer subject to environmental assessments. The federal government’s foray into aquaculture regulation through the *Pacific Aquaculture Regulations* is limited to British Columbia. The aquaculture industry is too large, and the environmental stakes too high, to have a patchwork of aquaculture laws that protect wild fish through differing, unconstitutional means.
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