

Natural Resources Law

CML 1105H

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Race Rocks: Protecting Inshore Marine Eco-Systems

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Figure 1: Race Rocks at High Tide

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¹ Photo credit: Garry Fletcher. Great Race Rock (with the lighthouse) is in the centre of the photo. There are additional reefs that are exposed only at low tide. The mountains in the background are the Olympic range in Washington State, on the south (American) side of the Strait of Juan de Fuca.

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Introduction

Canada is a country of incredible natural beauty and ecological diversity, a significant portion of which has been protected under a system of national and provincial parks and other reserves. One might think that it would be a straightforward matter to similarly protect another unique ecological zone. Especially if it was small, located in a relatively remote location, and there was no suggestion that it should be used for anything else.

This paper explores why this is not so simple in the context of inshore marine areas. Canada's constitutional / legal framework creates several gaps and overlaps with respect to the environment. The broader issue is not with any particular piece of legislation, but rather the sometimes-narrow context in which each was devised. This is further complicated by how the various statutory pieces fit together (or not) under the division of powers outlined in Canada's constitution.

These issues can frustrate even the most straightforward project that attempts to carve out a little bit of nature for the benefit of future generations, as exemplified by Race Rocks.

Location and Description

Race Rocks is a group of rocky islets located off the very southern tip of Vancouver Island, in the Strait of Juan de Fuca. These islets are the most southerly landmass on Canada's Pacific coast. The largest islet, Great Race Rock, covers approximately two hectares. The others are all far smaller. Most are little more than reefs, and not all break the surface on a full-time basis. The maximum elevation is less than 10 metres.

A more detailed description is provided in Appendix A.

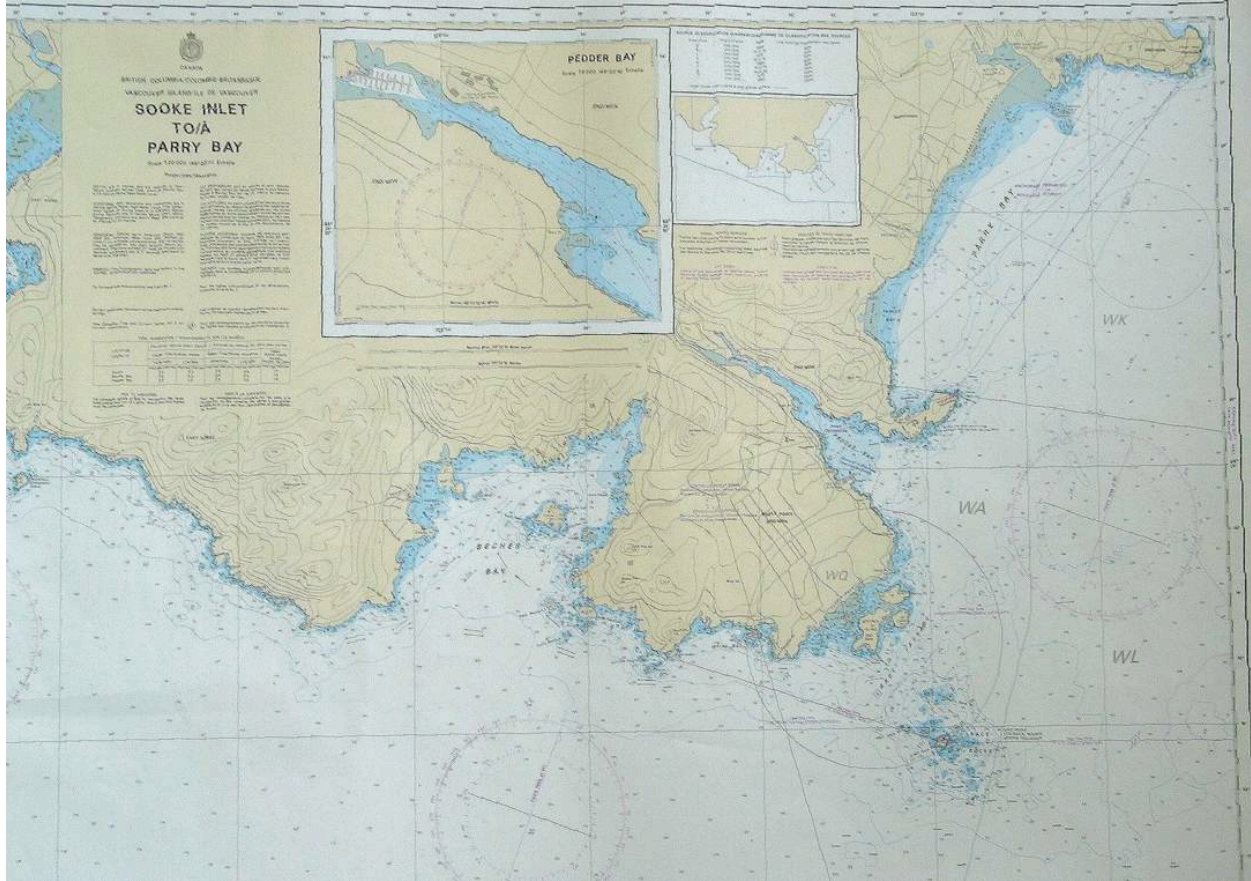


Figure 2: Southern Vancouver Island (Canadian Hydrographic Service)

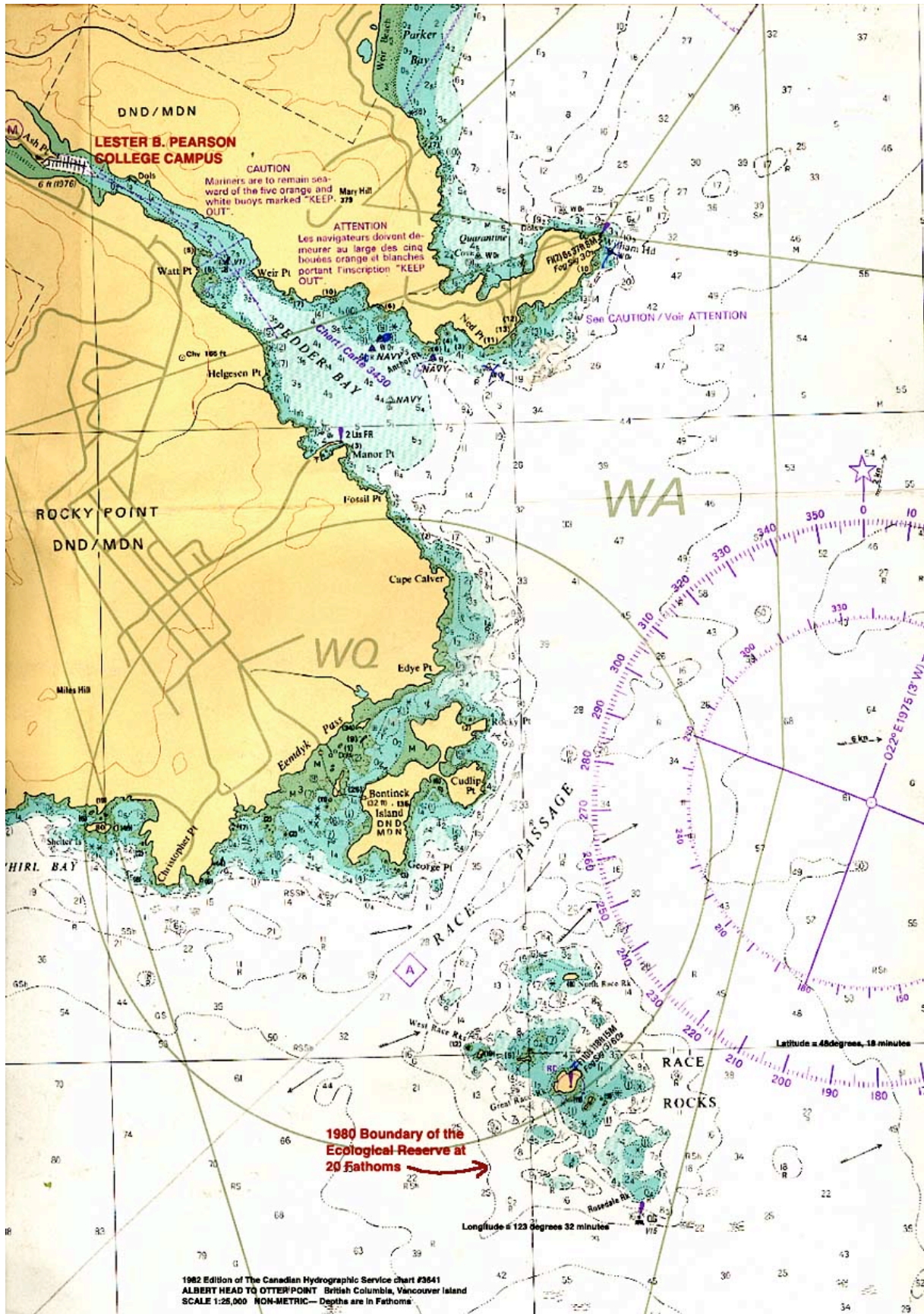


Figure 3: Race Rocks and Pedder Bay (Canadian Hydrographic Service)

