

**Eco-cultural restoration as a step towards co-  
management: lessons from the Gulf Islands  
National Park Reserve**

**by**

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## Approval

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## Ethics Statement



The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

- a. human research ethics approval from the Simon Fraser University Office of Research Ethics

or

- b. advance approval of the animal care protocol from the University Animal Care Committee of Simon Fraser University

or has conducted the research

- c. as a co-investigator, collaborator, or research assistant in a research project approved in advance.

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## **Abstract**

This case study examines co-management in national parks and protected areas using theory on institutional arrangements of common pool resources. I apply a co-management framework to evaluate how characteristics of the community, of the resource, of the state agency, and of the institutional arrangement support co-management in a partnership between Parks Canada and Hul'qumi'num communities in the Gulf Islands National Park Reserve (GINPR). Results show that state and community partnerships can foster co-management even without formal structures for sharing power and decision-making. Notably, the nature of the institutional arrangement, which focuses on restoring a clam garden, supports co-management by challenging conservation approaches that restrict human activities in order to protect biodiversity. In the GINPR, informal processes were integral to successful outcomes. These processes directed energy to address local priorities using conservation approaches that are driven by local First Nations values. Nevertheless, co-management is limited without equitable sharing of power in key management functions: planning, policy making, data collection, and analysis.

**Keywords:** Co-management; national parks; eco-cultural restoration; Indigenous people; CPR resources; British Columbia;

*For my grandparents.*

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## List of Acronyms

<b>Term</b>	<b>Initial components of the term</b>
GINPR	Gulf Islands National Park Reserve
HTG	Hul'qumi'num Treaty Group

## Terminology

Aboriginal, Indigenous, First Nations people	<p>The Constitution Act, 1982 defines three categories of 'Aboriginal peoples': Indian, Inuit, and Metis (<i>The Constitution Act</i>, 1982, s35). These three categories contain a great variety of peoples with differing histories, languages, and cultures (Asch, 1984, p.30).</p> <p>While 'Aboriginal' is a term historically used by the Canadian government, many Indigenous people in Canada do not identify with this term (Kessler, 2009). As a way of respecting differing views on the terminology, I use the term Indigenous as the preferred term for people who are Indigenous to the territory, which is now the Canadian nation-state. This practice follows other researchers on the subject that have done so out of the foundational belief that Indigenous people should have the power to identify the preferred terminology used to describe them, and this may vary greatly between peoples and individuals (Wright, 2014).</p> <p>Although the term "First Nations" is widely used in Canada, the Canadian government does not recognize a legal definition of the term. This research paper focuses primarily on British Columbia, where Indigenous populations identify themselves as First Nations.</p>
Aboriginal rights and title	<p>Aboriginal rights and title are a unique set of collective rights to the use of and jurisdiction over ancestral territories (McNeil, 1997). Indigenous rights include rights to the land, rights to subsistence resources and activities, the right to self-determination and self-government, and rights to practice one's own culture and customs including language and religion (Mainville, 2001).</p>
Common-Pool Resource (CPR)	<p>CPRs are ones for which exclusion from the resource is costly and one person's use subtracts from what is available to others (Dietz, Dolsak, Ostrom &amp; Stern, 2002). Because of these characteristics, a balance of power and property rights can prevent the "tragedy of the commons," or overuse that occurs with unrestricted access (Dietz et al., 2002, p.10).</p>

# Chapter 1.

## Introduction

This study explores co-management in national parks and protected areas. Co-management generally refers to power sharing between state agencies and communities focused on managing natural resources (Berkes, Doubleday & Armitage, 2007; Castro & Nielson, 2001; Pinkerton, 1989). Co-management is a form of governance positioned to advance the self-determination of any community or place-based organization, including Indigenous nations relentlessly fighting for sovereignty. As Indigenous people have long argued, reconciling Aboriginal rights and title and the sovereignty of the Crown requires more equitable sharing of land and resources (Alfred, 2009; Egan, 2012, p.403). This calls for a redistribution of power, which is the thrust of co-management (Pinkerton, 2003).

Co-management may be inevitable for Indigenous people in the management of natural resources in Canada, because of constitutional protection of Aboriginal rights and title<sup>1</sup> (Constitution Act, 1982, s. 35). Indigenous people are reclaiming considerable power and influence in the Canadian political sphere (Saul, 2014). Indigenous nations are constantly challenging governments and resource developers in on-going court battles, organizing to advocate for their political rights, and calling for meaningful interpretation of federal commitments to reconciliation (Saul, 2014). The resurgence of Indigenous peoples' political power culminated with the 2014 Supreme Court's decision on *Tsilhqot'in Nation v. British Columbia*. This marked a new direction for Indigenous

<sup>1</sup> Aboriginal rights and title are a unique set of collective rights to the use of and jurisdiction over ancestral territories (McNeil, 1997). Indigenous rights include rights to the land, rights to subsistence resources and activities, the right to self-determination and self-government, and rights to practice one's own culture and customs including language and religion (Mainville, 2001).

sovereignty by recognizing that Aboriginal title extends to all the territory that a First Nation regularly and exclusively used when the Crown asserted sovereignty (Assembly of First Nations, 2014). The Assembly of First Nations has responded that this sent a message that First Nations are becoming full partners in confederation (Assembly of First Nations, 2014). In 2015, prior to his election as Prime Minister, Justin Trudeau spoke to the Assembly of First Nations, emphasizing the Liberal Party's priority to establish a "full partnership with Indigenous Peoples," explaining, "Reconciliation starts with recognizing and respecting Aboriginal title and rights, including treaty rights" (Liberal Party of Canada, 2016; Trudeau, 2015).

The legal recognition of Aboriginal rights and title inherently implies that Indigenous people are co-owners of national parks, particularly of national park reserves, which have ongoing land claims (Corbett, Clifford & Lane, 1998; Martin, 2011). Therefore, attaining co-management in national parks is also fundamentally about the pursuit of environmental justice (Timko & Satterfield, 2008). Most national parks were created on ancestral territories, where Indigenous occupation preceded the Crown by thousands of years (Cronon, 1996). By transferring land and resources into protected areas, the Crown limited access to land, blocked subsistence activities, and suppressed traditions and cultural practices (Martin, 2006). This process was part of the broader systematic subversion of Indigenous societies, culture, and systems of governance (Carlson, 2010; Sullivan, 2006). All the while, the establishment of parks as places of heritage contributed to colonial narratives of "Canadianness" that were devoid of Indigenous people (Osborne, 2006).

Parks Canada's *National Park Reserve* designation signifies a legal recognition of the contested status of parks territories, allowing the federal government to treat and manage national park lands without extinguishing any Aboriginal rights or title to the areas (Canada National Parks Act, S.C. 2000, c. 32). Furthermore, the *Canadian National Parks Act (CNPA)* recognizes that the Minister of the Environment may enter into formal agreements with Indigenous people and authorize the use of national park lands for traditional, spiritual, and ceremonial purposes (Langdon, Prosper & Gagnon, 2010). Section 12 of the *CNPA* states that Parks Canada must provide for public participation at the local, regional, and national levels, including participation by

Aboriginal organizations, bodies established under land claim agreements, and representatives of park communities (Canada National Parks Act, S.C. 2000, s.12).

However, a legal recognition of Aboriginal rights and title does not guarantee the political will to act on those rights (Pinkerton, 1992, p. 331). Despite legal mandates to respect Aboriginal rights and title, a power imbalance continues to characterize Parks Canada's relationship with Indigenous people.<sup>2</sup> Most co-management arrangements in parks and protected areas are inadequate, or "incomplete," because they delegate authority to distant centers of power (Dearden & Langdon, 2009; Langdon et al., 2010; Martin, 2006; Murray & King, 2012). Parks Canada avoids the term "co-management," instead distinguishing its management model as a "collaborative management" approach (Chunick, 2006). This distinction in terminology reflects Parks Canada's legal incapacity to transfer power to Indigenous governments (Langdon et al., 2010). The collaborative model preserves the authority of the Minister of the Environment to make final decisions, and his or her responsibilities to Parliament, which renders Indigenous management bodies advisory in nature (Langdon et al., 2010; Martin, 2006).

Institutional theorists express this power imbalance as the inability of Indigenous people to exercise *collective choice rights* in agreements with Parks Canada, i.e. the right to regulate decision-making (Ostrom, 1992, p.20). Even in National Park Reserves, where the Canadian government acknowledges pending land claims and the implicit status of Indigenous people as potential co-owners, Indigenous park committees are often limited in their ability to affect decisions in areas of vital importance to them. For instance, while the National Park Reserve status recognizes Indigenous peoples' rights to harvest, the *National Parks Act* stipulates that the superintendent has final authority to specify what traditional harvest activities are allowed, prescribe conditions under which

<sup>2</sup> The Gwaii Haanas National Park Reserve is the only example of power sharing in Parks Canada. The Archipelago Management Board (AMB) is widely cited for being a co-management success story, as Haida representatives have management rights over all aspects of park activities (Gardner, 2001). Timko and Satterfield (2008) found that Gwaii Haanas is successful because the Haida had well established relationships with the government, were not displaced by the creation of the park, and had a management framework that members think is successful. However, the arrangement in Gwaii Haanas is unique (Hawkes, 1996). The lack of competing land claims in the region has been cited as a main reason for Gwaii Haanas being an isolated case of formalized co-management in national parks (Gardner, 2009; p. 22).

people may engage in harvest activities, restrict access, and limit how much harvest takes place (Dearden & Langdon, 1993, p. 385).

Without the ability to share power equally in decision-making, the Canadian government risks perpetuating colonial practices that systematically marginalize Indigenous people. Throughout much of Parks Canada's history, the establishment of parks partitioned landscapes into pockets of "pristine" wilderness, marketed to wealthy tourists seeking refuge in nature that is separated from human occupation and use (Clapperton, 2010; Campbell, 2011; Cronon, 1996; Martin, 2006; Neufeld, 2011; Sandlos, 2011). In the process, the government claimed control over Indigenous peoples' lands and resources, and transferred them into economies that Indigenous people did not benefit from (Clapperton, 2010; Cronon, 1996; Martin, 2006; Neufeld, 2011).

Overall, a power imbalance between parks and Indigenous people leads to Indigenous peoples' aversion to colonial policies, distrust of federal agencies, tense relationships, and bitter memories over expropriated lands (Murray & King, 2012; Timko & Satterfield, 2008). If local people do not recognize the legitimacy of the state, this undermines management effectiveness (Pinkerton & John, 2008; Schlager & Ostrom, 1992). Accordingly, despite legal changes and rhetoric on renewed relationships, the state risks perpetuating the colonial practices of land dispossession. This is evident in conservation approaches that limit access and use, impose bureaucratic constraints on traditional activities, and prioritize non-Indigenous interests.

Conservation approaches that limit human access and use of land are contradictory to the 'man-in-nature' worldview of First Nations, who not only claim ownership over the land, but also see themselves as a part of it (Murray & King, 2012). Indigenous people, who have occupied and used "wild" spaces for thousands of years, have never treated humankind as a separate entity from nature. On the contrary, Indigenous people express a deep connection with and cultural dependence on land, which they actively modified through hunting, prescribed burning, cultivation, and harvest (Berkes, 1999; Lepofsky & Lertzman, 2008). Fittingly, Indigenous people often see the creation of parks as a partitioning of resources and landscapes in ways that control their

ways of life and alienate them from their traditional lands (Brockington & Igoe, 2006; Dearden & Langdon, 2009).

Even in cases where parks agencies grant harvest rights, a patriarchal approach deters local people from participating in management. For example, Métis and Inuit people in Churchill expressed resentment towards Wapusk National Park for imposing a complicated permitting process for hunters and defining what constitutes a traditional hunter (Martin, 2006, p. 144). The inability of Métis and Inuit people to influence the permitting process itself, led them to question the legitimacy of Parks Canada (Martin, 2006). It also caused feelings of dispossession amongst people who were born in Churchill and had hunted all of their lives, but did not fit into bureaucratic definitions imposed by the government (Martin, 2006, p. 144).

Without clearly defined parameters for prioritizing the concerns of Indigenous people, no mechanisms exist to prevent the federal government from favoring non-Indigenous interests (Tipa & Welch, 2006). Indigenous people engage in co-management agreements for the pursuit of cultural revival; the recognition of the right to access, use, develop, and protect resources; self-determination; and the right to use traditional knowledge (Tipa & Welch, 2006, p. 387). Without *collective choice rights* to articulate such interests, co-management arrangements in national parks risk prioritizing outcomes incompatible with those values. This was the case when Yukon First Nations negotiated the establishment of Ivvavik National Park in the Yukon Territories, during a time of documented distrust of government conservation programs in many northern communities (Martin, 2011). The federal government refused to negotiate fee simple ownership or any proposals that blocked industrial activity along the Arctic coast (Martin, 2011). The wilderness park became a compromise; the Yukon First Nations had to accept conservation as a means to secure limited rights to land, while the government retained power to delegate zoning and industrial permitting (Martin, 2011).

Despite the challenges described above, cooperative management boards for national parks can still add value (Murray & King, 2012; Timko & Satterfield, 2008). For example, according to First Nations representatives, Pacific Rim and Kluane national park reserves—parks with varying decision-making authority—achieved effective and



equitable participation in governance (Timko & Satterfield, 2008, p. 250). In Kluane National Park Reserve, Indigenous co-managers were satisfied with a range of management outcomes, including livelihood opportunities, and programs to increase cultural ties with land (Timko & Satterfield, 2008, p. 250). Indigenous co-managers also felt that overall participation in governance was successful, despite being unsatisfied with efforts to resolve land tenure and ownership, and despite being absent from key management decisions (Timko & Satterfield, 2008, p. 243). The Pacific Rim National Park Reserve scored well on participation in governance, particularly because respondents cited negotiations with the park were “land-claim like” and the park’s approach to operate in a “post-treaty environment” (Timko & Satterfield, 2008, p. 248).

Similarly, the Pacific Rim National Park Reserve improved relations with the Tla-o-qui-aht First Nation, despite having an adversarial history over expropriated land, through a wide interpretation of its mandate to involve First Nations in management (Murray & King, 2012, p.389). For example, the park reserve developed timber access agreements, held unprecedented levels of consultations in establishing its management plan, and supported the development of the Tla-o-qui-aht Tribal Park (Murray & King, 2012, p. 389). The Tla-o-qui-aht First Nation considered the Tribal Park as an important mechanism for asserting their sovereignty and self-determination (Murray & King, 2012, p. 389).