Ownership and Management

Crown Ownership

Race Rocks has never been privately owned.² Initially an unorganized area within British North America³, greater Vancouver Island became a formal British colony in 1849. Increased shipping quickly exposed the nautical perils of Race Rocks, which are barely visible by day and impossible to see in fog or at night. Shipwrecks and loss of life were all too common⁴, which made Race Rocks the first priority for a lighthouse on the west coast. The Royal Navy constructed the Race Rocks lighthouse in 1860, which was prior to both Confederation in 1867, and British Columbia's entry into Confederation four years later.

Essentially all Crown land west of Alberta,⁵ including the Race Rocks islets, was transferred to the new Province of British Columbia when it was created in 1871. As the entire Canadian portion of the Strait of Juan de Fuca is contained within the traditional 12 nautical mile (22.25 km) territorial waters, even the undersea "lands" (i.e. seabed) surrounding Race Rocks belong to the Province.⁶

² As described elsewhere in this paper, local First Nations have used Race Rocks for a variety of purposes over the centuries. However, none of these societies recognized the concept of private ownership of real property.

³ The Hudson's Bay Company was the first *de facto* government of all of what is now British Columbia, but technically only enjoyed a trading monopoly, not actual ownership (unlike Rupert's Land in central/eastern Canada). See also the *Rupert's Land Act, 1868* (31-32 Victoria, c 105 (UK)), and the *Order of Her Majesty in Council Admitting Rupert's Land and the North-Western Territory into the Union, 1870* (Revised Statutes of Canada, vol. v.).

⁴ See <http://www.racerocks.com/racerock/history/shipwrecks/shipwreck.htm> for a partial list.

⁵ The usual exceptions included Indian reserves, military properties, federal harbours, and national parks, all of which were retained by the federal Crown. An additional exception unique to BC was the transfer of certain lands to the federal government for the purposes of constructing the national railway (*British Columbia Terms of Union (1871)*, clauses 10-11). Some of these railway lands later reverted to BC via the *Constitution Act, 1930* (20-21 George V, c 26 (UK)).

⁶ The ownership of the seabed was confirmed by the BC Attorney General's office in 1979, during the process by which the provincial ecological reserve was established.

The Dominion (federal) Government, however, remained in possession of Race Rocks through the operation of the lighthouse, albeit without formal authority.⁷ This apparent bureaucratic oversight was noticed in 1894, and rectified via a provincial order-in-council that “reserved” Great Race Rock to the federal government for the purposes of operating a lighthouse.⁸

A “reserve” is established under the authority of §15 of the *BC Land Act*⁹, and sets aside provincial Crown land for use by a federal or provincial “government body”. Only the Lieutenant Governor-in-Council (i.e. provincial cabinet) can create or cancel a “reserve”.

Provincial Ecological Reserve

Lester B Pearson United World College¹⁰ is located on nearby Pedder Bay. The academic program taught at the College includes a marine science course, and scuba diving is offered as an activity. The rich biological life at Race Rocks provides natural support for these programs. This led to the development of a strong relationship between the College and the various lighthouse keepers at Race Rocks.

Recognizing the fragile and unique ecology of Race Rocks, Garry Fletcher, then the marine science teacher at Pearson College, led a College-supported initiative to convince the BC

⁷ The federal government, per §91(9) and *The Third Schedule of The Constitution Act, 1867* (30-31 Victoria, c 3 (UK)) owns the lighthouse itself, but not the land underneath it. The same ownership “problem” occurred with other lighthouses in the region.

⁸ A copy of the order-in-council and associated correspondence is available online at <http://racerocks.ca/racerock/history/heritage/1997kansderson.htm>

⁹ RSBC 1996, c 245

¹⁰ www.pearsoncollege.ca

government to designate Race Rocks as a provincial ecological reserve. This project was successful, with the Race Rocks Ecological Reserve formally established in 1980.¹¹

The Race Rocks Ecological Reserve boundary extends to a depth of 20 fathoms¹² (36.6 metres).¹³ Since the seabed is provincial Crown land, the provincial ecological reserve includes both the islets and the “land” on the physical seabed. The water column (between the seabed and ocean surface) is excluded, since the oceans are within federal jurisdiction.¹⁴

The original BC ecological reserve boundary excluded Great Race Rock Island, since all of it had been set aside for the federal government back in 1894. When the Coast Guard completely “de-staffed” the lighthouse in 1997, the federal government no longer had any use or claim to Great Race Rock, with the exception of the lighthouse itself. The “reserve” established in 1894 per §15 of the BC *Land Act* was accordingly reduced to the 0.15 hectares comprising the actual lighthouse structure and related navigational aids. Great Race Rock Island, minus this bit, was then added to the provincial ecological reserve. Given the inherent risks to shipping posed by Race Rocks, the lighthouse (in some form) is expected to be required indefinitely.¹⁵

¹¹ A detailed history is available online at

<http://www.racerocks.com/racerock/history/rrehist.htm>

¹² A fathom is a nautical unit of measure, commonly used with respect to depth of the water. 1 fathom = 6 feet or 1.8 metres.

¹³ This depth is the maximum safe depth for recreational SCUBA diving. Due to the steep vertical nature of the sea floor surrounding Race Rocks, a deeper depth would not significantly enlarge the horizontal boundaries.

¹⁴ *The Constitution Act, 1867* reserves lighthouses and other aids to navigation (§91(9)), shipping (§91(10)), and fisheries (§91(11)) to the federal government.

¹⁵ The Canadian Coast Guard remains responsible for the operation and maintenance of the lighthouse and other aids to navigation. As the station has been fully automated since 1997, no day-to-day operational or other onsite supervision is required. Coast Guard maintenance personnel are flown in by helicopter as required.

BC ecological reserves are governed by the provisions of the provincial *Ecological Reserve Act*¹⁶ and the *Park Act*¹⁷. Since the Race Rocks Ecological Reserve is among those designated in *Schedule B* of the *Protected Areas of British Columbia Act*¹⁸, it enjoys an additional level of protection. While the reserve boundaries can be *expanded* through an order-in-council, the reserve cannot be decreased in size, or eliminated, without an express act of the BC Legislature.¹⁹

Pearson College has management responsibility for the Race Rocks Ecological Reserve, on behalf of BC Parks. The College provides a constant presence at Race Rocks in the form of an “eco-guardian” marine biologist, who maintains the residences and scientific facilities, supports teaching and research, and provides a human presence to safeguard against potential poaching. Garry Fletcher, who lives in nearby Metchosin, has served as the volunteer warden since the ecological reserve was created in 1980.²⁰

The terrestrial portions of the ecological reserve are closed to the public. A permit is required to land on any of the islets, which would normally only be granted in conjunction with permitted education or research activities (all of which also require a permit from BC Parks).