With evidence suggesting that co-management can produce benefits even without an equitable allocation of decision-making power, it is worthwhile to study factors that contribute to positive outcomes in order to understand how co-management develops. Studying the process of co-management contributes to understanding where opportunities exist for developing relationships, establishing management rules that are locally appropriate and accepted, and ensuring an equitable flow of benefits (Agrawal, 2002; Schager & Ostrom, 1992). Studying the process of co-management also sheds light on what happens beyond formal management arrangements. This is important in cases where parties cooperate and define *de facto* rules amongst themselves, outside of formalized policies, which influence management outcomes (Schlager & Ostrom, 1992, p.19). With this rationale, this study explores how co-management can develop and function in cases where formal arrangements form “incomplete” co-management. The

following section describes the focus of the study in more detail, along with the theoretical contribution of the research.

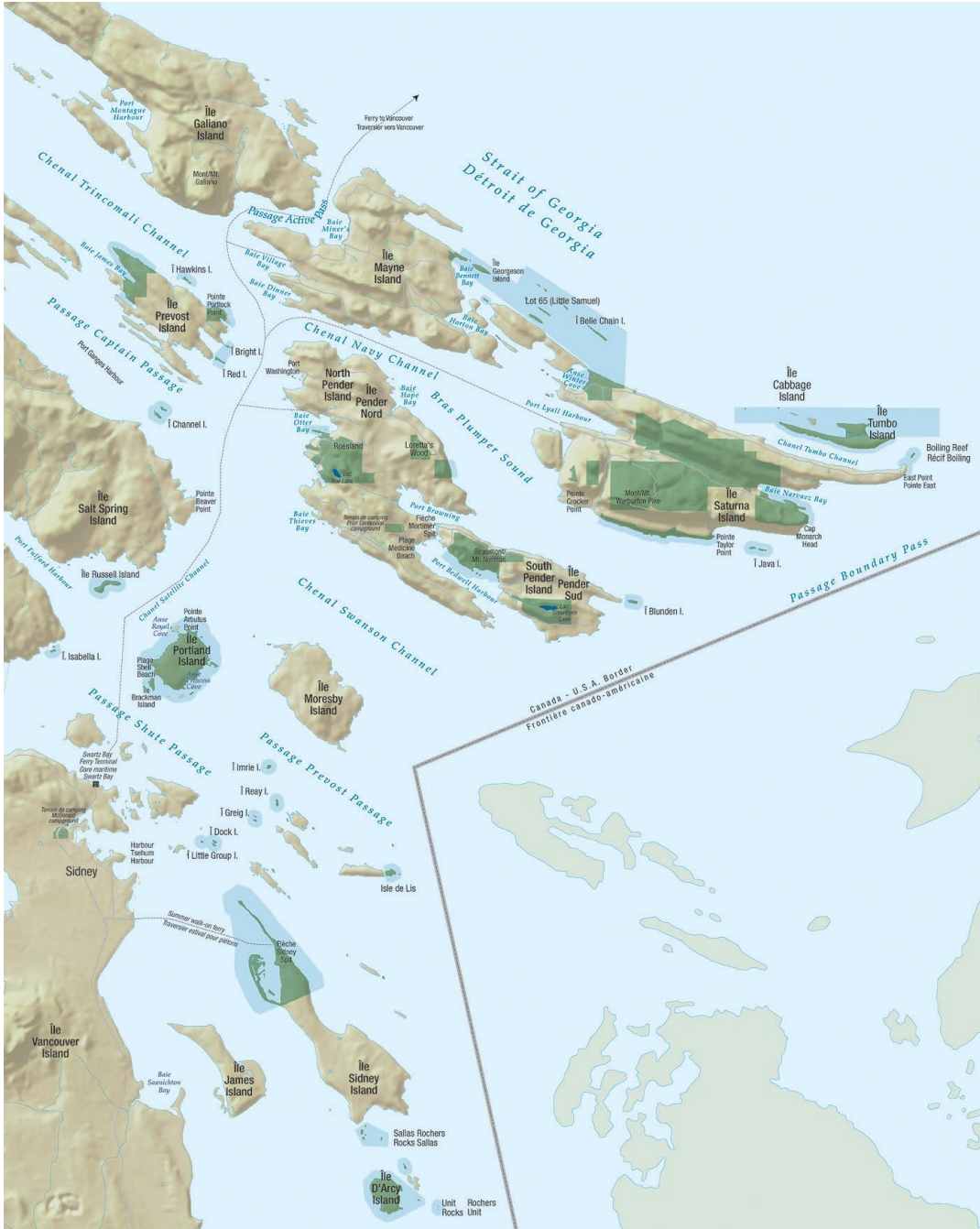
## 1.1. Case-study focus

This is a case study of co-management in the Gulf Islands National Park Reserve (GINPR). I focus on the partnership between Parks Canada and six Coast Salish First Nations that have come together under an umbrella co-management committee: The Hul'qumi'num – Gulf Islands National Park Reserve (GINPR) Committee, representing the Stz'uminus First Nation, Cowichan Tribes, Halalt First Nation, Lake Cowichan First Nation, Lyackson First Nation, and Penelakut Tribe.<sup>3</sup>

The GINPR is comprised of 34 sq. km. of land and intertidal area spread out over 15 islands and numerous small islets, and approximately 26 sq. km. of marine areas (GINPR, 2013b, p.3). Map 1 shows the area of the GINPR. The park is located in the southern Gulf Islands of British Columbia in the Strait of Georgia, otherwise known as the Salish Sea (GINPR, 2013b). The park reserve was established on the homelands of *Hwulmuhw*, or "*Hanqam'i'nam*" or "*the people*," also often referred to as Coast Salish peoples (Morales, 2006). Coast Salish people have occupied their traditional lands from time immemorial (HTG, 2005a, p.11). The Coast Salish peoples' presence is evident in their place names blanketing the territories, their extensive knowledge of harvest sites, trade routes and sacred areas, in their oral histories, and in their knowledge of family-owned hunting territories and fishing grounds (HTG, 2005a, p.12).

<sup>3</sup> Saanich and all other Coast Salish peoples also claim traditional territories in the boundaries of the GINPR and work cooperatively with Parks Canada. The research reported here focuses on one partnership to control for scope and simplify the analysis (each nation has a separate arrangement with Parks Canada). Parks Canada also has a partnership with the Wasanec First Nations specific to the clam garden restoration work.

**Map 1: The Gulf Islands National Park Reserve**



The Gulf Islands National Park Reserve (GINPR) is located in the southern Gulf Islands of British Columbia in the Strait of Georgia, otherwise known as the Salish Sea by First Nations people. Covering an area of 36 km<sup>2</sup>, the park includes 15 islands, numerous small islets, reef and intertidal areas including Saturna, North Pender, South Pender, Mayne, Prevest, Portland and Sidney Islands, and a small portion of Vancouver Island (GINPR, 2013b).

### ***Co-management claim***

The communities represented by the Hul'qumi-num-GINPR Committee are also united in the Hul'qumi'num Treaty Group (HTG), in ongoing negotiations in the British Columbia treaty process (Morales, 2006). For decades, HTG has been vigorously defending their territories and resisting encroachment on their livelihoods and cultural continuity (Morales, 2006). In the process of defending their ancestral lands and waters, Hul'qumi'num communities have clearly affirmed their co-management claim with respect to the GINPR. Their claim is backed by the absence of treaties, by the absence of a conquest or surrender of lands, and by archaeological evidence dating back more than 9,000 years showing Hul'qumi'num peoples' continuous occupancy and use of their traditional lands and resources (HTG, 2007; Morales, 2006).

HTG's co-management claim is also rooted in the dispossession of their traditional territories upon the establishment of the park reserve in 2003. The GINPR was established ten years into HTG's treaty negotiations, without any meaningful consultation or engagement with HTG (Egan, 2008, p. 33). HTG's Statement of Intent, which clearly outlined the park reserve within the Hul'qumi'num traditional territory, had been filed with government agency years earlier (Egan, 2008, pp. 21-25). The thrust of the park reserve's creation is described in Egan's (2008) account of time spent with Hul'qumi'num community members upon learning of the park reserve's creation. "There was outrage and dismay," he writes. "At the stroke of a pen ... these lands were effectively removed from the treaty negotiations table: that is, the possibility of the Hul'qumi'num regaining full control of these lands, to be used for their own purposes, was effectively swept away" (Egan, 2008, p.32).

Despite prior conflict, Hul'qumi'num people continue to engage with Parks Canada. They call for substantive government-to-government relationships (Hul'qumi'nim-GINPR Committee, 2005, p.25). HTG stresses the significance of co-management in the context of limited resources left for negotiations (Morales, 2006). Access to places Hul'qumi'num people have long relied on for economic and cultural survival has been seriously eroded because of privatization and commercialization (Egan, 2008, p. 26). Today, as HTG continues to negotiate a compensation for their lands and waters, only 8% of the Hul'qumi'num traditional territory is on the table for

negotiation, since the government is not willing to expropriate lands from private citizens for the settlement of treaties (Morales, 2006).

As the treaty negotiations press forward, Parks Canada continues to work closely with the Hul'qumi'num – Gulf Islands National Park Reserve (GINPR) Committee. At the forefront of their partnership is an eco-cultural restoration project; the reconstruction of a clam garden within the park reserve's boundaries. This study focuses on the clam garden restoration project in the broader context of joint management in the park reserve.

### ***Clam garden restoration project***

Clam gardens are human-made terraces constructed along coastal intertidal areas by First Nations to enhance clam production in the Pacific Northwest (Haggan et al., 2006). Hundreds of clam gardens mark the coastlines from Washington State to Alaska, as prominent signatures on the landscape left by the First Nations societies that relied on them (Williams, 2006, p.53). Their construction preceded modern shellfish mariculture by hundreds, and possibly thousands of years (Williams, 2006, p.12).

Images 1 and 2 show the structure of a clam garden; a rock boulder wall built near the tide line (Haggan et al., 2006; Williams, 2006, p.16). The construction of the wall resulted in elevated terraces on the landward side of the wall (Haggan et al., 2006). These clam beds created ideal habitat conditions for species like butter, cockles littleneck, and horse clams; staples in coastal First Nations diets (Williams, 2006).

**Image 1: Satellite photo of clam garden in British Columbia**



Google Earth image of clam garden on Quadra Island, British Columbia (Lepofsky et al., 2015, p. 245)

**Image 2: Aerial photo of clam garden showing scale of landscape modification**



Photo of clam gardens line the Pacific Northwest coastline: Mary Morris/John Harper (n.d.)

Clam gardens were integral for First Nations societies, as they supported cultural, social, and ceremonial practices (Williams, 2006). The widespread occurrence of clam gardens, their embeddedness in songs, stories and practices, and their association with prominent archaeological features such as shell middens underscores their importance (Lepofsky et al., 2015). Clam gardens also underpinned economic security; historic records show some clam beds fed up to 20,000 people (Williams, 2006, p. 87). They were traditionally part of larger systems of governance and tenure (Haggan et al., 2006).

Despite their significance to the Pacific Northwest Coast First Nations, clam gardens garnered scientific attention only recently (Caldwell et al., 2012). The onset of recent academic focus on clam gardens furthered empirical evidence of the sophistication of First Nations societies (Caldwell et al., 2012; Lepofsky et al., 2015). For example, empirical evidence that clam beds significantly expand shellfish habitat and productivity demonstrated that Coastal First Nations actively managed their landscapes (Caldwell et al., 2012; Groesbeck, Rowell, Lepofsky & Salomon, 2014). Aerial surveys and photographs helped visualize the extent of landscape-level modification, highlighting the breadth of labor and planning involved (Caldwell et al., 2012; See Image 1). In some cases, double terraces suggested that villages created separate beds to encourage the conditions for different kinds of clams, demonstrating First Nations' extensive knowledge of different species (Williams, 2006, pp. 60-61). Findings also suggest that clam beaches helped buffer for volatility in other key foods, such as salmon, by providing consistent yields even in times of shortages (Williams, 2006, p.66).

These findings are toppling the wilderness myth attributed to remote landscapes and the perception that First Nations of the Pacific Northwest Coast were primitive hunter-gatherers (Lepofsky et al., 2015). Furthermore, research on clam gardens supports claims about the inextricable links between biological diversity and cultural diversity (Cuerrier, Turner, Gomes, Garibaldi, & Downing, 2015). This provides further evidence for First Nations, who have long argued that harvesting beach resources supports healthy ecological conditions (Cuerrier et al., 2015; Fediuk & HTG, 2011). Likewise, this discourse strengthens communities' call for improved access to and use of

traditional territories to support community social, cultural and economic well-being (Egan, 2008; HTG, 2005).

The Gulf Islands National Park Reserve (GINPR) proposed to restore a clam garden as an eco-cultural restoration project with the same underlying principle — that social and cultural well-being and ecological integrity are interdependent (GINPR, 2013a). The idea to restore a clam garden arose from conversations with the Clam Garden Network, a coalition of First Nations, academics, researchers, and resource managers from coastal British Columbia, Washington State and Alaska (Clam Garden Network, 2015). It also followed the results of several community studies, which found that Hul'qumi'num communities have limited access to traditional food, with serious implications for health, food security, and poverty (HTG, 2005a; Fediuk & Thom, 2003). Acting on these concerns, the park authority proposed to restore a clam garden within its jurisdiction (GINPR, 2013a).

Eco-cultural restoration challenges the colonial ideals of wilderness that pervaded parks policies for much of their history (Cronon, 1996; Martin, 2011). It adopts the underlying premise that cultural knowledge and wisdom, if applied in locally relevant contexts and scales, can sustain and promote biodiversity (Cuerrier et al., 2015, p. 443; Augustine & Dearden, 2014). Likewise, it acknowledges that diverse species and habitats are integral to all aspects of Indigenous and local societies (Maffi & Woodley, 2010). The project was proposed with the aim of the project testing whether Indigenous marine management practices could improve the ecological conditions of shellfish in the GINPR, while also responding to First Nations' desires for food security and the revitalization of cultural practices associated with shellfish (GINPR, 2013a).