Federal Marine Protected Area

In the late 1990s, the federal government modernized the legislative framework associated with the effort to protect Canada’s oceans. The legal concept of the Marine Protected Area (MPA) was legislated for the purpose of protecting unique marine ecological zones that

¹⁶ RSBC 1996, c 103

¹⁷ RSBC 1996, c 344

¹⁸ SBC 2000, c 17

¹⁹ *Ecological Reserve Act*, §3(3) and §3(5)

²⁰ Volunteer wardens are not peace officers, and thus have no law enforcement powers.

exist within areas of federal jurisdiction, and is formally defined in §35 of the *Oceans Act*.²¹

These provisions build on international work emanating from the *Convention on Biological Diversity*²² and the International Union for the Conservation of Nature²³.

Race Rocks was announced as one of the first “pilot” marine protected areas in September 1998²⁴, although this did not equate to any legal status or additional level of protection. A formal consultative process with a broad range of “stakeholders” began work on comprehensive a set of consensus recommendations covering proposed boundaries of the MPA, management plan, etc. In September 2000, the federal and provincial governments jointly announced that Race Rocks would become the first official MPA on the Pacific Coast, extending the protection already afforded by the provincial ecological reserve there.²⁵ The corresponding regulations were published for comment in the *Canada Gazette*.

This plan was derailed within weeks as the result of a set of complex First Nations issues related to consultation, sovereignty & governance, treaty negotiations, fishing rights, and disputes with Fisheries and Oceans Canada²⁶. Most of these had little or nothing to do with Race Rocks *per se*²⁷, but the process to have Race Rocks designated as an MPA was halted for close to a decade.

²¹ SC 1996, c 31

²² <http://www.cbd.int/>

²³ <http://www.iucn.org/>

²⁴ <http://www.racerocks.com/racerock/admin/govtpages/davidanderson.htm>

²⁵ <http://www.racerocks.com/racerock/mpa/dhalsaw.htm>

²⁶ Previously known as the Department of Fisheries & Oceans, or more commonly, DFO.

²⁷ The detailed story behind the 2000 announcement, the events leading up to it, and the reasons why the original plan ultimately foundered may be found in Sean LeRoy, “[Public process and the creation of a marine protected area at Race Rocks, British Columbia](#)” (MSc Thesis, University of British Columbia, School of Community and Regional Planning, 2002) [unpublished].

A fresh round of stakeholder consultations began in 2009 through a newly constituted “advisory board”²⁸, pursuant to the *National Framework for Establishing and Managing Marine Protected Areas*.²⁹ Some of the same individuals are involved, but many new faces are at the table too. Race Rocks has yet to be formally designated as an MPA.³⁰ Fisheries and Oceans Canada remains responsible for the process.

While progress is being made towards designation, there is no committed timeframe for completion.³¹ Many of the issues that derailed the MPA designation in 2000 remain a concern.³² Local First Nations have consistently said they support the establishment of the MPA and actively participate in a wide range of activities associated with Race Rocks³³, but are not prepared to compromise their existing treaty rights or their position in the current negotiations regarding Aboriginal claims in BC. Considerable mistrust remains between the First Nations and the federal government, especially with respect to Aboriginal fishing rights and fisheries management.

²⁸ <http://www.racerocks.com/racerock/admin/rwab/rwab.htm>

²⁹ <http://www.dfo-mpo.gc.ca/oceans/publications/mpaframework-cadre2pm/index-eng.asp>

³⁰ Fourteen years after the first announcement, Race Rocks is now listed as an “area of interest” that is under consideration to be designated as an MPA. This term is as legally meaningless as “pilot MPA”.

³¹ The advisory board has not met since November 2010.

³² <http://www.pac.dfo-mpo.gc.ca/consultation/oceans/race/index-eng.htm>

³³ <http://www.racerocks.com/racerock/firstnations/first.htm>

Ecological Threats and Legal Protection

Race Rocks is not only a unique ecosystem, but also a particularly important one given the range of threatened or endangered species that are found there. Race Rocks' status as a BC ecological reserve provides general legal protection to the natural habitat there. Landing is prohibited on any of the islets, unless a permit is obtained in advance³⁴. Hunting, other taking of most species, and interference with habitat is similarly prohibited through its designation as a BC ecological reserve.

Various protections have been, or potentially could be, added for specific categories of species. This section explores the legal and regulatory framework in this regard, in the context of the threats to each species group. The narrow focus or scope of many environmental protection laws, coupled with the constitutional constraints associated with ownership and management of Race Rocks, result in both gaps and overlaps in the law.

Marine Mammals

Marine mammals (e.g. whales, orcas, seals, and sea lions) are covered by the federal *Marine Mammal Regulations*³⁵ (MMR), which are issued under the authority of the *Fisheries Act*³⁶. A license is required to “fish” (i.e. hunt) any marine mammal.

Some sea lion species found at Race Rocks are considered threatened or endangered, as are all sea otter and whale/orca species that are occasionally seen there. In addition to hunting

³⁴ Permits may legally be granted only for scientific research and education purposes.

³⁵ SOR/93-56

³⁶ RSC 1985, c F-14

being prohibited within the provincial ecological reserve boundary, Fisheries and Oceans Canada generally does not issue “fishing” (i.e. hunting) licenses for marine mammals on the west coast.³⁷

Section 7 of the *MMR* prohibits the disturbance of any marine mammal; this is discussed in greater detail below in the “Eco-Tourism” section.

Fish and Shellfish

Since the Province of British Columbia owns both the Race Rocks islets and the neighboring seabed, federal MPA designation would legally affect only the water column and fisheries management. In the meantime, Fisheries and Oceans Canada, supported by BC Parks, has prohibited almost all harvesting of marine life within the boundaries of the provincial ecological reserve.

Race Rocks has been a designated “Rockfish Conservation Area” since 2005, which prohibits most fishing activities³⁸ to a depth of 40 metres surrounding the islets.³⁹ Harvesting of lingcod and rockfish is specifically prohibited at Race Rocks.⁴⁰ Harvesting of shellfish is prohibited within 0.5 nautical miles (925 metres) of Great Race Rocks.⁴¹ Sport (recreational)

³⁷ The now-defunct Victoria Sealand was issued a license in the early 1980s to permit the capture of several orcas in the vicinity of Race Rocks. This would be unimaginable today.

³⁸ The only permitted fishing activities are those listed at <http://www.pac.dfo-mpo.gc.ca/fm-gp/maps-cartes/rca-ac/permis-permis-eng.htm> Nearby Eemdyk Passage (located between Bentinck Island and Vancouver Island) is also a designated Rockfish Conservation Area: <http://www.pac.dfo-mpo.gc.ca/fm-gp/maps-cartes/rca-ac/rca-ac/south-sud/BentinckRaceRocksChart3461-eng.htm>

³⁹ The federal “no fishing” boundary down to a depth of 40 metres is slightly larger than the provincial ecological reserve boundary of 36.6 metres (20 fathoms).

⁴⁰ <http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/tidal-maree/a-s19-eng.htm>

⁴¹ *Ibid.*

fishing of transient species of fish (i.e. salmon and halibut) is technically allowed.⁴² Commercial fishing has been prohibited in the area for some years.

At Race Rocks, some fish species and almost all shellfish live on the ocean floor, which is owned by the province. The removal of any species is prohibited within the boundaries of a BC ecological reserve.⁴³ As the water column is excluded from the confines of the Race Rocks Ecological Reserve (since it is federal domain), the provincial prohibition on removal of species from an ecological reserve does not apply to fish or mammals not actually on the ocean floor. Furthermore, since responsibility for fisheries is the constitutional domain of the federal government⁴⁴, the legal doctrine of paramountcy means federal law supersedes provincial law when there is any conflict. In other words, the province's "no take" rule within the ecological reserve is trumped by any federal fisheries regulation that permits otherwise.

As described more fully below in the "First Nations Claims" section, Aboriginals may hold unrestricted fishing rights in local waters, including at Race Rocks.

Birds

A number of bird species depend on Race Rocks. Some birds nest there, while others nest in nearby forested areas, principally those located on the nearby DND properties at CFAD Rocky Point and Mary Hill. Some avian species can be found in both types of locations (e.g. cormorants nest on cliff faces at Race Rocks, as well as in old growth trees at Rocky Point). Many species,

⁴² There is little ecological basis to prohibit fishing for transient species within the relatively small ecological reserve, as one could move a few metres over and legally catch the same fish. However, allowing *any* fishing within the ecological reserve boundaries significantly complicates enforcement. Anchoring and bottom fishing within the reserve are both prohibited since these negatively impact habitat on the ocean floor.

⁴³ *Ecological Reserve Regulations*, BC Reg 335/75 at §1

⁴⁴ *The Constitution Act, 1867* at §91, paragraph 12

regardless of where they nest, find their food supply in the nutrient-rich waters surrounding Race Rocks. Species that prefer sheltered waters (e.g. herons) are generally not found there.

Migratory birds come under the constitutional jurisdiction of the federal government, since birds do not restrict their movements to a particular province. Bird habitat can be protected federally under the *Migratory Birds Convention Act*⁴⁵ (managed by Environment Canada), which provides that a geographical area may be designated as a “Migratory Bird Sanctuary”.⁴⁶ More stringent protections are available for “National Wildlife Areas” designated under the provisions of the *Canada Wildlife Act*⁴⁷ (CWA).

The Race Rocks islets cannot be designated as either a “Migratory Bird Sanctuary” or as a “National Wildlife Area” since they are not federal land. Being designated as an MPA will not provide any additional protection for avian wildlife at Race Rocks, since neither Fisheries and Oceans Canada nor the *Oceans Act* has any responsibility for birds.

Vegetation

No terrestrial vegetation of ecological importance exists on Great Race Rock. Invasive plant species are removed as they are discovered. There is no terrestrial vegetation on any of the other islets.

⁴⁵ SC 1994, c 22

⁴⁶ The nearby Esquimalt Lagoon has been so designated since 1931:

<http://www.esquimaltlagoon.com/> and

<http://www.crd.bc.ca/watersheds/protection/esquimaltlagoon/> This lagoon, located approximately 15 km NE of Race Rocks, is federally owned as it was historically part of the Esquimalt naval base.

⁴⁷ RSC 1985, c W-9

The undersea and sub-tidal portions of the ecological reserve contain a rich variety of marine vegetation. This plant life is protected by the blanket prohibition on landing, anchoring, and the taking or disturbance of any flora within the boundaries of the reserve.

Poaching

Lighthouse keepers and eco-guardians at Race Rocks have reported occasional poaching over the years. Marine mammals have been found shot on occasion⁴⁸, although sometimes it cannot be ascertained precisely where this occurred.⁴⁹ People are regularly seen fishing within the reserve boundaries. Most appear to be doing this out of ignorance, not being aware that Race Rocks is an ecological reserve, and/or that most fishing is prohibited there. Most stop immediately when this is explained to them by the resident eco-guardian.

A few persist even after being warned. Unfortunately, there are few enforcement options available. The resident eco-guardians and the volunteer warden of the ecological reserve are not peace officers, and thus have no enforcement powers of their own. DFO enforcement officers do not routinely patrol southern Vancouver Island since there is little commercial fishing in the area. Local RCMP detachments are not equipped with patrol boats.⁵⁰

⁴⁸ Any hunting of a marine mammal would be illegal absent a federal license issued by DFO, which are not normally issued on the Pacific coast.

⁴⁹ Marine mammals such as sea lions can travel great distances, and many found at Race Rocks are transient. Tagged birds and mammals are routinely identified on both sides of the international border.

⁵⁰ Most of the RCMP presence in BC is the result of municipal and provincial policing contracts; the RCMP is the *de facto* provincial police. Municipalities would not support their constrained police budgets being diverted to fisheries enforcement, which is a federal responsibility. The RCMP's marine division has larger patrol boats capable of extended operations. None are based in the area, and in any case these are focused on criminal interdiction efforts (e.g. drug smuggling), not illegal fishing.

A related issue is that, unlike terrestrial parks, the Race Rocks Ecological Reserve has no obvious boundary marker such as a fence. To complicate things further, specific boundary lines are not identical:

- The provincial ecological reserve boundary extends to the depth of 36.6 metres (20 fathoms).
- The federal Rockfish Conservation Area boundary extends to the depth of 40 metres.
- The federal prohibition on harvesting shellfish extends horizontally to a radius of 925 metres (0.5 nautical miles) from Great Race Rocks.

In other words, the (il)legality of hunting, fishing, or other harvesting activity will depend upon the specific activity in question, and the law or regulation that prohibits it in the vicinity of Race Rocks. Any prosecution would be problematic as a result of the Crown's burden to prove that the impugned activity took place inside a designated boundary. Technical evidence (e.g. GPS coordinates and bathymetric data) would be required to prove that the accused was inside the relevant boundary line.

A unique solution has been found in the case of American poachers. United States law requires any boater who has departed the U.S. to report to U.S. Customs upon re-entry to the U.S.⁵¹ American law defines "departure" (in this context) to include any touching of the sea floor, shore, or land in another country, and "touching" includes indirect means such as a dropped anchor or a fishing line that touches bottom. The U.S. Customs and Border Patrol (US CBP) is well known for aggressively pursuing prosecution of all offenders, and has welcomed calls from Race Rocks advising of American poachers.⁵² While powerless to address poaching in Canada *per se*, the US CBP will arrest the identified boaters if they fail to report upon returning

⁵¹ 19 USC 1433

⁵² American boaters can be readily identified by the registration number of their vessels.

across the border. As the minimum fine for failing to report is US\$5,000, this penalty provides a significant, albeit indirect, consequence for “poaching” in these cases.⁵³

⁵³ The US CBP will also seize any illicitly obtained fish, etc. on the basis that it is imported food that was not declared.

Related Legal Issues

First Nations Claims

Treaty negotiations with First Nations are currently underway in most parts of British Columbia. Few treaties were agreed to as Europeans began to settle the west coast. The few exceptions include the fourteen Douglas Treaties that purportedly procured significant portions of Vancouver Island for the benefit of the Crown in the early 1850s. Douglas Treaties were signed with all First Nations in the greater Victoria area, including what are now known as the Songhees (Victoria), Esquimalt, Beecher Bay, and Sooke bands.⁵⁴

In general terms, each Douglas Treaty ostensibly purchased a specified tract of land from a local Indian tribe, in exchange for what would now be considered very modest compensation.⁵⁵ Each Aboriginal community retained their established settlements and enclosed fields for their continued use, was promised "liberty to hunt" on unoccupied land, and has the right "to carry on their fisheries as formerly".⁵⁶ There is consensus that these fishing rights extend to coastal waters; not all surrendered lands contained fisheries within their terrestrial boundaries. Hunting rights were qualified with the restriction that they applied only on "the unoccupied lands", which presumably meant they would diminish over time as the land was expressly purchased for

⁵⁴ For a brief overview of the Douglas Treaties, please see <http://www.gov.bc.ca/arr/treaty/landmark/douglas/default.html>. The terms were similar in each treaty, other than the description of the purchased lands and the precise payment negotiated: <http://www.aadnc-aandc.gc.ca/eng/1100100029052>

⁵⁵ Payment was made in the form of wool blankets. In most cases, this amounted to three blankets per adult male: Wilson Duff, "The Fort Victoria Treaties" (1969) 3 BC Studies 3.

⁵⁶ A detailed discussion of the Douglas Treaties is included in *R v Bartleman*, 1984 CanLII 547 (BC CA); 12 DLR (4th) 73; 13 CCC (3d) 488; 55 BCLR 78. The judgment details the many irregularities in the treaty documentation (e.g. signatures recorded on a blank piece of paper, with terms apparently filled in later by Douglas' staff). Also see *Duff*, supra.

settlement purposes.⁵⁷ The treaty provisions regarding fishing rights contain no similar qualification.

Race Rocks, which was never used for permanent habitation, was purportedly conveyed to the Crown along with all other lands in the area via the relevant Douglas Treaties in 1850.⁵⁸ The Scia'new First Nation, the descendants of these Aboriginal signatories, is currently at Stage 4 of the six-stage treaty negotiation process.⁵⁹ While fishing rights are among the many items being discussed in the negotiations, it would appear from Douglas Treaty jurisprudence⁶⁰ that the Scia'new already have the treaty right “to carry on their fisheries as formerly” in the waters around Race Rocks.⁶¹ The precise definition of that *sui generis* right, in the context of the

⁵⁷ It is unlikely that the First Nation “signatories” appreciated to what degree these lands would be settled and developed over time. Some of the purchased lands had very few inhabitants when purchased. A census taken around the time of the Douglas Treaties identified only 59 aboriginal residents in the entire Metchosin area, and 177 in the Rocky Point/Beecher Bay area. Picturesque Metchosin alone has a current population of 5000, and this number would undoubtedly increase substantially if Metchosin ever abandoned its minimum lot sizes (currently 1 or 4 hectares, depending on location).