The clam garden restoration project exists in a contemporary context; the GINPR does not aim to re-establish the clam gardens as they existed historically (Respondent A, personal communications, December 8, 2014). Nevertheless, Hul'qumi'num communities assert their place as caretakers of their traditional territories and express a strong desire to reclaim control over shellfish resources, strengthen traditional food sources, and foster stronger connections to traditional lands and waters (HTG, 2005a). To this end, the restoration project is applying local conservation values and practices to



support ecological and social benefits (Augustine & Dearden, 2014). The Hul'qumi'num–GINPR Committee established a group of Hul'qumi'num knowledge holders to guide the clam garden restoration (Respondent B, Personal communications, April 7, 2016).

## **1.2. Theoretical contribution**

I evaluate co-management as a form of governance positioned to advance the self-determination of First Nations, in the context of natural resource management on contested territories. I suggest characteristics that contribute to a partnership with meaningful recognition of Aboriginal rights and title. This is an important area of study, considering the relationships between Indigenous nations and the Canadian government are still recovering from a colonial past (Saul, 2014).

The analysis is grounded in literature on common pool resources (CPRs), which explores how human motivations, rules governing access to resources, social organizations, and the resource systems themselves interact to yield sustainable outcomes (Ostrom, 2002). I explore how co-management can function, by analyzing the characteristics of the institutional arrangement, state agency, resource users and resources themselves (Agrawal, 2002). Applying CPR theory to national park expands the focus of co-management beyond conservation outcomes by analyzing how co-management can allocate benefits equitably, foster equality in decision-making between local users and the state, and persist in the long-term (Agrawal, 2002; Pinkerton, 1989; Singleton, 1998).

Accepting the Hul'qumi'num communities' co-management claim challenges the ownership status of the GINPR as being the private property of the state. Rather, the park reserve can be understood as a common pool resource (CPR) shared by First Nations governments and state agencies. CPRs are ones for which exclusion from the resource is costly and one person's use subtracts from what is available to others (Dietz, Dols, Ostrom, & Stern, 2002, pp.1-11). Throughout much of the history of parks and protected areas, national parks were, at least theoretically, excludable, because the state could restrict access and charge people admission (Ostrom, 1992, p.20). However, with the constitutional protection of Aboriginal rights and title, government can no longer

exclude Indigenous people completely from accessing and managing the park. As lands with contested ownership, national park reserves fall under simultaneous, non-exclusive ownership by both Indigenous governments and the Crown (Canada National Parks Act, 2000). Even where Parks Canada establishes zoning restrictions within the park, it is not always easy to enforce access restrictions, especially if the state does not have the resources to do this (Pinkerton & Silver, 2011). This is especially true in the GINPR, because the park consists of many scattered islands (See Map 1). At the same time, visitor access can subtract from First Nations' and other visitors' use, for example, by degrading the natural environment and by crowding.

Because of these characteristics, power-balance and property rights are needed for preventing CPR dilemmas, such as the "tragedy of the commons," or overuse that occurs with unrestricted access (Dietz et al., 2002, pp.1-11). Evaluating co-management completeness calls for studying the structure of co-management as an institutional arrangement, i.e. determining how individuals establish rules to organize activities, make decisions and produce outcomes (Ostrom, 1992). Evaluating completeness helps establish the degree to which decision-making power is shared between parties (Pinkerton, 2003). This contributes to understanding how partnerships between communities and state agencies can prevent resource collapse and foster incentives for participation in local management (Schlager & Ostrom, 1992).

I refer to "completeness," as the bundle of rights held by both parties in a co-management partnership (Ostrom, 1986; Pinkerton, 2003). I focus on the potential of the clam garden restoration project to support co-management despite an overarching power imbalance between Parks Canada and First Nations. I use a theoretical framework that stems from literature on management of common pool resources (CPRs). The framework helps identify elements in the partnership between the GINPR and Hul'qumi'num communities that both help and limit complete co-management. A complete arrangement is one where parties have strong incentives to participate in management, where parties acknowledge the legitimacy of one another, and where the institutional arrangement resolves common pool resource dilemmas (Pinkerton, 2003; Schlager & Ostrom, 1992). I also explore how interpersonal aspects of partnership contribute to complete co-management. I focus on the ways in which partners share

knowledge and information, learn, and influence management activities iteratively (Pinkerton, 2003; Berkes, 2009). This helps understand how parties establish working relationships and trust, which are crucial to complete co-management (Natcher, Davis & Hickey, 2005).

I evaluate “completeness” in the context of the clam garden restoration project and in the broader planning context of the GINPR. Exploring co-management in the context of eco-cultural restoration is worthy of study because the fundamental assumptions of eco-cultural restoration place humans at the centre of healthy ecosystems, not separately from them (Senos, Lake, Turner & Martinez, 2006). In this management approach, conservation must prioritize both natural and cultural values to be successful, building common ground for parks managers and local people (Augustine & Dearden, 2014). While recognizing that co-management may be limited without equitable allocation of decision-making power, it is useful to examine whether eco-cultural restoration can enable foundational steps for co-management. For example, it is worth examining whether opportunities for parks managers and Indigenous people to work together can facilitate improved working relationships and trust (Natcher et al., 2005).

Eco-cultural restoration is also worthy of study because this conservation approach has the potential to reconcile the mandate to protect biodiversity and the desires of Indigenous people to maintain stronger connections with their traditional territories. In recognizing the connection between social and ecological systems, eco-cultural restoration challenges conservation paradigms that restrict human activities in order to protect biodiversity (Senos et al., 2006). Proponents of eco-cultural restoration recognize that certain landscapes in parks and protected areas were shaped by generations of Indigenous people through sustenance and cultural traditions (Anderson & Barbour, 2003). Eco-cultural restoration proposes reinstating certain Indigenous land management practices as approximations of historical disturbances, as a means of restoring and maintaining park landscapes (Anderson & Barbour, 2003, p. 269).

To that end, I also consider the interpersonal dynamics of co-management. (Carlsson & Berkes, 2004; Pinkerton, 1994). I focus on the interactions between

communities and ecosystems in a continuous learning process (Carlsson & Berkes, 2004). Analyzing how partners build relationships, learn, and influence management activities iteratively, contributes to understanding factors that facilitate long-lasting relationships that can withstand change and uncertainty, which are inherent in natural resource management (Carlsson & Berkes, 2004; Pinkerton, 1992). Analyzing co-management by looking at what mechanisms exist to foster learning, social interactions and trust helps illustrate factors that develop and sustain co-management, in addition to the formalized structure of the institutional arrangement (Carlsson & Berkes, 2005; Pinkerton, 1993).

### **1.2.1. Research questions**

The following research questions assess completeness of co-management in the GINPR. Complete co-management distributes power equitably (Pinkerton, 2003). Additionally, a complete co-management arrangement is one where parties have strong incentives to participate in management, where parties acknowledge the legitimacy of one another, and where the institutional arrangement resolves common pool resource dilemmas (Pinkerton, 2003; Schlager & Ostrom, 1992). I also focus on the ways in which partners share knowledge and information, learn, and influence management activities iteratively (Pinkerton, 2003; Berkes, 2009). This analysis focuses on the clam garden restoration in the GINPR, grounded in the assumption that community well-being and healthy ecosystems are interdependent.

- (1) What factors contribute to complete co-management in the partnership between Parks Canada and the Hul'qumi'num-GINPR Committee?
- (2) What factors limit complete co-management in the partnership between Parks Canada and the Hul'qumi'num-GINPR Committee?

In considering factors that both limit and enable co-management in unison:

- (3) What propositions can the GINPR case study suggest for other co-management arrangements in national parks?

The first two research questions aim to identify factors that contribute to and limit completeness, respectively. To answer questions (1) and (2), I use a co-management framework that helps identify factors based on characteristics of the historical context, of the community, of the resource, of the state agency and of the institutional arrangement (Pinkerton & John, 2008; Rocha & Pinkerton, 2014). I describe the framework at length in Chapter 2. The third research question elicits propositions on factors that limit and enable co-management more broadly. Co-management propositions take a systemic approach, considering how the factors identified by the first two questions interact with one another. This third question helps to draw generalizable attributes of state-community partnerships that contribute to success and that can be tested in future research.

### **1.2.2. Research objectives**

This study aims to identify conditions that contribute to complete co-management in order to support government agencies' ongoing efforts to collaborate with Indigenous people. Governments' partnerships with Indigenous nations are happening in the context of natural resource management on contested lands. The research objectives are as follows:

- (4) Apply CPR theory to the context of natural resource management in a national park setting to understand for effective co-management.
- (5) Generate hypotheses about key dynamics and conditions for complete co-management that can be tested in future research.

## **Chapter 2. Analytical Framework**

I use a co-management framework informed by CPR literature to help identify cases where there is participation or partnership but not actual sharing of power (Pinkerton, 2003; Plummer & FitzGibbon, 2004). The analytical framework helps describe the process of co-management and the effectiveness of the arrangement, using propositions on factors that contribute to successful outcomes. Propositions act as hypotheses, based on previous empirical research, on conditions that support and limit “completeness” of co-management. Completeness refers to the level of participation and power sharing present in co-management. I consider the bundle of rights held by both parties in a co-management partnership (Ostrom, 1986; Pinkerton, 2003). A complete arrangement is one where the allocation of rights leads to strong incentives for participation in management and the perceived legitimacy amongst partners, and resolves common pool resource dilemmas (Pinkerton, 2003; Schlager & Ostrom, 1992).

Co-management frameworks are largely used to advance comparison of empirical case studies, which have wide-ranging sampling, analytical, and contextual scenarios (Agrawal, 2002; Plummer & Armitage, 2007). This is relevant for national parks and for the context of this study for several reasons. First, national parks operate amidst unique local ecological and social conditions (Augustine & Dearden, 2014). Second, the relationships between parks and local people vary significantly across jurisdictions (Canadian Parks Council, 2008). Third, First Nations in British Columbia vary greatly with respect to cultural practices, historical occupation, current socioeconomic characteristics, and their own planning priorities (Union of British Columbia Indian Chiefs, 2005). A framework establishes over-arching components that are inherent to all co-management arrangements, which makes national parks comparable despite their vast differences.

In efforts of advancing comparison and finding generalizable attributes of state-community partnerships that contribute to complete co-management, researchers focus on structural characteristics of the community, of the natural resource, of the government agency, and of the institutional arrangement (Agrawal, 2002; Ballard & Platteau, 1996; Ostrom, 1990; Wade, 1994). Agrawal (2002) synthesized hundreds of case studies to create a comprehensive co-management framework that categorizes propositions of factors contributing to successful outcomes. Pinkerton's work built further on Agrawal's (2002) framework to assess 'completeness' (Pinkerton, 2003; Pinkerton & John, 2008; Rocha & Pinkerton, 2014). Similar to other CPR scholars, Pinkerton's co-management framework evaluates the structural characteristics the community, of the natural resource, of the government agency, and of the institutional arrangement (Rocha & Pinkerton, 2014).

Pinkerton's co-management framework also draws on propositions based on years of empirical studies (Pinkerton, 1989; Pinkerton, 1992; Pinkerton & Weinstein, 1995; Pinkerton & John, 2008; Rocha & Pinkerton, 2015). Of relevance to this study are propositions on power allocation in key management functions, on factors contributing to local legitimacy, and on mechanisms that foster mutual problem solving (Pinkerton, 1989; Pinkerton, 1992; Pinkerton & Weinstein, 1995; Pinkerton & John, 2008; Rocha & Pinkerton, 2015). This analysis helps define "conditions under which complete or even adequate management can develop and survive" (Pinkerton, 2003, p. 62). For the purposes of this study, I call this framework the Pinkerton Co-Management Framework, hereafter referred to as "the framework."

Table 1 provides an overview of the framework, divided into the following sections: the historical and political context for the co-management arrangement, the nature of the community, the nature of the resource, the nature of the state agency, and the nature of the institutional arrangement. Table 1 includes the questions that guided my analysis for each section of the framework. I derived these questions from empirical studies on co-management, which elicited propositions on what contributes to successful outcomes. For instance, Pinkerton and John (2008) found that historical context influences the degree to which parties recognize the legitimacy of one another, a factor found highly influential in collaborative arrangements. Therefore, in the section that

analyzes the political context of the co-management arrangement, I ask, “What long-term historical developments caused the co-management claim to arise, and what present political situations are affecting it?”

These questions provide starting points for the analysis. Each section of the framework evaluates these overarching questions by considering how this case study is either similar to or different from previous findings, and then drawing conclusions based on contextual factors. This is consistent with methodology used by scholars on CPR management (Agrawal, 2002; Rocha & Pinkerton, 2015).

**Table 1: Index of the co-management framework and analytical questions**

<b>Analysis Section</b>	<b>Section and overarching questions guiding the analysis</b>	<b>Literature used to inform the co-management analysis</b>
<b>Section 4.1.</b>	<b>Political context</b>	
Section 4.1.1. Section 4.1.2.	What long-term historical developments caused the co-management claim to arise, and what present political situations are affecting it?	Murray & King (2012) Natcher et al. (2005) Schlager & Ostrom (1992).
Section 4.1.3.	Organization: parties/stakeholders involved in co-management	Pinkerton & Weinstein (1995)
Section 4.1.3	What is the focus of the co-management arrangement?	Pinkerton & Weinstein (1995)
<b>Section 4.2.</b>	<b>Nature of the Community</b>	
Section 4.2.1.	What is the main vision of the community regarding what C-M should accomplish?	Pinkerton & Weinstein (1995)
Section 4.2.2.	What characteristics of the community lend themselves well to co-management? Geographic spread Social cohesion	Agrawal (2002) Ostrom et al. (1994) Baland & Platteau (1996) Pinkerton (1989)



**Table 1: Index of the co-management framework and analytical questions (continued)**

<b>Analysis Section</b>	<b>Section and overarching questions guiding the analysis</b>	<b>Literature used to inform the co-management analysis</b>
<b>Section 4.3.</b>	<b>Nature of the Resource</b>	
Section 4.3.1.	What characteristics of the resource foster incentives for management? Scarcity and value, Saliency, Mobility (Agrawal, 2002; Pinkerton & John, 2008)	Pinkerton & John (2008)
Section 4.3.2.	What characteristics of the resource support local management by fostering incentives for rule enforcement? Boundary clarity, Resource size, Visibility, Spoilability	Agrawal (2002) Pinkerton & John (2008)
Section 4.3.3.	What characteristics of clam gardens support local management?	Pinkerton & John (2008) Williams (2006)
<b>Section 4.4.</b>	<b>Nature of the State Agency</b>	
Section 4.4.1.	Level of governance (municipal, regional district/county, provincial/state, federal) Scale and size of bureaucracy and mandate Is the agency attuned to local management needs?	Pinkerton (1989)  Pinkerton & Weinstein (1995)
Section 4.4.2.	Is there dedicated leadership to furthering the co-management arrangement? (Pinkerton, 1989)	Pinkerton (1989)
Section 4.4.3.	Organizational learning: What issue networks exist in the co-management arrangement? What opportunities exist for informal, creative problem solving?	Pinkerton (1989) Pinkerton (1992) Pinkerton (1993) Hecllo (1978)

**Table 1: Index of the co-management framework and analytical questions (continued)**

Analysis Section	Section and overarching questions guiding the analysis	Literature used to inform the co-management analysis
<b>Section 4.5.</b>	<b>Nature of the Institutional Arrangement</b>	
Section 4.5.1.	<p>Structure of rights, duties and power:</p> <p>How are operational, collective choice and constitutional right distributed?</p> <p>What policies stipulate engagement and sharing decision-making power? What is the policy context for the arrangement?</p> <p>Is the power delegated (vertical) or is power derived from other sources and thus more horizontal (treaty, <i>constitutional rights</i>, property ownership, etc.), which recognize the right to self-government?</p>	<p>Ostrom (1992), Pinkerton (2003)</p> <p>Pinkerton (2003)</p> <p>Pinkerton (2003)</p>
Section 4.5.2.	<p>Management activities:</p> <p>What management rights does the community hold? Are the rights <i>de jure</i> (formal, legal) or <i>de facto</i> (informal)?</p> <p>What is the scope of the specific co-management activities? What particular management activities does the community carry out?</p> <p>How do project activities foster learning, social interactions, trust?</p>	<p>Ostrom (1992)</p> <p>Pinkerton &amp; Weinstein (1995) Pinkerton (2003) Berkes (1994)</p> <p>Carlsson &amp; Berkes (2005) Berkes (2009) Pinkerton (1989) Pinkerton (1993) Pinkerton (1994) Natcher et al. (2005)</p>

## **2.1. Historical and Political Context**

Describing the historical and political context is consistent with findings that past relationships between Indigenous co-managers and the government often influence co-management outcomes (Murray & King, 2012; Natcher et al., 2005). For instance, a historical context influences the degree to which parties recognize the legitimacy of one another, a factor found highly influential in collaborative arrangements (Schlager & Ostrom, 1992). I include the historical developments specific to land-claim agreements, the establishment of the Gulf Islands National Park Reserve (GINPR), and the evolution of the cooperative management committee in the GINPR to frame the historical context in this study.

## **2.2. Nature of the Community**

Presenting the community's vision for what co-management should accomplish sets the stage for understanding how the Gulf Islands National Park Reserve (GINPR) is responding to local needs. Additionally, I analyze community characteristics that scholars found to be conducive to complete co-management outcomes: geographic spread and social cohesion (Agrawal, 2002; Baland & Platteau, 1996; Ostrom, 1992; Wade, 1994; Rocha & Pinkerton, 2014). Since my research focuses on clams, I include research findings on successful conditions for co-management of shellfish. The propositions relevant to this case study are categorized as follows: community's vision for what co-management should accomplish, social cohesion, and geographic spread.

### **2.2.1. Vision for co-management**

Every community has unique reasons for engaging in a co-management arrangement (Pinkerton & Weinstein, 1995; Corbett, Lane and Clifford, 1998). I consider the community's vision for co-management, for managing shellfish, and for managing cultural heritage on Hul'qumi'num traditional territories. My analysis is based on the premise that a complete co-management arrangement is responsive to community needs (Pinkerton, 2003).

### **2.2.2. Social cohesion**

Scholars identify several group characteristics that denote cohesion. Baland and Platteau (1996) argue that successful past experiences, trust, and shared norms are significant for successful management. Pinkerton's (1989) synthesis of co-management of local fisheries finds that in many of the case studies examined, a cohesive social system based on kinship and/or ethnicity was a significant in aspect of successful outcomes (Pinkerton, 1989, p. 28).

Social cohesion is relevant for the clam garden restoration project because shared knowledge, values, and common understandings of traditional clam digging practices are important for informing the ecological and cultural elements of the restoration project (Lepofsky et al., 2015). For example, traditional knowledge regarding what species to harvest, where to dig on beaches, and what species to transplant, can inform activities to enhance ecological productivity (Lepofsky et al., 2015; Groesbeck et al., 2014). Likewise, knowledge of intergenerational teachings, language, and cultural practices associated with clam gardens are crucial for the cultural revitalization aspect of the project (Berkes & Turner, 2006). When community members share a cultural connection to the resource, they have more incentives to participate in management, which is conducive to complete co-management (Pinkerton & John, 2008).

### **2.2.3. Geographic spread**

When community members live close to the resource, it is easier to cooperate and enforce rules on access and use (Baland & Platteau, 1996, p. 343-345; Ostrom et al., 1994). Wade (1988) and Baland and Platteau (1996) argue that overlap between where communities live and access resources is a benefit. Understanding where communities are located in relation to the GINPR can denote, for example, barriers to accessing beaches and participating in clam digging, which can have a negative effect on co-management.

## 2.3. Nature of the Resource

I describe both clams and clam gardens as constituting the “resource.” The characteristics analyzed include boundary clarity, visibility, resource size, storability, cultural salience, scarcity, value, and stationarity. I consider how these characteristics influence the institutional aspect of co-management, focusing on incentives for local management and rule enforcement. This part of the analysis uses propositions from CPR literature, namely Pinkerton’s (1989) summary of complete co-management case studies in fisheries, Agrawal’s (2002) extensive summary of hundreds of case studies on local management, and Pinkerton and John’s (2008) study of clam management in British Columbia.

### 2.3.1. Characteristics that foster incentives for management

The following propositions describe characteristics that foster incentives for local management: scarcity and value, cultural salience, and mobility.

**Scarcity and value:** perceived scarcity supports co-management because it leads to incentives for participating management if the resource is valuable to the community (Wade 1986; Ostrom, 2009; Poteete, Janssen, & Ostrom, 2010; Oldekop, et al., 2012).

**Salience:** if the resource has high cultural salience, people have more incentives to manage it, which is highly favourable to local management (Pinkerton & John, 2008). Cultural salience is significant for the restoration project in particular, because clam gardens make up an important element of ancestral cultural landscapes, to which communities have strong associations of culture and identity (Lepofsky et al., 2015).

**Stationarity:** it is more difficult to manage species that have extensive migrations or movements (Agrawal, 2002). Therefore, stationarity supports favourable conditions for local management.

### 2.3.2. Characteristics that support rule enforcement

Characteristics that foster rule enforcement are crucial for preventing the tragedy of the commons that results from unrestricted access (Schlager & Ostrom, 1992). For instance, without the ability to enforce harvest restrictions, there is incentive to continue withdrawing from the common stock, which diminishes the availability of resources for everyone else and can lead to collapse (Schlager & Ostrom, 1992).

The context of this case study differs from the bulk of CPR literature informing this framework, which largely covers empirical studies of fisheries management (Pinkerton, 1989; Pinkerton & John, 2008; Rocha & Pinkerton, 2014; Pinkerton & Weinstein, 1995). The GINPR is a national park, not a fishery, and because shellfish within the GINPR are ecologically depressed, they are not producing commercially viable yields, and possibly not even sufficient yields for a food fishery (GINPR, 2012). Therefore, this section helps infer what characteristics would support effective co-management should the restoration of shellfish in the GINPR prove successful.

**Boundary clarity and visibility:** boundary clarity is favourable to local management, because if the boundary around the resource is clear and defensible from unlicensed outsiders, the rules are more easily enforceable (Agrawal, 2002). Pinkerton and John (2008) found that the visibility of shellfish harvest in particular was conducive for successful local monitoring and enforcement of access and harvest regulations.

**Resource size:** small size of the resource is favourable to local management because it makes it easier to enforce effective rules of restraint on access and harvest (Agrawal, 2002). Pinkerton (1989) found that co-management operates most favorably where the area is not too large, that is, where benefits may be linked to local waters. People are more likely to participate in enhancement, protection, and defense of their marine resources when they perceive their fate as being linked to the health of local waters, and local marine resources (Pinkerton, 1989, p. 7).

**Spoilability and storability:** if a resource is highly spoilable, this supports local management because illegal harvesters have a harder time storing the resource without detection for a reasonable length of time. Clams, for example, can be dug before a legal

harvest opening, held for weeks under water, and then delivered during a legal opening as if they had come from a different and legally harvestable beach (Pinkerton & John, 2008). This means that community involvement in local activities, such as monitoring and reporting unauthorized harvest, are important for the effectiveness of local management actions.

## **2.4. Nature of the State Agency**

This section analyzes which characteristics of the state agency contribute to good governance and foster organizational learning. I consider the size of the government agency, the ability to respond to local management needs, and the presence of leadership to advance co-management relationships. Complete co-management is characterized by effective governance, which builds institutions that are responsive and adaptive to change (Armitage et al., 2009; Berkes, 2009; Pinkerton, 1992). Therefore, I evaluate how the park reserve works with other organizations and institutions with respect to sharing information and solving problems. The propositions relevant to this case study are, as follows:

### **2.4.1. Size of the government agency and scale of mandate**

Co-management operates most favourably where the size of the government bureaucracy is small and its mandate is fairly regional or local, as smaller bureaucracies and localized mandates are more attuned to local management contexts (Noble, 2000, Pinkerton, 1989). I consider the levels of government, the scale of the GINPR's mandate, and the agencies that oversee shellfish harvest in the GINPR. This is in line with literature that recommends evaluating co-management in its broader institutional context (Carlsson & Berkes, 2005).

### **2.4.2. Leadership**

Case studies of co-management stress the importance of dedicated leadership to advance co-management relationships (Sessin-Dilascio, Prager, Irvine, & de Almeida Sinisgalli, 2015; Pinkerton, 1989). Pinkerton (1989) finds that co-management is more

likely to develop if there is an energy centre: a dedicated person or core group who applies consistent pressure to advance the process (Pinkerton, 1989, p. 29). Leadership is reflected by the motivations and attitudes of key individuals, who can facilitate successful co-management outcomes, irrespective of legal backing or formalized power sharing in the arrangement (Pinkerton, 1989, p. 29). Leadership can also refer to technical expertise and willingness to have hands-on working relationships with the community (Pinkerton, 1989, p. 28). I consider what dedicated resources exist to support the clam garden restoration project, as well as the mechanisms by which key individuals have advanced the co-management arrangement.

### **2.4.3. Mechanisms to foster organizational learning**

Literature on co-management finds that learning is a key aspect of successful arrangements, given the complexity and dynamics of natural resource problems (Armitage et al., 2009; Berkes, 2009; Pinkerton 1994, pp. 2374-5). The ability of organizations to learn and adapt can therefore dictate their success (Berkes, 2009). This ability requires concentrated efforts to support meaningful social interactions and establishing trust between technical experts and local users (Armitage et al., 2009; Pinkerton 1994, pp. 2374-5).

Network connections present in the arrangement can shed light on how a co-management arrangement can foster learning, social interactions, trust, and drive change using local values that challenge the status quo (Pinkerton, 1993). Examining network connections involves considering the hierarchies and organizations that make up the state agency. It also includes relationships with local organizations, and other communities of users that supports learning and information flow (Carlsson & Berkes, 2005; Young, 2002). Pinkerton (1989) found that co-management operates best where external support can be recruited (university, non-government scientists, credible organizations) and where external forums of discussion (e.g. technical committees) exist to address in co-management concerns (Pinkerton, 1989, p. 27). Such intellectual linkages between local-level actors can challenge governments to apply new values that support local priorities (Pinkerton, 1993).



I use the concept of issue networks to analyze how network connections support co-management. Issue networks are groupings of diverse players, with intellectual and emotional commitment to a topic (Hecl, 1978; p. 414). They gain power and influence through their expertise and experience, but rather than controlling a specific program or policy, their main thrust is the quest for more debate and exploration of their respective issue (Hecl, 1978, p. 414). Issue networks are powerful forces for change, because they are able to bring together actors across governmental and non-governmental sectors to share information, explore alternative possibilities and create social movements (Hecl, 1978; Pinkerton, 1993).

I consider what issue networks are present in the co-management arrangement. Additionally, I consider what opportunities exist for informal, creative problem solving. This is following Pinkerton's (1989) proposition that where more than one group of stakeholders is involved, co-management is more complete where there are opportunities for creative, informal problem-solving among stakeholders (possibly without government present) (Pinkerton, 1989, p. 28).

## **2.5. Nature of the Institutional Arrangement**

As previously mentioned, co-management scholars analyze how formalized institutional arrangements facilitate shared power and responsibility (Pinkerton, 1989; Berkes, 2009; Borrini-Feyerabend, Pimbert, Farvar, Kothari, & Renard, 2004). Ostrom's (1992) work on CPR management defines the concept of institutions as a "set of rules actually used (the working rules or rules-in-use) by a set of individuals to organize repetitive activities that produce outcomes affecting those individuals and potentially affecting others" (Ostrom, 1992, p. 13). This conceptual method of breaking apart the components of a collaboration helps determine who is eligible to make decisions, what actions are allowed or constrained, what procedures must be followed, who has access to information, and what costs and payoffs will be assigned to individuals as a result of their actions (Ostrom, 2003, p.251).

Analyzing institutional arrangements helps to identify characteristics that are conducive to complete co-management. The following section outlines the structure of

rights, duties and power, the core characteristics of institutional arrangements analyzed in this case study. I begin by outlining propositions on vertical and horizontal sources of power, which helps establish whether power is centralized (delegated by a top-down authority), or distributed (community driven). Then, I describe how formal (*de jure*) and informal (*de facto*) categories of rights influence co-management completeness. I consider formal and informal categories of rights in the context of statutes and government policies deliberately designed to foster engagement. This helps establish what formalized arrangements exist to support working relationships (Natcher et al., 2005) Finally, I categorize the levels of decision-making power, using *constitutional rights*, *collective choice rights* and *operational rights* to demonstrate the hierarchy of management rights.

The characteristics described in this section pertain to management rights and duties. The two words are used complementarily, where it is applicable, because many communities think more in terms of management duties rather than management rights (Pinkerton & Weinstein, 1995). For example, Pinkerton and Weinstein (1995) found that many fishers (both Indigenous and non-Indigenous) see themselves as caretakers of salmon and its habitat. Similarly, Indigenous elders see themselves as “taking care,” or “tending to” beaches when harvesting shellfish (Lepofsky et al., 2015).