⁵⁸ Race Rocks is located slightly southwest of Pedder Bay, which is named “Inlet of Whoyung” in the Douglas Treaties. Douglas Treaty #7 with the Ka-ky-aakan Family covered what is now the District of Metchosin, as far west as Pedder Bay. Douglas Treaty #8 with the Chewhaytsum Family covered Pedder Bay west to the Sooke Basin. Both treaties were signed on May 1st, 1850.

⁵⁹ The Scia'new First Nation is part of the Te'mexw Treaty Association:

<http://www.gov.bc.ca/arr/firstnation/temexw/> Beecher Bay Indian Reserve #1, current home to the Scia'new First Nation, is located on Beecher Bay (west of Rocky Point). There is no Indian Reserve in Metchosin.

⁶⁰ See *R v White and Bob* (1964), 52 WWR 193, 50 DLR (2d) 613, affirmed 52 DLR (2d) 48 In (SCC) [BC], and *Saanichton Marina Ltd. v Claxton*, 1987 CanLII 2805 (BC SC); 43 DLR (4th) 481; [1988] 1 WWR 540; [1987] 4 CNLR 48; 18 BCLR (2d) 217, affirmed 1989 CanLII 2721 (BC CA); [1989] 5 WWR 82; [1989] 3 CNLR 46; 36 BCLR (2d) 79. See also *R v Sparrow*, [1990] 1 SCR 1075, 1990 CanLII 104 (SCC).

⁶¹ It is believed both the Ka-ky-aakan and the Chewhaytsum Families fished in the waters around Race Rocks. Both are from the Clallam Tribe, now known as the Scia'new First Nation (or Beecher Bay band). The Clallam “emigrated” from Washington State in the mid-1800s, but have always been treated equally with other aboriginal inhabitants in the area. The Songhees and T'Sou-ke First Nations also claim Douglas Treaty fishing rights throughout the Strait of Juan de Fuca.

established BC ecological reserve and proposed MPA at Race Rocks, the *Fisheries Act*⁶² and other federal legislation pertaining to the oceans, and §88 of the *Indian Act*⁶³, remains to be determined.

All current Crown land within the former territory of the Scia'new, which would include Race Rocks, is also theoretically on the table for discussion.⁶⁴ Some academic commentary regarding the Douglas Treaties has suggested that at least some of the First Nations representatives at the time believed their Douglas Treaty was one of “peace and friendship”, not a real estate transaction that conveyed their lands to the British Crown. They point to the numerous irregularities in the documentation, coupled with the lack of evidence that any of the signatories understood the other’s language. These analyses suggest at least some of the First Nations participants may have seen the blankets and similar items received from the Hudson’s Bay Company as simply tokens of friendship and good faith on behalf of the Crown, or at most compensation for sharing their traditional territories. Hunting and fishing rights documented in the treaties were similarly promises on the Crown’s honour that the First Nations could continue their traditional activities despite the influx of white settlers.⁶⁵ Despite the consistent wording of the Douglas Treaty documentation, the specific understanding of what each Treaty meant may have varied from community to community.⁶⁶

⁶² RSC 1985, c F-14

⁶³ RSC 1985, c I-5

⁶⁴ Additional Crown properties in the vicinity of Race Rocks would include CFAD Rocky Point, the DND lands at Mary Hill, and the federal prison at William Head.

⁶⁵ This theme is explored in Douglas C. Harris, “A Court Between: Aboriginal and Treaty Rights in the British Columbia Court of Appeal” (2009) 162 BC Studies 35; and Harriet Van Wart, "[A Bibliography and Discussion of Douglas Treaty Materials: Phase One of Research on the Tsawout First Nation's Douglas Treaty](#)" (Community Governance Project report, University of Victoria, Faculty of Human and Social Development, Indigenous Governance) [unpublished].

⁶⁶ This is especially so where terms were filled in later by HBC personnel.

The question of whether Aboriginal title to land was actually sold or surrendered via the Douglas Treaties has never been litigated in court. Hunting and fishing rights described in the Douglas Treaties have been judicially confirmed as treaty rights that bind the Crown.⁶⁷

Eco-Tourism

In theory, Race Rocks and other BC ecological reserves are closed to the public. Entry by motorized vehicle is specifically prohibited.⁶⁸ The unique structure of Race Rocks negates this restriction, since the provincial ecological reserve boundaries include only the islets and the sea floor (to a depth of ~37 metres). The water column is excluded, since it is the domain of the federal government. This means a boater can legally approach any of the islets within the ~250 hectare reserve, so long as the boat does not touch shore or bottom. Any close approach is likely to disturb the wildlife in the reserve, although boaters routinely do so.

A number of commercial operators regularly bring eco-tourists to Race Rocks by boat for “whale-watching” tours. Dive charters and individual recreational divers also frequent the reserve. At present, there is little regulation governing these activities within the reserve. The federal *Marine Mammal Regulations (MMR)* prohibit anyone from disturbing marine mammals. However, there is nothing in the current *MMR* that specifically addresses whale-watching or similar eco-tourism, or otherwise defines “disturb”. There are guidelines for responsible whale watching, but being voluntary, these cannot be enforced.⁶⁹ The Race Rocks “daily log” is replete

⁶⁷ *R v White and Bob, R v Bartleman, and Saanichton Marina Ltd. v Claxton*, all supra.

⁶⁸ *Ecological Reserve Regulations*, BC Reg 335/75 at §1. Race Rocks is located far enough offshore, and in such dangerous waters, that only a very hardy few arrive by non-motorized means.

⁶⁹ <http://www.pac.dfo-mpo.gc.ca/fm-gp/species-especes/mammals-mammiferes/view-observer-eng.htm>

with reports from the eco-guardians about irresponsible boaters, some of whom are tour boat operators.

Fisheries and Oceans Canada has been considering changes to the *MMR* for at least the past nine years⁷⁰, and a completely revised draft *MMR* was posted in the *Canada Gazette* for comment in March 2012.⁷¹ Specific amendments include a multi-faceted definition of “disturb”, and a prohibition of approaching within 100 metres of marine mammals on land or sea. Enforcement of these approach restrictions would go a long way towards protecting the marine mammals at Race Rocks.⁷²

Military Activity

The nearby CFAD Rocky Point’s primary military purpose is to store naval munitions.⁷³ Infantry training is also occasionally conducted on the base, often in conjunction with naval forces (e.g. amphibious landings with helicopter support). Blasting is regularly conducted on Bentinck Island,⁷⁴ for the purposes of testing and disposal of munitions. Underwater demolition training is conducted in nearby Whirl Bay.

Race Rocks is located within two designated military exercise areas. Bentinck Island is the epicenter of military exercise area “WQ”, which extends horizontally to a radius of 1 nautical mile (~2km) and vertically to 3000’ (914 metres).⁷⁵ Approximately 50% of the Race Rocks Ecological Reserve, including all of Great Race Rock, is contained within this circle. Area “WQ” is essentially a safety zone within which a shock wave could theoretically be felt or blast debris

⁷⁰ <http://www.pac.dfo-mpo.gc.ca/consultation/fisheries-peche/mamm-mar/index-eng.htm>

⁷¹ <http://gazette.gc.ca/rp-pr/p1/2012/2012-03-24/html/reg2-eng.html>

⁷² DFO, DND, and law enforcement personnel are exempt from the new approach restrictions.

⁷³ Naval warships attend in Pedder Bay to be re-supplied.

⁷⁴ Bentinck Island is part of CFAD Rocky Point, and is located 2 km north of Race Rocks.

⁷⁵ See Figure 3 above.

could fall, although the actual radius of such blast effects is normally far smaller. Many of explosions at Bentinck Island are routinely heard at considerable distances⁷⁶, and often result in marine mammals at Race Rocks stampeding into the water. The military has agreed to restrict blasts to five minute intervals in order to minimize the disturbance to nearby wildlife, but eco-guardian reports indicate this is not always honoured.