### **2.5.1. Structure of rights, duties, and power**

#### ***Operational, collective choice, and constitutional rights and duties***

The balance of power in co-management arrangements depends on the parties’ operational and *collective choice rights*. Kiser and Ostrom (1982) use three hierarchical levels of rules: constitutional rules, collective choice rules and operational rules:

*Constitutional rules* set the terms of the institutional arrangement and its enforcement (Kiser & Ostrom, 1982, pp. 209-210). Constitutional rules stipulate the highest order of rights, framing the conditions for governance: they specify who can make decisions on access and use of the resource, and who can benefit from the resources (Kiser & Ostrom, 1982, p. 209; Carlsson & Berkes, 2005, p. 69). *Collective choice rules* stipulate how decisions are made, for example, the level of access or use of

a resource. *Operational rules* regulate the daily management activities (Carlsson & Berkes, 2005, p. 69). They are created and changed by collective choice actions that specify who may participate in changing collective rules and the type of agreement required for action (Ostrom 1986, p. 210).

### ***Horizontal and vertical power distributions***

Vertical and horizontal power describe two different types of management models: state managed systems (vertical) and community-managed systems (horizontal) (Pinkerton, 2003, p. 64). Vertical power distribution refers to organizations that retain centralized power, for example, ministries, departments, and parties at the center, with branches and offices at lower levels (Agrawal & Ostrom, 1999, pp. 21-25). Power can be delegated, for example, through the subsidiarity principle, as in the federal Parks Canada agency delegating *collective choice* rights to local Parks Canada branches (Pinkerton, 2003, p. 64). Power can also be derived from horizontal sources, for example, from treaty and *constitutional rights*, which recognize the right to self-government and emphasize self-determination (Pinkerton, 2003, p. 64).

Examining vertical and horizontal power distribution reveals how different organizations collaborate to solve complex natural resource management problems (Carlsson & Berkes, 2005; Pinkerton, 1993). Co-management would ideally create horizontal networks, by involving co-operative planning, research, education, and monitoring with other parties and jurisdictions (Pinkerton, 2003, p. 69). Such institutional linkages are useful for describing how communities influence political action (Pinkerton, 1993). For example, horizontal institutional linkages can bridge organizations with external leaders, bring together local knowledge and scientific knowledge, support consensus, build trust and social capital, and challenge the status-quo (Carlsson & Berkes, 2005; Pinkerton, 1993). Understanding vertical and horizontal power can therefore reveal how communities mobilize capacity to legitimize new management approaches (Pinkerton, 1993).

### ***De jure, de facto power***

Community rights and duties facilitate the power to address management challenges and can be *de jure*, i.e. formally recognized, and *de facto*, i.e. carried out

informally by resource users (Schlager & Ostrom, 1992, p. 19). *De jure* and *de facto* rights and duties are significant because their institutional arrangements shape the patterns of human interactions and the results that individuals achieve (Ostrom, 1992, p. 20). Formal recognition of rules leads to their codification in laws, policies and regulatory procedures (Schlager & Ostrom, 1992). *De jure* rules are therefore more secure (Schlager & Ostrom, 1992, p. 19). This is because parties with *de jure* rights can presume that if their rights were challenged in an administrative or judicial setting, their rights would most likely be sustained (Schlager & Ostrom, 1992, p.19).

*De facto* rules are commonly understood, followed, and perceived as legitimate within the local community, but not necessarily formalized (Schlager & Ostrom, 1992, p. 19). This is because what people actually do on the ground may or may not closely resemble formal laws expressed in national legislation, administrative regulations, and court decisions (Ostrom, 1992). *De facto* rules can therefore highlight where communities establish working terms that happen beyond formally recognized structures (Schlager & Ostrom, 1992). This can inform the degree to which local people perceive the legitimacy of the state (Pinkerton & John, 2008).

Evaluating rules-in-use, or the *de facto* interpretation of *de jure* rules, can reveal different interpretations of formal rules and organizational constraints (Pinkerton, 2003). The *de facto* nature of co-management arrangements in national parks exemplifies this (Berg et al., 2009). While there are *de jure* requirements to uphold Aboriginal rights and title, the way park agencies uphold these duties varies (Berg et al., 2009; Garner et al., 2010). In the GINPR, Parks Canada explains this arrangement is accommodating the pace and process that is desired by the respective First Nation (Respondent A, Personal communications, August 4, 2015). Evaluating the reasons for respective differences in the GINPR's consultation processes with different First Nations can reveal where barriers exist for complete co-management.

## **2.5.2. Management activities**

Pinkerton and Weinstein (1995) identified the key sub-processes, or activities, involved in co-management. This range of management functions and rights helps

identify where power is shared in both formal and informal processes (Pinkerton & Weinstein, 1995, p. 12). I use the activities in Table 2 to assess the distribution of power. The activities were adapted from CPR literature (Pinkerton & Weinstein, 1995; Berkes, 2009). I also consider activities that were identified by Parks Canada employees as key functions for the clam garden restoration. They include planning, policymaking and evaluation, enforcement of regulations, data gathering and analysis, sharing cultural information, and public education.

I analyze degrees of power by examining how *de jure* and *de facto* operational and *collective choice* rights are distributed in each management function. I consider how the bundle of rights held by the community contributes to complete co-management. This approach builds on previous case studies, which found that the successful exercise of rights on one level depends on the exercise of rights at higher and lower levels (Pinkerton, 2003). For example, narrow-scope, purely *operational rights*, like the ability to produce data, analyze data and dispute varying interpretations of data are integral to more *collective choice* rights, for example, helping plan a sustainable harvest (Pinkerton, 2003, p. 64).

**Table 2: Management activities evaluated for co-management completeness**

<b>Category of activities</b>	<b>Management Functions</b>	<b>Rights and duties</b>
<b>Planning, policymaking and evaluation</b>	Scoping problems and Setting objectives Long range planning Research Forming project partnerships	Right/duty to scope problems and objectives Right/duty to do long range planning Right to research key questions affecting community values Right/duty to educate own and larger community re. problems Right to establish project priorities
<b>Enforcement of regulations and rules</b>	Implementation and enforcement	Right/duty to enforce rules On harvest On habitat damage On zoning and activities permitted
<b>Data gathering and analysis</b>	Monitoring habitat Working with other resource management agencies Monitoring condition of clams Data gathering and analysis Restoration Harvest oversight	Right to access government information Right to collect own information Right to interpret information in light of local knowledge Right/duty to enhance or restore Right to make rules re: amount harvested, location of harvest, timing of harvest
<b>Sharing cultural information</b>	Coordinating community events First Nations, organizations, and others support restoration efforts – involvement of external groups, volunteer opportunities Gathering traditional knowledge	Right to work directly with others using the resource or whose activities affect the resource Right to access information Right to collect own information Right to interpret information in light of local knowledge
<b>Public education</b>	Publicity Visitor education Heritage information	Right to determine what information is shared with the public Right to shape what messages are communicated to the public and how

## **Chapter 3. Data collection**

This chapter describes the methodology used for gathering and interpreting information to inform the analytical framework. I used an iterative approach for two data collection methods: document analysis and semi-structured interviews.

### **3.1.1. Research design**

The research design stems from ethnographic research methodology. Ethnographic research explores human behavior, meanings, and social interactions, which are highly variable and locally specific (LeCompte & Schensul, p. 1). Ethnographic research is helpful in understanding complex systems and processes, and discovering information not found in written documentation that helps tell “the whole story” (LeCompte & Schensul, p. 36). This research approach is particularly suited to co-management, a complex process, which is embedded in both social and ecological systems, and seeks to understand human relationships and working procedures (Pinkerton, 2003; Natcher et al., 2005; Carlsson & Berkes, 2005).

At the first stages of the research, ethnographic research methods (informal conversations, going to events and semi-structured interviews with employees at the Gulf Islands National Park Reserve and the Clam Garden Network) helped establish the sociopolitical context, identify possible research questions, and scope out theoretical bases for an analytical framework. After establishing these foundations, I used a recursive approach to data collection and analysis. Recursive analysis is “an iterative process of raising questions, developing mini-hunches or hypotheses based on the questions, answering them with collected data, reformulating them in light of those data, then collecting new data to answer the reframed questions” (LeCompte & Schensul, p. 197).

My application of the recursive approach for data collection was two-fold. First, I completed a document review in order to gain a contextual understanding of the sociocultural, political, and institutional factors relevant to this case study. I considered documents prepared by both co-management partners: the federal government and the Hul'qumi'num-GINPR Committee. To a lesser extent, I also considered academic research and mainstream media reports, as they reflected relevant perspectives on eco-cultural restoration. Second, I completed semi-structured interviews with Parks Canada employees from the Gulf Islands National Park Reserve (GINPR) branch. For both methods, I looked for thematic categorizations of information, following the sections and overarching questions used in the analytical framework. See Table 1, which outlines each framework section and guiding analytical questions.

This research focuses primarily on the perspectives of Parks Canada employees. By focusing on the perspective of GINPR employees, this project aims to highlight where state agents perceive opportunities for advancing collaborative relationships with First Nations in the absence of a formal structure for “complete” co-management. As discussed in the chapters that follow, the GINPR employees interviewed are dedicated to advancing collaborative relationships with First Nations. Their perspectives reveal limitations and opportunities for complete co-management to develop.

The document analysis and semi-structured interviews complemented one another. I relied on both methods to triangulate information across sources, and to corroborate information received from any one source (Bowen, 2009). For example, the document analysis helped generate interview questions, the answers to which guided further document review, which I followed up with subsequent interviews. The same information sources informed the research design and to inform the analytical framework. For example, the information I gained from the document analysis was used for foundational information and context, and later became sources of data that informed the analytical framework. The sections that follow describe data collection processes for both approaches.



### 3.1.2. Document analysis

This section describes the documents that I reviewed to inform the analytical framework. I relied on information from government documents, reports prepared by the Hul'qumi'num Treaty Group, academic literature and other media to inform the analytical framework

Document analysis helps shed light on the inner workings of a particular organization or process (Mills, Bonner, & Francis, 2006). As previously mentioned, this was particularly useful for this study, as it helped ground the research in its sociopolitical and institutional context, elicit interview questions, and triangulate interview material in an iterative process. Table 3 summarizes the sources that informed the document analysis. I include the specific sections of the co-management framework informed by the documents.

**Table 3: Summary of documentary data sources**

Document type	Description	Use
Parks Canada documents	<ul style="list-style-type: none"> <li>• Parks Canada Agency, Guiding Principles and Operational Policies</li> <li>• Parks Canada Agency Corporate Plan (2005/6-2009/10)</li> <li>• Parks Canada Agency, A Handbook for Parks Canada Employees on Consulting with Aboriginal Peoples (2006)</li> </ul>	<ul style="list-style-type: none"> <li>• Context</li> <li>• Nature of the Institutional Arrangement</li> <li>• Nature of the State Agency</li> </ul>
Gulf Islands National Park Reserve documents	<ul style="list-style-type: none"> <li>• Gulf Islands National Park Reserve Interim Management Guidelines (IMGs) (2005)</li> <li>• Gulf Islands National Park Reserve Draft Management Plan (2013).</li> </ul>	<ul style="list-style-type: none"> <li>• Context</li> <li>• Nature of the Institutional Arrangement</li> <li>• Nature of the State Agency</li> </ul>

**Table 3: Summary of documentary data sources (continued)**

Document type	Description	Use
Internal sources: Clam Garden Restoration Project	<ul style="list-style-type: none"> <li>• Parks Canada (2013) Clam garden research project- Detailed Project Description</li> <li>• Interviews with GINPR employees</li> </ul>	<ul style="list-style-type: none"> <li>• Inform the Nature of the Institutional Arrangement</li> <li>• Nature of the State Agency</li> <li>• Inform management activities and process</li> </ul>
Documents prepared by the Hul'qumi'num Treaty Group	<ul style="list-style-type: none"> <li>• A Call to Action: Shared Decision-Making (2005), The Great Land Grab in Hul'qumi'num Territory (2005)</li> </ul>	<ul style="list-style-type: none"> <li>• Historical and political context</li> <li>• Nature of the Community: general vision for management of natural resources within the Hul'qumi'num Territory</li> </ul>
Hul'qumi'num documents specific to GINPR	<ul style="list-style-type: none"> <li>• Hul'qumi'num Treaty Group, (HTG) (2005a) Public Document: HTG Park Committee Report and Recommendations on Interim Management Guidelines</li> <li>• Fediuk, K., &amp; Thom, B. (2003, March). Contemporary &amp; Desired Use of Traditional Resources in a Coast Salish Community: Implications for Food Security and Aboriginal Rights in British Columbia.</li> </ul>	<ul style="list-style-type: none"> <li>• Context</li> <li>• Nature of the Institutional Arrangement</li> <li>• Nature of the Community: specific responses to management actions to natural resources within the GINPR</li> </ul>
Secondary sources	<ul style="list-style-type: none"> <li>• Academic studies on clam gardens, shellfish management</li> </ul>	<ul style="list-style-type: none"> <li>• Historical and political context</li> <li>• Nature of the resource</li> <li>• Nature of the institutional arrangement</li> </ul>
Other media	<ul style="list-style-type: none"> <li>• Social media, media articles</li> </ul>	<ul style="list-style-type: none"> <li>• Outcomes of project, community perspectives</li> </ul>

## **Government documents**

I examined three kinds of government documents: federal-level policy documents for Parks Canada, regional planning documents, and agreements specific to the Gulf Island National Park Reserve, such as project documents for the Clam Garden Restoration Project. Overall, these documents informed my understanding of the institutional context and de jure operational structure of Parks Canada—the formal structure within which co-management develops (Pinkerton & Weinstein, 1995; Agrawal, 2002; Ostrom, 1992).

I used general Parks Canada documents to provide context and background for research of partnerships between Parks Canada and Indigenous people (Parks Canada, 2009; 2011; 2013). I also reviewed Parks Canada documents specific to the Gulf Islands National Park Reserve (GINPR, 2007; 2010; 2013b). Management guidelines and plans are helpful for ascertaining the management arrangements present because they set out the strategic direction for the park, park zoning, and priority actions guiding park operations (GINPR, 2013b). Management plans also provide an overarching framework for management activities, for example, by indicating who has the rights/duties to enforce rules, who has the right to be consulted, and how access is zoned (GINPR, 2013b). Finally, I evaluated an internal document outlining the clam garden restoration project, including objectives and specific management activities (GINPR, 2013a). This document informed the assessment of duties and rights assigned to both parties.