Race Rocks is also located at the western end of military exercise area “WA”, a portion of the Strait of Juan de Fuca that is used for general naval training (some of which includes helicopter operations). Live firing is not conducted within this area.

From a legal perspective, a “military exercise area” is an advisory designation only, and merely indicates that the specified area is used for military training from time to time.⁷⁷ The public can only be excluded if the military exercise area is also designated as a “Defence Controlled Access Area” pursuant to the *Defence Controlled Access Area Regulations*.⁷⁸ Neither area “WA” nor area “WQ” is so designated. CFAD Rocky Point is (understandably) designated as a Defence Controlled Access Area, from which the public is normally excluded.⁷⁹

Interference from Aircraft

Canadian and American military and coast guard helicopters conduct training operations in the vicinity of Race Rocks. Maintenance personnel for the lighthouse and related aids to

⁷⁶ Bentinck Island blasting is routinely heard in the Village of Metchosin, a distance of 9 km, and occasionally as far as 20 km away in Victoria.

⁷⁷ Military exercise areas are documented on marine and aeronautical charts, and in Notices to Mariners (NOTMAR) and Notices to Airmen (NOTAMs).

⁷⁸ SOR 86/957, issued under the authority of the *National Defence Act*, RSC 1985, c N-5 at §273.1

⁷⁹ Scientists are occasionally allowed into the old growth forest area on the base, for the purpose of studying the bird populations that nest there.

navigation are flown in by helicopter. Private aircraft are often observed at low altitudes, with those on board presumably engaging in “sightseeing” of the lighthouse and marine mammals.

Aircraft of any size will disturb the birds and marine mammals in the reserve, and the results can be deadly.⁸⁰ There are currently no legal prohibitions on low flying, since the area is unrestricted airspace. Neither the boundaries of the current provincial ecological reserve nor the proposed MPA extend to the airspace above.

Transport Canada is responsible for aeronautical regulations.⁸¹ This Department’s focus is usually directed at keeping birds away from aircraft for safety reasons, not protecting avian or other wildlife.⁸² The new (proposed) *Marine Mammal Regulations* (described above) prohibit aircraft from approaching marine mammals within a 926 metres (0.5 nautical mile) radius when operating below 305 metres (1000’).⁸³ As with other approach restrictions, DFO, DND, and law enforcement personnel are exempt. Unfortunately for the marine mammals and birds at Race Rocks, the bulk of the aircraft that overfly Race Rocks at low altitude come within this exemption.

⁸⁰ One particularly ill-timed maintenance visit by helicopter resulted in mass deaths of gull chicks: <http://www.racerocks.com/racerock/archives/vidgullkill.htm>

⁸¹ These collectively form the *Canadian Aviation Regulations*, or *CARs*: <http://www.tc.gc.ca/eng/civilaviation/regserv/cars/menu.htm>

⁸² A number of aircraft crashes every year are caused by bird strikes. Larger airports are required to include bird abatement in their safety programs. These activities usually include using noisemakers to scare off birds, eliminating nesting habitat and sources of food, and using natural predators such as raptors to keep birds away.

⁸³ In the case of any inconsistency between the *MMR* and the *Canadian Aviation Regulations*, the latter prevail.

Analysis

There is no dispute that Race Rocks is an irreplaceable ecological resource that should be protected. In a perfect world there would be a specific protective law that could delineate Race Rocks as an area to be safeguarded for the benefit of future generations.

Of course, the “real world” of law typically offers less than perfect solutions, and Race Rocks is no exception. The constitutional division of powers in Canada means responsibility for this eco-system is currently shared between the federal and provincial (i.e. BC) governments. The different genesis and rationale behind the various statutes that have been, or could potentially be, applied will each result in relatively greater or lesser protection. All of this is complicated by the outstanding First Nations claims and treaty negotiations.

The following sections examine the pros and cons of several approaches that could be taken with regards to protecting Race Rocks for the future. As this paper is focused on legal analysis, no opinion will be expressed on any political aspects of these different legal approaches.

Provincial Stewardship

BC’s *Ecological Reserves Act* provides an ideal solution from the perspective of protecting fragile eco-systems. Race Rocks has been designated as a protected ecological reserve since 1980. Anything that might result in harm is prohibited, even entry. Since Race Rocks is designated under *Schedule B* of the *Protected Areas of British Columbia Act*, the Reserve cannot be diminished or eliminated without an express act of the BC legislature.

The major limitation with the provincial *Ecological Reserves Act* is that it applies only to areas within provincial domain. In the context of Race Rocks, this excludes the water column and anything concerning fisheries management, including protection of marine mammals. Fisheries and Oceans Canada is generally in agreement with the need to protect Race Rocks, and accordingly has closed it to all fishing other than trolling for transient species such as salmon. However, this is strictly a discretionary measure that could be reversed at any time.

Canada's constitutional separation of powers under §§91-92 makes it impossible for federal responsibilities for the oceans and fisheries to be transferred to British Columbia, even for the relatively small area contained within the Race Rocks Ecological Reserve.

Federal Stewardship

Federal law provides several possible solutions for protecting the eco-system at Race Rocks:

- Designation as a Marine Protected Area (MPA) under the *Oceans Act*
- Designation as a “Migratory Bird Sanctuary” under the *Migratory Birds Convention Act*
- Designation as a “National Wildlife Areas” under the *Canada Wildlife Act*
- Designation as a Marine Conservation Area (MCA) under the *Canada National Marine Conservation Areas Act*⁸⁴.

As described above, efforts have been underway for over a decade to designate the water column contained within the provincial ecological reserve boundaries as an MPA under the *Oceans Act*. While this would change little in terms of fisheries restrictions already in place,

⁸⁴ SC 2002, c 18. Per §4(2), an area that would otherwise become an MCA is designated as a Marine Conservation Area Reserve (MCAR) if it is subject to a First Nations claim.

MPA designation would be an important symbolic statement on the part of the federal government.

There are two major limitations associated with designation as an MPA. First, the *Oceans Act*, like the *Fisheries Act*, is entirely discretionary in nature, so any designation or regulation made under its authority can be changed or reversed at a future date.⁸⁵ Second, the mandate of the *Oceans Act* is limited to federal waters and fisheries. In the context of the terrestrial portions of Race Rocks and surrounding seabed being owned by the province, significant portions of the eco-system at Race Rocks are not covered by the *Oceans Act* (e.g. birds).

Race Rocks cannot be designated as either a Migratory Bird Sanctuary or as a National Wildlife Area since the federal government does not own the land there. A National Wildlife Area can include the territorial seas of Canada,⁸⁶ which includes the waters around Race Rocks, but this would be of little value without the inclusion of the islets.

By comparison, the relatively new *Canada National Marine Conservation Areas Act* (*CNMCAA*) enables protection of integrated eco-systems, both terrestrial and aquatic. This legislation is being used to create the proposed the Gwai Haanas National Marine Conservation Reserve and Haida Heritage Site⁸⁷ and the Southern Strait of Georgia National Marine Conservation Area Reserve⁸⁸. Unlike the *Oceans Act*, the *CNMCAA*'s entire *raison d'être* is conservation:

4. (1) Marine conservation areas are established in accordance with this Act for the purpose of protecting and conserving representative marine areas for the benefit, education and enjoyment of the people of Canada and the world.

⁸⁵ Legal discretion also makes it very difficult to successfully challenge a government decision in court.

⁸⁶ *Canada Wildlife Act* at §2(1)

⁸⁷ <http://www.pc.gc.ca/eng/pn-np/bc/gwaiihaanas/index.aspx>

⁸⁸ http://www.pc.gc.ca/progs/amnc-nmca/cnamnc-cnmca/dgs-ssg/index_e.asp

...

(3) Marine conservation areas shall be managed and used in a sustainable manner that meets the needs of present and future generations without compromising the structure and function of the ecosystems, including the submerged lands and water column, with which they are associated.

(4) Each marine conservation area shall be divided into zones, which must include at least one zone that fosters and encourages ecologically sustainable use of marine resources and at least one zone that fully protects special features or sensitive elements of ecosystems, and may include other types of zones.