## **Documents prepared by the Hul'qumi'num Treaty Group**

I relied on documents prepared by the Hul'qumi'num Treaty Group (HTG) and by the Hul'qumi'num-GINPR Committee to inform community perspectives on managing natural and cultural resources in the Hul'qumi'num traditional territory (HTG, 2005a; Hul'qumi'num-GINPR Committee, 2005). "*Shxunutun's Tu Suleluxwtst: In the footsteps of our Ancestors*," is an interim strategic land use plan for the Hul'qumi'num traditional territory (HTG, 2005a). The Plan describes the Hul'qumi'num peoples' vision for managing their traditional territories, which include lands within the GINPR. The Plan relies on previous planning processes, a mapping portfolio, and information supporting the HTG land claim negotiations. It also builds upon 136 interviews with members of

HTG communities. Perspectives are featured in survey results, and in quotes from key informants, community representatives, elders, and technical employees (HTG, 2005a). *“HTG Park Committee Report and Recommendations on Interim Management Guidelines,”* outlines community perspectives on how co-management should proceed in the GINPR specifically (Hul’qumi’num-GINPR Committee, 2005). Together, these documents provided ethnographic information, community perspectives, and local experiences that informed community priorities for co-management. This is consistent with other studies that rely on primary documents as starting points for further inquiry (Bowen, 2009).

There are a couple of limitations to this approach. First, critical Hul’qumi’num perspectives regarding the management arrangement in the GINPR are likely missing from this assessment, since I did not interview any Hul’qumi’num community members. For instance, HTG documents do not represent all Hul’qumi’num community residents and they do not reflect opinions about clam gardens specifically. This is consistent with limitations of document analysis: they are prepared for a purpose other than the research study, which might render insufficient detail about the specific study subject (Bowen, 2009).

Furthermore, in the absence of more recent publically available documents from Hul’qumi’num communities, my analysis relies on research that took place over ten years ago. Current Hul’qumi’num community perspectives would present invaluable input into this project.

I recognize that I impose an outsider’s interpretation of the community’s vision for co-management, by selecting portions of the HTG documents to analyze. To avoid the misappropriation of community perspectives, I include this information for the purposes of context only; I do not attempt to critique or analyze community perspectives beyond what is articulated in HTG documents.

### **Academic literature**

My use of academic literature to inform this research project was two-fold. First, I referred to previous case studies on co-management to draw out propositions relevant

for the framework. Pinkerton's extensive body of literature on co-management in fisheries (Pinkerton, 1989; Pinkerton & Weinstein, 1995; Pinkerton, 2003; Rocha & Pinkerton, 2014) produced numerous propositions on factors contributing to complete co-management. I also used academic literature to draw out propositions that foster organizational learning, working relationships and trust (Carlsson & Berkes, 2005; Berkes, 2009; Pinkerton, 1989; 1993; 1994). .

Because of the wide-ranging diversity of co-management contexts and the varying sampling and data collection techniques, a central theory to predict complete co-management outcomes does not exist (Agrawal, 2002, p. 43). Agrawal's (2002) extensive review of co-management propositions found as many as 35 factors that contribute to the organization, adaptability, and sustainability of CPRs (Agrawal, 2002, p. 43). Pinkerton's studies, which span three decades (1989, 1994, 2008; Jones, Rigg, Pinkerton, 2016; Pinkerton et al., 2014), have elicited dozens of propositions as well.

Thus, even with a rich body of literature to build on, case studies run the risk of identifying propositions that are counter to previous findings (Agrawal, 2002, p. 43). Scholars point out the importance of considering configurations of conditions for complete co-management as a solution (Agrawal, 2002, p. 53). Because so many conditions for complete co-management exist in the literature, it is possible that this case study omitted relevant propositions on what constitutes success. Nevertheless, this is a starting point for considering what can constitute a successful arrangement.

I also referred to academic literature in order to inform components of the analytical framework: the historical context and the nature of the resource. For the historical context, academic literature described the longstanding land question and political developments affecting co-management. Studies on co-management of shellfish helped inform the nature of the resource, as they focused on specific elements that supported and limited successful outcomes.

### **Other media**

I referred to communications used by Parks Canada, such as social media posts and press releases for information specific to the clam garden restoration project. The

GINPR often publicizes its ongoing projects, which includes quotations from participants and examples on specific activities. For example, I referred to social media posts that quoted Hul'qumi'num community participants at clam garden events.

### **3.1.3. Semi-structured interviews: Parks Canada perspective**

I conducted semi-structured interviews with GINPR employees. As previously described, the interviews complemented the document review in a recursive process, describing *de facto* management processes and triangulating information generated through the document review. This process helped 'ground-truth' my understanding of formal institutional arrangements. The interviewees described how formal committees operate and how everyday activities interpret management agreements and policies. This was an integral component of the project because what people actually do on the ground may or may not closely resemble formal laws expressed in administrative regulations and policies (Ostrom, 1992). The interviews were therefore crucial for identifying the informal process by which co-management is established.

I structured the interviews using an adaptation of the Delphi method, which uses iterative questionnaires with successive interviews with the same participants and can be adapted to respective researcher needs (Skulmoski, Hartman, & Krahn, 2007). I built each round of interviews based on previous rounds, by eliciting in-depth discussions as I collected and interpreted new information (Skulmoski et al., 2007). I used descriptive questions, following recommendations from Spradley (1979). Descriptive questions often lead to the most significant happenings or observations, because they are open-ended and allow the respondent to direct the conversation to stories or events that they find to be the most memorable or meaningful from particular scenes, places, and/or sequences of events (Spradley, 1979). Descriptive questions were important for illustrating participants' experiences and perceptions of project outcomes.

## **Chapter 4. Case Study Analysis**

This chapter presents the case study results, following the sections outlined in Chapter 2: Analytical Framework. Each section of the analysis responds to questions outlined in Table 1: Summary of co-management framework (See Chapter 2).

### **4.1. Historical and Political Context**

This section discusses the long-term historical developments and present political situations that are affecting co-management in the GINPR. The political context includes the park reserve's creation, which happened in the midst of a longstanding land dispute between First Nations and the Canadian government in British Columbia. The political context also includes ongoing negotiations between Hul'qumi'num communities and government agencies, in which communities are asserting *constitutional rights* over their traditional territories (e.g. the British Columbia Treaty Process). Overall, the political context gives rise to co-management in the park reserve. The parties have worked together since 2004, and positive relationships between the parties appear to be building (Gardner, 2009).

#### **4.1.1. Co-management claim**

From time immemorial, Hul'qumi'num people have owned their traditional territories (HTG, 2005a). Hul'qumi'num people's continuous occupation of their traditional lands is evident in their place names blanketing the territories, their extensive knowledge of harvest sites, trade routes and sacred areas and in their oral histories and knowledge of family-owned hunting territories and fishing grounds (HTG, 2005a, p.12). Archaeological evidence dates back at least 9,000 years showing Hul'qumi'num peoples' continuous occupancy and use of their traditional lands and resources (HTG, 2007).

A longstanding territorial dispute known as the “Great Land Grab” is at the forefront of the Hul’qumi’num peoples’ co-management claim (Union of BC Indian Chiefs, 2005). The “Great Land Grab” refers to the Crown’s transfer of millions of acres of land into private ownership in order to pay for the expansion of the Canadian railroad throughout the 1880s (Union of BC Indian Chiefs, 2005, p. 13-20). Colonists “sold” First Nations lands, despite the fact that those First Nations never signed treaties, nor surrendered their lands, nor participated in the process or gave consent to the sale of lands in their territory (Sullivan, 2006). Despite devastating diseases and disruptive change, there was no armed conquest and many Indigenous communities remained resident on ancestral sites (Morales, 2006).

Since that time, Coast Salish First Nations have been vigorously defending their territories and resisting encroachment on their livelihoods and cultural continuity, which are dependent upon fishing, gathering, hunting, and economic and ceremonial uses of specific sites (Union of BC Indian Chiefs, 2005). In 1993, six Coast Salish First Nations who have long been linked through extensive cultural, social, economic, and political networks came together under the umbrella title of the Hul’qumi’num Treaty Group (HTG) to participate in the BC treaty process (Morales, 2006). HTG includes the Cowichan Tribes, Halalt First Nation, Lake Cowichan First Nation, Lyackson First Nation, Penelakut Tribe and Stz’uminus First Nation (Morales, 2006).

One of HTG’s first major tasks was to produce a Statement of Intent (SOI), in order to identify their traditional territory (Egan, 2008). In submitting their SOI, the Hul’qumi’num identified an area encompassing approximately 335,000 hectares of land on southeast Vancouver Island, in the southern Gulf Islands, and along the lower reaches of the Fraser River (Egan, 2008, p. 18).

In 2003, nearly ten years into the treaty negotiations, the federal government and the province of British Columbia announced a new park reserve in the Southern Gulf Islands. The announcement proclaimed that the park was established by combining \$8.08 million in land “acquisitions,” under the federal and provincial Pacific Marine Heritage Legacy Program (Parks Canada, 2001). Parks Canada press releases further highlighted that the federal government created the GINPR to promote ecological



protection and sustainability in an area increasingly impacted by growth in the surrounding urban areas (Parks Canada, 2001). Announcements that followed explained that the agency saw urban growth as an opportunity to "engage new markets in discovering the national park experience" (GINPR, 2013b, p.9).

Hul'qumi'num members of the land committee (who found out about the park's creation by reading the newspaper) were shocked (Egan, 2008, p.21). The HTG Statement of Intent Aboriginal Title Core Territory included the GINPR's territories—in their entirety (Egan, 2008, p.21). HTG filed this map with the federal and provincial governments, or at least the treaty negotiating arms of these governments, approximately ten years prior to the GINPR's creation (Egan, 2008, p.21). Members of the HTG land committee interpreted these developments the federal and provincial governments' disregard for the concerns of Hul'qumi'num people when it comes to matters of land rights (Egan, 2008, p.21). "At the stroke of a pen," the establishment of the park effectively removed these lands from the treaty negotiation table (Egan, 2008, p.21). One of the most distressing issues for the HTG land committee was that they had not been at all involved in the decision to establish the GINPR (Egan, 2008, p. 21).

While the government's disregard for the ongoing treaty process while establishing the GINPR calls into question the very legitimacy of the park reserve, co-management provides a unique opportunity to reclaim control over traditional territories. Only 8% of the Hul'qumi'num traditional territory is now on the table for negotiation, since the government is not willing to expropriate lands from private citizens for the settlement of treaties (Morales, 2006).

HTG negotiators have expressed concern that expropriated land continues to benefit non-Indigenous communities while producing little benefit to the Indigenous people displaced from their traditional lands (Morales, 2006). While the majority of the HTG core traditional territory is owned by private timber companies, little benefit flows into Hul'qumi'num communities (HTG, 2005a). Under Canada's Community Well-Being Index, used to examine the well-being of Canadian communities, the six Hul'qumi'num communities scored between 448th and 482nd out of 486 communities surveyed in B.C.

for reasons that include lack of access to traditional natural resources and private land base (Morales, 2006).

HTG negotiators have used the terms “getting to 100 percent” as reflecting the desires of the Hul’qumi’num people to gain recognition to “100 percent of Hul’qumi’num territory and . . . greater control over or compensation for lands and resources within that territory” (Egan, 2012, p. 408). The Hul’qumi’num peoples’ position has also been legitimized internationally by the Inter-American Commission on Human Rights, which acknowledged that the Canadian legal system has proved inadequate for resolving the Hul’qumi’num pursuit of just compensation (HTG, 2009).

#### **4.1.2. Current co-management agreement**

Hul’qumi’num communities work collaboratively with Parks Canada on management of the GINPR through the Hul’qumi’num-GINPR Committee. The Committee formed in 2004, one year after the park was established (GINPR, 2012). The Chiefs of the HTG have appointed representatives to the committee (GINPR, 2012).<sup>1</sup>

GINPR employees explained the process is iterative, evolving based on the specific needs and interests of the Committee, as they are raised through periodic meetings with parks employees (Respondent A, personal communications, Aug. 4<sup>th</sup>, 2015). A survey completed by the GINPR found that sixty percent of surveyed First Nations leaders consider that collaboration with Parks Canada has created meaningful outcomes (GINPR, 2013b, p. 24).

#### **4.1.3. Co-management focus: clam garden restoration**

The focus of the partnership between the GINPR and the Hul’qumi’num-GINPR Committee is a clam garden restoration project. The project stems from years of

<sup>1</sup> Parks Canada also has cooperative management agreements with four other Coast Salish nations: Tseycum First Nation and three Saanich First Nations (Pauquichan First Nation, Tsartlip First Nation and Tsawout First Nation) (GINPR, 2012). These agreements are outside the scope of this research.

consultations with communities (HTG, 2005a; Respondent A, personal communications, 2014). Since the early stages of the partnership, Hul'qumi'num communities have made it clear that they continue to value the park's lands and waters for harvesting traditional foods (HTG, 2005a). In particular, communities stress the importance of shellfish harvest (HTG, 2005a).

Clam harvest in the regions surrounding Vancouver Island has been heavily impacted by urban and industrial development and the depletion of marine resources (Ayers et al., 2012; Fediuk & Thom, 2003). A community study found that people get much less traditional food than they desire, and that this, when combined with poverty, has serious implications for health and food security (Fediuk & Thom, 2003). Access to beaches has decreased due to privatization and commercialization of land in traditional Hul'qumi'num territories (HTG, 2005a). In particular, the privatization of beaches through lease agreements with the Province for aquaculture and private properties occupying entire shorelines have reduced access to intertidal resources (HTG, 2005a, p. 30).

In 2013, in acting on the recommendations raised through its consultation efforts, the park authority proposed an initiative to restore a clam garden within the GINPR. The project proposed to examine the impact of clam gardens on the intertidal ecosystem and the efficacy of clam gardens as a resource management tool for Parks Canada (GINPR, 2013a). Clam gardens are human-made intertidal terraces, which were constructed as part of traditional management practices that First Nations in the Pacific Northwest used to enhance clam production (Haggan et al., 2006). Clam gardens consist of a rock boulder wall constructed near the zero tide line; this results in a terrace on the landward side of the wall that significantly expands shellfish habitat and productivity (Groesbeck et al., 2014; Harper, Haggerty & Morris, 1995).