...

9. (3) In order to protect marine ecosystems and maintain marine biodiversity, the primary considerations in the development and modification of management plans and interim management plans shall be principles of ecosystem management and the precautionary principle.⁸⁹

MCAs are created and enlarged by Order-in-Council, but cannot be diminished or eliminated without the concurrence of Parliament.⁹⁰ Ministerial responsibility for the *CNMCAA* rests with the Minister responsible for the Parks Canada Agency, whose mandate is conservation and sustainability.⁹¹

While the *CNMCAA* applies only to federal lands and waters, the establishment of both the Gwai Haanas and the South Georgia reserves included the transfer of provincially owned land and seabed to the federal government for inclusion in these MCARs. In theory, the same could be done at Race Rocks. Provincial involvement would be limited to a consultative role if the entire area were transferred to federal ownership per the *CNMCAA*.⁹²

⁸⁹ The *CNMCAA* also contains detailed reporting requirements.

⁹⁰ *Canada National Marine Conservation Areas Act*, at §§6-7.

⁹¹ By comparison, the Minister of Fisheries and Oceans has historically often prioritized exploitation over conservation and sustainability.

⁹² §10 requires the Minister to consult with a variety of groups, including the relevant provincial government.

Joint Federal-Provincial Stewardship

This would extend the current informal coordination by matching the existing provincial ecological reserve with the formal designation of a corresponding federal MPA. From a legal perspective, this would provide relatively complete protection, albeit involving two different levels of government with different political masters and possibly different priorities. The *Oceans Act* and the *Fisheries Act*, whose provisions do not prioritize conservation and sustainability, would largely govern the federal approach.

Legal Gaps

Looking beyond the issues discussed above, there are three key gaps with regards to managing the Race Rocks eco-system today:

- Military activity
- Protecting marine mammals
- Law enforcement.

Military activity: DND activities are exempt from provisions such as the *Marine Mammal Regulations*. This is of little concern in most areas, but Race Rocks is different due to the proximity of CFAD Rocky Point (especially the blasting that routinely takes place on Bentinck Island), and because of Race Rocks' inclusion in military exercise areas WA and WQ. The challenge is to ensure DND incorporates environmental concerns into all of its activities in the area; this would likely require commitment at senior levels of DND.

Marine Mammal Protection: The current voluntary agreements among eco-tourism operators are unenforceable, and violations are documented all too frequently. The amendments to the *Marine Mammal Regulations* that are currently in the final stages of promulgation provide a comprehensive solution to this, if appropriately enforced.

Enforcement: The eco-guardians employed by Pearson College possess no enforcement authority beyond the ability (like anyone) to report violators. The volunteer warden appointed under the *BC Ecological Reserves Act* is similarly without meaningful authority.

Long-term protection of the fragile eco-systems at Race Rocks will require meaningful capability for law enforcement in the area. Current provincial laws in this respect present significant limitations and constraints. Federal laws, especially under the *Oceans Act*, the *Fisheries Act*, the updated (proposed) version of the *Marine Mammal Regulations*, and the *CNMCAA* all provide for stiff penalties. Federal fisheries officers are already authorized and enabled to carry out enforcement of these Acts. While tasking priorities would always remain a concern, protection of Race Rocks under the *CNMCAA* would come with an existing solution to the law enforcement challenge.

Conclusion

From a legal and constitutional perspective, the most comprehensive protection for Race Rocks would involve the Province of British Columbia transferring the islets and neighboring seabed to the federal government, followed by designation of Race Rocks as a Marine Conservation area under the *CNMCAA*.⁹³ This would place stewardship of Race Rocks under one government and one minister.

The alternate approaches all involve significant legislative, constitutional, and ministerial gaps that leave major eco-systems at Race Rocks without complete protection.

An outright fishing ban within the boundaries of the Race Rocks reserve would greatly simplify enforcement and prosecution.

Regardless of the approach taken, continued involvement of the local First Nations is essential, given their Douglas Treaty fishing rights and various Aboriginal claims currently being negotiated. The First Nations perspective is that they should be one of three governments sharing decision-making authority as equals, and not merely labelled as just another stakeholder to be “consulted” (i.e. possibly ignored).

⁹³ Whether the Province of British Columbia would actually agree to do so is a political question beyond the scope of this paper.

Appendix A: Detailed Description of Race Rocks

Location and Physical Description

Race Rocks is a group of rocky islets located off the very southern tip of Vancouver Island, in the Strait of Juan de Fuca.⁹⁴ These islets are the most southerly landmass on Canada's west coast. The largest islet, Great Race Rock, covers approximately two hectares. The others are all far smaller. Most are little more than reefs, and not all break the surface on a full-time basis. The maximum elevation is less than 10 metres.

Great Race Rock contains a number of structures created by humans, including a lighthouse, two houses, electrical power generation facilities (and associated fuel storage), a dock, boathouse, and a helicopter landing pad. Vegetation is limited to grasses and flowers. There are no structures or terrestrial vegetation on any of the other islets.

The portion of Vancouver Island immediately adjacent to Race Rocks is rural and relatively lightly populated. Much of it remains in a relatively natural state. The William Head peninsula to the north, on the northeastern side of Pedder Bay, is home to the most scenic federal prison in Canada.⁹⁵ West of the prison is Mary Hill, a large property owned by the military. Naval artillery was stationed there during World War II. The area was later used for infantry maneuvers, but that use was discontinued a decade ago. Mary Hill remains a DND property, although it is no longer actively used by the military. The entire property is officially off-limits to the public, although local residents sometimes hike there.⁹⁶

⁹⁴ Latitude 48°18'N, longitude 123°32'W.

⁹⁵ Inmates are housed in dormitories rather than cellblocks.

⁹⁶ Like the prison next door, Mary Hill is a very scenic property, and home to deer and other wildlife. The Olympic Mountains in Washington State are visible on a clear day. Mary Hill is unfortunately littered with cartridge cases and spent ordnance. The entire property is surrounded by a low fence, which is marked by numerous signs warning of the possibility of live ordnance.

Canadian Forces Ammunition Depot (CFAD) Rocky Point is located to the northwest of Race Rocks, on the southwestern side of Pedder Bay. Bentinck Island, part of CFAD Rocky Point, is closest to Race Rocks. Eemdyk Passage, the channel between Bentinck Island and Vancouver Island, is navigable by only the smallest boats. CFAD Rocky Point, including Bentinck Island, is a secure military facility not open to the public. Some portions of the 200-hectare depot contain old-growth forest.

West of CFAD Rocky Point is the Beecher Bay First Nations Reserve. It is relatively isolated and contains only single-family housing.

Ecology and Climate

Race Rocks is a unique and complex ecosystem that includes undersea life (both inter-tidal and sub-tidal), marine mammals, and birds. Race Rocks' undersea structure consists of "substrates primarily of continuous rock, and a rugged topography which includes cliffs, chasms, benches and surge channels".⁹⁷ Race Rocks' geophysical structure and location at the very southern tip of Vancouver Island result in the daily tides flowing through at up to 8 knots (15 km/h), considered high speed in the marine context. These tides provide nourishment to a rich variety of marine life. Some undersea life exists only on the ocean floor, while other species (e.g. fish) will move through some or all strata of the water column. The aquatic ecosystem is more fully described by BC Parks as follows:

Energy and nutrient inputs attributable to the nearly continuous currents are large, and light penetration in these shallow, clear waters is excellent. These factors result in a high production of algae and invertebrates, while the varied topography promotes ecological diversity. Consequently, the marine communities here are unusually luxuriant and rich. Many species of algae have been recorded, including extensive stands of bull kelp. Invertebrate features include long surviving specimens of mussels, an abundance of

⁹⁷ Race Rocks detailed description from BC Parks:
http://www.env.gov.bc.ca/bcparks/eco_reserve/racerocks_er.html

plumose and proliferating anemones, large numbers of sponges and ascidians, occurrence of soft pink coral, and presence of showy high-current species like the basket star.⁹⁸

The rich aquatic life in turn attracts numerous marine birds and mammals. Several bird species nest on Great Race Rock and some of the larger islets⁹⁹, while others nest in nearby forests, especially at CFAD Rocky Point. Raptors such as bald eagles occasionally visit Race Rocks to prey on the birds there. Northern and California sea lions “haul out” on the larger islets, including Great Race Rock. Harbour seals and elephant seals give birth there. Otters visit frequently, especially to raid bird nests, but generally do not take up residence. Transient orcas pass through the area from time to time, feeding on marine mammals (seals and sea lions). Humpback and Gray whales also pass through occasionally.