Clams have been a staple food source for Northwest coast First Nations for at least 5000 years (Cannon & Burchell, 2009). Culturally, clam gardens constituted places of learning where elders and youth would come together to pass on cultural and educational knowledge (Haggan et al. 2006; HTG, 2005a). While harvesting and processing shellfish and maintaining the health of the garden, elders would share

teachings and stories of the tides and local ecology and of the importance of family and community (GINPR, 2013a).

Today, clam gardens are no longer constructed and tended to at the scale of traditional times. However, recent scientific evidence suggests that clam gardens increased potential harvests of clams, while maintaining overall shellfish productivity (Groesbeck, 2013). This is consistent with other studies showing that Northwest Coast peoples have been actively managing their environments for centuries (Deur & Turner, 2005; Lepofsky & Lertzman, 2008). The culmination of these studies led to the application of a new conservation approach, which advances the perspective that cultural knowledge and wisdom, if applied in locally situated contexts, can benefit ecological integrity (Augustine & Dearden, 2014; Senos et al., 2006; Cuerrier et al., 2015).

The project proposed to “improve ecological integrity and revitalize traditional practices, and provide a unique opportunity to connect visitors to cultural and ecological landscapes” (GINPR, 2013a). From the perspective of employees at the GINPR, the use of traditional management techniques to restore shellfish and to manage harvest within the park were seen as potential avenues for supporting both ecological and socially desired outcomes (Respondent A, personal communications, Aug 4, 2015). The GINPR and Hul’qumi’num-GINPR Committee established a group of Hul’qumi’num knowledge holders, to guide the clam garden restoration (Respondent B, Personal communications, April 7, 2016).

Overall, Hul’qumi’num communities’ co-management claim in the GINPR establishes grounds for complete co-management. Foundational steps have begun to take place, with the partnership between Parks Canada and the Hul’qumi’num-GINPR Committee. The clam garden restoration project facilitates common ground for developing working relationships, with objectives to support both ecological and socially desired outcomes (GINPR, 2013a). The next section describes the nature of the community. Presenting community perspectives sets the stage for understanding how the GINPR is responding to local needs.

## **4.2. Nature of the Community**

This section presents an overview of Hul'qumi'num communities' visions for what co-management should accomplish. I include perspectives raised in the GINPR's consultations with HTG communities and in the HTG Land Use Plan (Hul'qumi'num-GINPR Committee, 2005; HTG, 2005). The following sections outline community visions for co-management in the GINPR, priorities for managing shellfish, and priorities for managing cultural heritage. The last section includes an analysis of characteristics that influence co-management outcomes, namely geographic spread and social cohesion.

### **4.2.1. Vision for what co-management should accomplish**

The Hul'qumi'num people outline their vision for management of land, water and resources in their traditional territories in the HTG Land Use Plan (2005). A salient message reoccurs throughout the plan: the importance of maintaining connections with land and resources as a way of supporting social, cultural and economic needs.

People's connection to land is inextricably linked to a healthy environment. Hul'qumi'num people view restoration and oversight as means of ensuring environmental protection:

We envision a future in which our land and sea resources are abundant and healthy and our communities are vibrant and strong: where our beaches and rivers are clean and healthy and support abundant salmon, other fish and beach foods for our communities; where our forests are managed wisely, to provide jobs and benefits for Hul'qumi'num people while also protecting wildlife and other values; where resources that have been damaged or over-harvested in the past have been restored to their former abundance and systems are in place to prevent abuse and over-use; and where pollution and contamination have been cleaned up. (HTG, 2005a, p. 22)

There is an emphasis on a thriving culture and language within the Hul'qumi'num communities and the connection of youth and elders. The practice of actively managing natural resources is integral to the vision:

We are all working together, actively managing all of our land and resources to ensure that future Hul'qumi'num generations will have the opportunity to work and play and prosper here in our ancestral home. (HTG, 2005a, p. 22)

## ***Vision for co-management in the GINPR***

One year after establishing the GINPR, Parks Canada sought advice from the Hul'qumi'num-GINPR Committee on the development and management of the park reserve, (Hul'qumi'num-GINPR Committee, 2005a). In response, the Committee has provided numerous verbal and written recommendations, including site-specific guidance (Hul'qumi'num-GINPR Committee, 2005).

In their written communications, the Hul'qumi'num-GINPR Committee addressed co-management. The Committee stressed the importance of meaningful participation in decision-making, and raised constitutionally protected rights and the Hul'qumi'num people's implicit status as co-owners of GINPR territories:

There is a firm and continued assertion by Hul'qumi'num leadership and community members that the lands in the GINPR are unceded aboriginal title lands. Flowing from this, Hul'qumi'num people assert that they should not be merely providing 'advice' to the Director General for National Parks for their management, but must be involved in substantive Government-to-Government relationships of cooperative management decision-making about their ancestral lands. The consultation and accommodation process that Parks Canada is engaged in with Hul'qumi'num member First Nation communities provides an opportunity for this kind of cooperative management. The recommendations made by the committee, and those by the Chiefs and Councils must be given considerable weight as aboriginal title and rights are at stake." (Hul'qumi'num-GINPR Committee, 2005, p. 25)

Warren Johnny, the representative for Stz'uminus First Nation, expressed the significance of measures in place to assure that Hul'qumi'num people retain the rights to access and use resources in the park:

Co-management is actively participating. We want to actually participate. We want to be fully involved in management. We need to be involved in how federal regulations will interact with our constitutionally protected food, social and ceremonial fishing rights. We should have the base data available to us as First Nations managers, including statistics and surveys, in order to be involved with the management of the park. These issues need to be conveyed back to the communities. Any kind of closure through zoning or otherwise, is a serious concern to them. (Hul'qumi'num-GINPR Committee, 2005, p. 25)

The Committee stressed that hunters, fishers, beach food harvesters, plant collectors and other community members continue to access and use the Gulf Islands

for food, social, ceremonial, and commercial purposes and that lands in the GINPR are vital for the continuation of Hul'qumi'num ways of life (Hul'qumi'num-GINPR Committee, 2005). When the park was established, there was some concern in the communities that it would further limit access to their cultural resources and their traditional ways of life. Hul'qumi'num people expressed strong support for conservation measures, (e.g. efforts to protect ecological integrity), in a way that continued to support their distinctive cultural practices (Hul'qumi'num-GINPR Committee, 2005b). There was also a strong desire to maintain an active presence on the land along with GINPR employees, to support management activities:

It is essential to have community members 'out there' on the land with the ecologists and other parks workers so that knowledge and experiences about the land can be appropriately shared and exchanged, and that management decisions can be made based on experience ('proof'), rather than hypothetical models (HTG, 2005a, p. 10).

### ***Vision for managing shellfish***

Hul'qumi'num people stress the importance of shellfish to their communities, both as a staple food source and as an integral part of Hul'qumi'num people's culture (HTG, 2005a, p. 30). Shellfish are harvested from February through the summer, and Hul'qumi'num people continue to harvest along beaches within the GINPR (HTG, 2005a). The main harvested species include basket cockles, horse clams and butter clams, and are gathered and preserved for food, ceremonial, social and trade purposes (HTG, 2005a, p. 30).

GINPR consultations with Hul'qumi'num community members found that there is strong interest for harvest activities to increase throughout the GINPR. In 2009, a GINPR consultation with local First Nations, which included the Hul'qumi'num-GINPR Committee, found that developing protection and harvest plans for seafood was a priority (Parks Canada, 2010, p. 2). The Hul'qumi'num-GINPR Committee has also specifically recommended harvest-focused initiatives throughout the GINPR, by outlining the importance of "the facilitation of the on-going harvesting of marine and terrestrial resources with an objective for long-term use (i.e., forever)" (HTG, 2005a, p. 10).

Hul'qumi'num community members see their role as caretakers of the beaches (HTG, 2005a). Many Hul'qumi'num communities see the unharvested beaches of today as unhealthy, dead, or dying, because of the thick layers of sea lettuce, the abundance of large dead clams, and compact sediments that accumulate when beaches are not actively harvested (Fediuk & HTG Parks Committee, 2011). Other surveys with Hul'qumi'num community members supported these perspectives, finding a common belief that intertidal ecosystems are healthier and more productive with traditional management practices than without them (Ayers et al., 2012). One respondent raised the point that if a clam beach was not harvested, and thus the substrate not dug over on a regular basis, it would become less productive (Ayers et al., 2012, p. 271).

Some challenges for co-management in protected areas, (consistent with challenges outlined in Chapter 1), stem from fundamental value differences. Indigenous world-views see humans as integral part of ecosystems, positing continuous occupation and use, for example, via harvest and maintenance. This can run counter to conservation measures that restrict human activities. Previous studies found that Hul'qumi'num people resist conservation practices that restrict human access and use (Ayers et al., 2012). At the same time, tensions exist because Hul'qumi'num people generally support conservation, but fear that conservation restrictions will further alienate them from their traditional territories. This nuance is articulated in the following statement:

Most Hul'qumi'num people support controls or limitations on shellfish harvesting when there is a genuine need for conservation. Many are opposed to such controls on the grounds that the use of resources for food and cultural gatherings should not be limited. Many people are in favour of excluding non-Natives — at least from commercial harvesting—because the Hul'qumi'num have a right to the resources in their own territory and because there are not enough resources to meet all the demands (HTG, 2005a, p. 33).

The HTG Land Use Plan (2005) includes a chapter specific to the management of intertidal (beach) resources. Table 4 includes selected goals for managing intertidal resources, as outlined in the Land Use Plan (HTG, 2005a, p. 30). Hul'qumi'num people see themselves playing central roles as owners and managers of intertidal beach resources in their traditional lands. Themes emerging from these goals and strategies include protecting continuous access to beach resources and cultural connections to



resources, participating in decision-making, supporting harvest, and developing economic opportunities.

**Table 4: Hul'qumi'num communities' goals for managing intertidal (beach) resources**

<ul style="list-style-type: none"><li>• Strengthen and restore the ties between intertidal resources and the Hul'qumi'num diet, culture and way of life.</li></ul>
<ul style="list-style-type: none"><li>• Increase the availability of intertidal resources to Hul'qumi'num communities. Ensure that needs for food and ceremonial uses are met.</li></ul>
<ul style="list-style-type: none"><li>• Increase Hul'qumi'num member First Nation tenures and management authority over intertidal resources and re-establish Hul'qumi'num rights to the foreshore.</li></ul>
<ul style="list-style-type: none"><li>• Provide opportunities to participate in long-term, sustainable shellfish aquaculture enterprises.</li><li>• Build capacity for commercial fisheries co-management.</li></ul>

These goals are included in the (2005) Hul'qumi'num Land Use Plan, which community directives for managing intertidal resources in the Hul'qumi'num traditional territory. The Land Use Plan also outlines strategies for supporting access to beach resources, food and traditional use, tenures and management authority, and capacity building and economic development (HTG, 2005a, p. 30).

### ***Vision for managing cultural heritage***

The HTG Land Use Plan outlines key recommendations for managing cultural resources (i.e., archaeological sites, historical lands and places for spiritual renewal) throughout the Hul'qumi'num traditional territories (HTG, 2005a). Maintaining cultural connections to lands and waters, as a fundamental way to protect Hul'qumi'num peoples' identity, is the principle underlying the key recommendations (HTG, 2005a, p. 53). Overall, Hul'qumi'num people desire more control over heritage management. This includes being able to identify and protect archaeological sites and cultural lands, direct research and conservation, and promote educational opportunities for language, culture, and heritage (HTG, 2005a, p. 53-54).

These recommendations are relevant for co-management in the GINPR, as they imply a clear desire to have more decision-making power over the management of cultural heritage and territory in general. Previous consultations between GINPR and the Hul'qumi'num-GINPR Committee also led to recommendations for heritage management in the park reserve, which are consistent with the recommendations in the HTG Land Use Plan (Hul'qumi'num-GINPR Committee, 2005). The Hul'qumi'num-GINPR Committee called for joint efforts to protect sensitive heritage sites and promote cross-cultural understanding between Hul'qumi'num people and recreationists (Hul'qumi'num-GINPR Committee, 2005, p. 19). Through joint decision-making, the Committee expressed optimism that collaboration can lead to public understanding and respect for Hul'qumi'num culture. The Hul'qumi'num-GINPR Committee also saw joint decision-making in the park reserve as supporting efforts to revitalize language and cultural practices within Hul'qumi'num communities (Hul'qumi'num-GINPR Committee, 2005, p. 19).

The protection of cultural heritage sites is relevant for planning in the park reserve, when recreational uses threaten to damage heritage sites. This perspective reflects a broader concern that heritage sites, including ancient cemeteries, burial grounds, old village locations, rock art sites, and midden sites are being vandalized and encroached on by development (HTG, 2005a, p. 53). The Hul'qumi'num-GINPR Committee expressed concern between visitor activities and sensitive cultural heritage sites located in recreation areas (Hul'qumi'num-GINPR Committee, 2005). The

Committee urged parks employees to ensure that recreational uses are compatible with heritage protection by working collaboratively to zone areas throughout the GINPR (Hul'qumi'num-GINPR Committee, 2005).

The HTG Committee sees GINPR as an opportunity to promote cross-cultural understanding between Indigenous people and non-Indigenous Canadians, by building a greater public understanding of Hul'qumi'num history, culture, language, and relationships to land (Hul'qumi'num-GINPR Committee, 2005, p. 19). As such, Hul'qumi'num people express a strong desire to assert more control over what is communicated to the public concerning Hul'qumi'num culture, language, and history. Committee members expressed this includes telling “the whole truth about First Nations issues,” making sure that cultural imagery is appropriate and respectful, and that certain sensitive messages are first reviewed by elders (Hul'qumi'num-GINPR Committee, 2005, p. 18-19). The Hul'qumi'num-GINPR Committee further expressed an optimism that raising public awareness may result in increased respect for First Nations history, knowledge, sacred sites and hunting/fishing territories (Hul'qumi'num-GINPR Committee, 2005, p. 19). In this respect, the Committee acknowledges that collaborative efforts on public awareness are more timely and costly, but nevertheless, urged the GINPR to promote greater involvement in reviewing draft materials which concern Hul'qumi'num culture, language and history before they are made public.