The bird and mammal populations change considerably with the seasons. Great Race Rock is a seabird-nesting colony, with Glaucous winged gulls, Pigeon Guillemots and Black Oystercatchers nesting during the summer season. Large numbers of gulls (several species) stay on the island during the winter months. A small population of elephant seals is now using it for breeding and pupping in the early spring, and large numbers of harbour seals birth there in the spring and summer. Sea lions spend the early and late fall in large numbers on the island, departing during the spring and summer months for colder waters farther north.

Unlike nearby Vancouver Island, Race Rocks contains no trees, let alone forest. The surface areas of the islets are completely exposed to the elements. The lack of vegetation (other than grasses) and offshore location results in a microclimate distinct from the temperate rainforest of nearby Vancouver Island. Snow rarely falls at Race Rocks, even when it (relatively

⁹⁸ *Ibid.*

⁹⁹ The smaller islets are too exposed to the elements to sustain nests.

infrequently) falls on the nearby portions of Vancouver Island. Warming temperatures have brought new species (e.g. brown pelicans) in recent years.

Human Inhabitation

While the Race Rocks area was well known to the local First Nations as a rich source of food, it is not believed that any permanent residence was attempted,¹⁰⁰ given the hostile natural environment and difficulties regarding access¹⁰¹. Permanent human inhabitation arrived with the lighthouse in 1860. Initial staffing was composed of two keepers along with their respective families. A stone house attached to the tower was initially the keeper's residence,¹⁰² while a simpler wood-framed residence was provided for the assistant. A half-dozen military personnel were stationed at Race Rocks during the early part of World War II as forward naval observers and radio operators.¹⁰³

The lighthouse staffing was reduced to a single keeper in later years, as the result of increasing automation of the various aids to navigation (lighthouse, fog horns, etc.) and weather instrumentation. By the 1990s, the Coast Guard was beginning to “de-staff” numerous lighthouses on both coasts; human keepers were replaced by fully automated equipment,

¹⁰⁰ The Race Rocks area is known as *XwaYeN* to local First Nations. Burial mounds on Great Race Rock have been dated to approximately 500 A.D:

<http://www.racerocks.com/racerock/firstnations/burialmound/burialmound.htm>

¹⁰¹ The tides and/or weather often preclude access by boat. Numerous marine tragedies have occurred in Race Passage.

¹⁰² The stone house was demolished in 1975, having previously been replaced as a residence by a new wood-frame house located elsewhere on the island. Contrary to current waste management practices, the stone rubble was simply bulldozed into the sea.

<http://www.racerocks.com/racerock/history/rrkeeper/rr66-82/demolition.htm>

¹⁰³ These military personnel were removed once permanent naval facilities were constructed at Mary Hill and Rocky Point. See <http://www.racerocks.com/racerock/history/rrkeeper/39clements/clements.htm> for one account of this time.

supported by occasional visits from maintenance personnel. The timing of complete automation at Race Rocks corresponded with Pearson College taking on management responsibility for the new ecological reserve. When the Coast Guard declared the last lighthouse keepers redundant, the College kept them on as the first “eco-guardians” of the Race Rocks Ecological Reserve. A marine biologist replaced the former lighthouse keepers as eco-guardian once the keepers retired a few years later. At the present time, the permanent human population consists of two eco-guardians (who job-share in different months of the year), augmented from time to time by visiting students and researchers.

Energy / Waste

A diesel generator powered the lighthouse and other coast guard facilities on Great Race Rock for many decades. A multi-month fuel supply is stored there in aboveground tanks.¹⁰⁴ The fuel facilities were upgraded to modern equipment (e.g. double-hulled tanks) in the 1990s. A fuel leak or spill would have disastrous consequences for the sensitive eco-systems at Race Rocks.

Over time, the electrical power requirements have been reduced, and alternate sources of energy have been introduced. An integrated energy system, consisting of 44 solar panels and 96 deep storage batteries, now provides electricity to the eco-guardian’s residence and scientific facilities. A low-impact wind turbine will be added soon. The diesel generator is now used only as backup. The light beacon and other aids to navigation are now completely powered by a separate, smaller-scale solar energy system that belongs to the Coast Guard.

¹⁰⁴ Fuel re-supply can only occur in calm weather. The fuel is brought in by ship, and pumped into the storage tanks located on the opposite side of Great Race Rock from the dock.

A 3 KW experimental tidal generation system was deployed in Race Passage for five years, but this trial has now ended. This turbine was designed to minimize the hazard to marine life.¹⁰⁵

Human waste is now handled through composting, rather than merely being flushed or discarded into the sea, as occurred in earlier years. Fresh water is provided by a desalinator (similar to what is used onboard ships), and is stored in a fiberglass tank.

Pollution occurring almost anywhere in the Strait of Juan de Fuca can reach Race Rocks, given its location and the tidal patterns in the area. Untreated municipal sewage, an oil spill, or discharged ballast from a passing ship could all end up impacting the fragile ecosystem at Race Rocks, even if the origin was some distance away. While a variety of laws would likely apply to such a situation, there is little that could be done to improve the protection for Race Rocks itself. For example, even a substantial increase in the boundaries of the ecological reserve would not change anything with respect to a spill or discharge that occurred in Victoria.¹⁰⁶

¹⁰⁵ <http://www.racerocks.com/racerock/energy/tidalenergy/tidalenergy.htm>

¹⁰⁶ Victoria and many other municipalities on Vancouver Island do not currently treat their sewage, but rather simply discharge it into the ocean. The Province has ordered sewage treatment plants to be constructed throughout the region.

Appendix B: The Historic Lighthouse

The Race Rocks lighthouse was the first to be constructed on the Pacific coast of Canada, in 1860. In the context of Coast Guard “de-staffing” initiatives, concerns have been raised in recent years regarding preservation of lighthouses across Canada, as many of these structures are unique icons. In response to public pressure, Parliament passed the *Heritage Lighthouse Protection Act*¹⁰⁷ (*HLP*). This Act was intended to ensure that heritage lighthouses would be preserved.

Fisheries and Oceans Canada responded to this new legislation by immediately designating almost all lighthouses as “surplus”, thus removing any federal responsibility for maintaining them.¹⁰⁸ DFO also announced that no funds were available to fund restoration of these “surplus” lighthouses, many of which are in deteriorating condition.¹⁰⁹ If and when a lighthouse becomes no longer structurally viable, DFO could replace it with a simple steel pole.¹¹⁰

The *HLP* includes provisions that allow DFO to transfer a surplus lighthouse to a local community group, with the latter taking on the responsibility for upkeep in the context of the heritage designation. However, such a transfer is not legally possible for the Race Rocks lighthouse, as the federal government owns only the lighthouse itself, not the land underneath it. The Province has made clear that it will not authorize any transfer of its land at Race Rocks, or

¹⁰⁷ SC 2008, c 16

¹⁰⁸ DFO’s announcement was directly contrary to the purpose of the legislation.

¹⁰⁹ The crumbling lighthouse at Race Rocks was substantially rehabilitated in 2009, shortly before the *Heritage Lighthouse Protection Act* came into effect in May 2010.

¹¹⁰ A modern “lighthouse” is essentially a standard 20 watt light bulb mounted inside a rotating Fresnel lens. The electrical power required for the light and any related aids to navigation can be readily provided by a small array of solar panels, as is done at Race Rocks. All components are fully automated.

any federal structure on it, given their location in the middle of an ecological reserve. This leaves the future of the lighthouse itself in legal limbo.¹¹¹

¹¹¹ A similar situation exists with respect to many other lighthouses in BC. See news articles and correspondence posted at <http://racerocks.ca/racerock/history/heritage/heritage.htm>

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