Asserting more control over research, conservation, and management of Hul'qumi'num heritage sites is also a means of promoting cultural education within the Hul'qumi'num communities themselves (HTG, 2005a, p.54). The HTG Land Use Plan explains that documentation of heritage sites will help provide public education for Hul'qumi'num people to understand the past and pass on to future generations knowledge of how their Ancestors lived (HTG, 2005a, p. 54). The Plan further explains that language and teachings related to Hul'qumi'num concepts of land and resource stewardship are important for supporting traditional methods of practicing traditional livelihoods and earning a living consistent with traditional ways, another desire strongly expressed by community members (HTG, 2005a, p. 54). “The committee is optimistic that by working collaboratively with Parks Canada, important Hul'qumi'num stories,

histories, worldviews and experiences can reach a broader public while strengthening their presence within the Hul'qumi'num community itself" (HTG, 2005a, p. 19).

The Hul'qumi'num-GINPR Committee expressed a desire to create educational opportunities for language and cultural heritage, particularly for young people. The Committee urged concerted effort into the development of First Nations interpretive 'themes,' which contain messages important and strategic for the Hul'qumi'num people (Hul'qumi'num-GINPR Committee, 2005, p. 19).

Table 5 includes the goals outlined for heritage and cultural values in the HTG Land Use Plan (HTG, 2005a, p. 54). These goals re-affirm community desires to protect and preserve heritage sites, reaffirm traditional uses of land, and support knowledge related to Hul'qumi'num culture, language and history. The goals in Table 5, along with the perspectives outlined above, are useful to consider in the analysis of co-management, because they provide a basis for understanding the motivations for the Hul'qumi'num-GINPR Committee to get involved in the clam garden restoration project. It is therefore useful to consider whether similar goals and outcomes are reflected in the outcomes of the clam garden restoration project.

**Table 5: Hul'qumi'num communities' goals for managing heritage and cultural values**

<ul style="list-style-type: none"> <li>• Preserve and protect traditional use areas, cultural heritage sites, sacred sites, and other features and values with heritage and cultural significance to Hul'qumi'num people.</li> </ul>
<ul style="list-style-type: none"> <li>• Reaffirm and revitalize Hul'qumi'num traditional uses of the land, cultural practices and learning.</li> </ul>
<ul style="list-style-type: none"> <li>• Ensure that Hul'qumi'num language and traditional knowledge is understood and broadly used in land and resource management.</li> </ul>

The Hul'qumi'num Land Use Plan outlines community directives for managing heritage and cultural values in the Hul'qumi'num traditional territory (HTG, 2005a, p. 54)

Overall, the Hul'qumi'num communities' visions for managing their traditional territories strengthen the case for complete co-management in the GINPR. The stated goals, strategies and overall recommendations with respect to management outcomes are favourable for co-management, as they demonstrate a willingness to work cooperatively and reclaim authority in local management. It is unclear whether these perspectives were taken into consideration by the GINPR parks authority specifically.

This would be helpful to know for understanding the extent to which community consultations influence decision-making in the park reserve. Nevertheless, community visions for what co-management outcomes establish a directive for shared decision-making in the park reserve.

#### **4.2.2. Community Characteristics for Co-management**

This section evaluates whether social cohesion and geographic spread of communities are favourable to co-management: I consider social cohesion as a broad characteristic of communities, including successful past experiences, trust and shared norms, and a cohesive social system based on kinship and/or ethnicity (Baland & Platteau, 1996; Pinkerton, 1989). In an effort to focus the analysis, I limit the consideration of past experiences to the working outputs of HTG (for example, the Land Use Plan, consultation documents, etc.). Social cohesion is relevant for the clam garden restoration project because shared knowledge, values, and understandings of traditional clam digging practices are important for informing the ecological and cultural elements of the restoration project (Lepofsky et al., 2015). Social cohesion based on a cultural connection to shellfish fosters a strong identification with and interest in managing the resource, a condition that is conducive to complete co-management (Pinkerton & John, 2008). Proximity of the community to the resource is favourable for rule enforcement and for participation in management because of ease of access and use (Baland & Platteau 1996, p. 343-345; Ostrom et al. 1994). This characteristic is discussed in the second half of this section.

##### ***Social cohesion***

The planning outputs of HTG and persisting cultural ties that bind Hul'qumi'num communities together suggest that social cohesion exists within the Hul'qumi'num-GINPR Committee. Literature suggests that time and experience working on recurring tasks fosters social capital, i.e., shared knowledge, understanding, norms, rules, and expectations about patterns of interactions that groups of individuals bring to a recurrent activity (Ostrom, 1994). While it is difficult to discern the specifics of group dynamics within the Hul'qumi'num-GINPR Committee without community interviews, the working history and planning outputs of HTG suggest that social cohesion exists. For example,

the HTG land use planning process involved community visioning outputs, which required shared knowledge, norms and expectations for future development.

Social cohesion can also be considered from the perspective of cultural and ethnic ties as they relate to shellfish, particularly because shared knowledge, values and common understandings of traditional clam digging practices are tied to both ecological and social outcomes (Lepofsky et al., 2015). In essence, knowledge about clam gardens is necessary for the restoration work to support more productive clam habitat. While it is difficult to discern the degree of knowledge about clam gardens within the communities represented by the Hul'qumi'num-GINPR Committee, recent collaborations between academics and First Nations communities throughout the Northwest Coast suggest contemporary knowledge regarding specific restoration practices exists in the region (Lepofsky et al., 2015). Furthermore, as discussed later in the analysis (Section 4.5.2.), one of the management activities in the restoration project has been the establishment of a group of Hul'qumi'num knowledge holders to guide the restoration, which suggests the community has a knowledge-base about shellfish, as well as a strong interest in and identification with the resource (Pinkerton & John, 2008). There is also consensus and support for revitalizing cultural practices, especially ones that bring elders and youth together (HTG, 2005a). In this respect, the community is united in the incentives they have for participating management, and in a shared vision for what they want the project to accomplish.

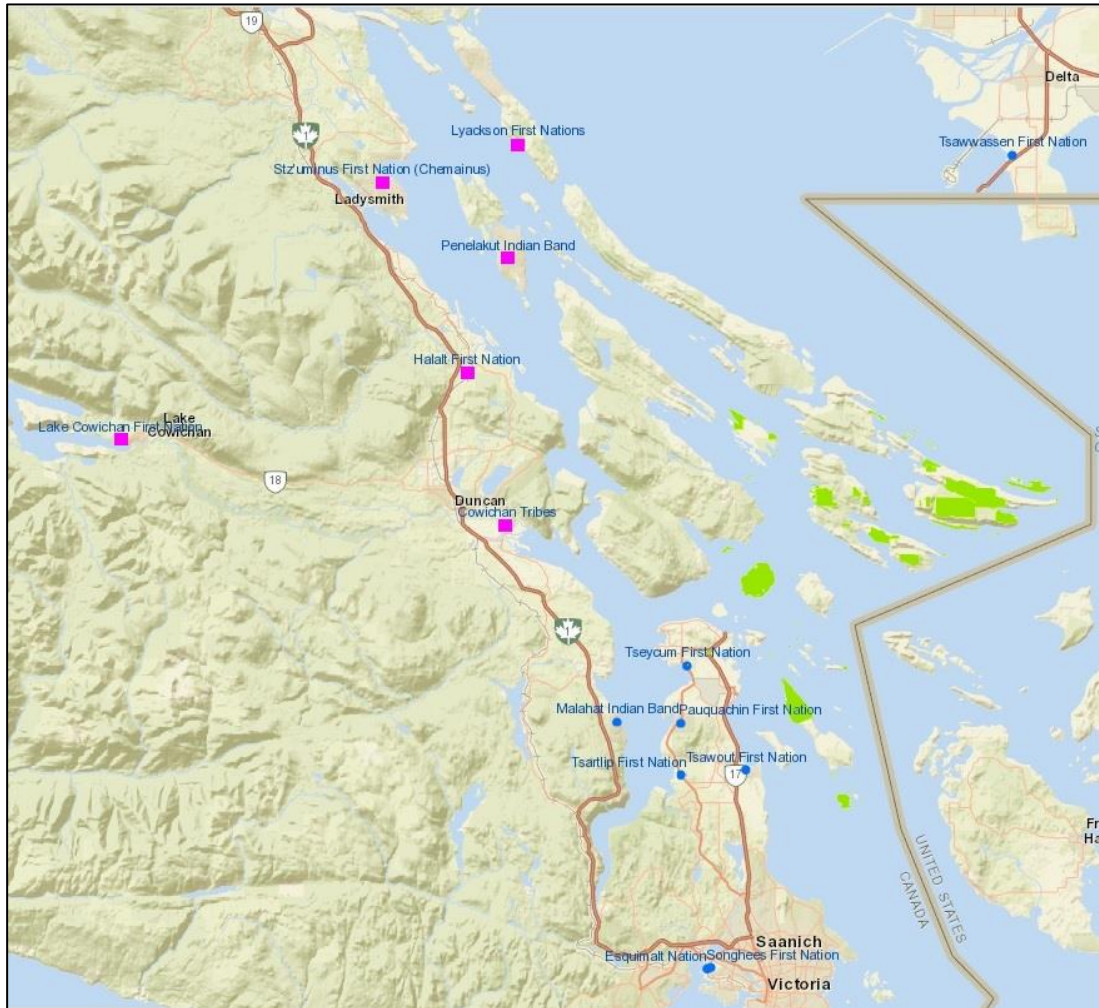
There are limitations for co-management with respect to social cohesion as well. It is acknowledged that the Hul'qumi'num-GINPR Committee represents six different communities, which are not homogenous. While the six First Nations included in this study were brought together through a shared culture and history, and political agenda, the Hul'qumi'num are also fractured along any number of social categories, including gender, age, and class (Egan, 2008). Furthermore, it is assumed that internal disputes and important difference of opinion regarding management arise and persist. It is also assumed that traditional knowledge regarding clam management and restoration that inform the clam garden restoration differ.

Trust and historical circumstances can pose a challenge if knowledge exists but a willingness to share it with parks is not there. Historical tensions and a lack of trust between federal agencies and First Nations communities can pose a challenge for collecting traditional information to inform park operations. For example, previous consultation reports prepared for the GINPR by Hul'qumi'num communities have been reluctant to share sensitive cultural information, due to the poor track record of other agencies (ex: DFO) (HTG Park Committee, 2005). A reluctance to share knowledge with federal agencies due to historical tensions can limit co-management, suggesting that even if social cohesion exists, the broader political context can supersede favourable community characteristics.

### ***Geographic spread of the users***

Hul'qumi'num communities are scattered throughout the Gulf Islands. The six communities represented by the Hul'qumi'num-GINPR Committee have a combined population of over 6,600 people. Of the six groups, the Cowichan Tribes have the highest population, with a registered population of 3,929 people in 2005, with approximately half of the population living on reserves close to the GINPR (HTG, 2005a). Table 6 summarizes the populations of the First Nations represented by HTG and approximate distances to travel to the GINPR. Map 2 shows the geographic spread of the Hul'qumi'num communities in relation to the GINPR.

**Map 2: Hul'qumi'num community locations and the GINPR**



Hul'qumi'num and other First Nations communities surrounding the boundaries of the Gulf Islands National Park Reserve, Map: iMapBC, 2016

**Table 6: Population and geographic spread of Hul'qumi'num communities**

Community	Total population	Approximate distance to GINPR (km)
Cowichan	3929	50
Halalt	202	20
Lake Cowichan	14	43
Lyackson	180	35
Penelakut	787	50
Chemainus	1084	29

Population numbers are from April 2005 (HTG, 2005a, p. 17). Distances were calculated using iMAPBC (2016).



Map 2 shows that the GINPR is not easily accessible without boats. (See also Table 6, showing approximate distances between the communities and the park reserve). This can limit co-management because it can prevent people from accessing beaches and participating in management. For example, limited access to beaches makes it difficult for communities to enforce rules for access and use (Schlager & Ostrom, 1992).

As explained by GINPR employees, Parks Canada facilitates access to the GINPR for community members on a regular basis (Respondent B, Personal communications, April 7, 2016). Visits to beaches in the GINPR happen for various reasons: for restoration activities, for educational purposes, and for harvesting clams. This happens on an *ad hoc* basis. For example, park reserve employees work with the Hul'qumi'num-GINPR Committee to invite community members for clam garden related events like restorations, demonstrations, and cultural activities. GINPR employees regularly communicate with Hul'qumi'num representatives and support traditional harvest, for example, by closing certain areas of the park to the public, or by organizing trips for communities to access the park (Respondent A, Personal communications, August 4, 2015).

Overall, community characteristics both foster and limit co-management. The community has clearly articulated interests for asserting control over resources within the GINPR, with specific objectives for joint decision-making, managing shellfish, and managing cultural heritage (HTG, 2005a; Hul'qumi'num-GINPR Committee, 2005). These established priorities can act as a point for assessing whether co-management is meeting local needs, and shows willingness and capacity for shared decision-making. The outputs from the HTG land use planning process and cultural ties between Hul'qumi'num communities suggest strong interests and identification with shellfish, which leads to incentives for participating in local management (Pinkerton & John, 2008). On the other hand, the geographic spread of Hul'qumi'num communities make accessing the GINPR difficult without boats. This is a barrier for complete co-management because it challenges the ability of communities to enforce rules for access and use (Schlager & Ostrom, 1992).

### **4.3. Nature of the Resource**

This section describes how the characteristics of clams and clam gardens foster incentives for local management, support rule enforcement, and lead to collaborations in a contested territory. In this case study, characteristics that lead to strong incentives for management are foundational for success, because they foster collaboration on enhancement activities, which the initial activities for management of the resource on a larger scale (Pinkerton, 1989). This is because shellfish within the park reserve are ecologically depressed, which means they are not producing fishery scale yields (GINPR, 2012).

This stage of the partnership differs from the bulk of the literature used to elicit propositions on complete co-management, as it is largely focused on fisheries that are already operating (e.g., Pinkerton 1989; Pinkerton, 1992; Rocha & Pinkerton, 2015). This section includes characteristics that foster incentives for management and rule enforcement, with the notion that the latter will become increasingly important as the resource populations recover.

#### **4.3.1. Characteristics that foster incentives for management**

Clams in the GINPR are highly valued and scarce, which leads to strong incentives for local management. Harvesting along the ocean shore is a central part of Hul'qumi'num people's heritage, and clams constitute an important part of Hul'qumi'num economies and culture (HTG, 2005a, p.30). Known as the 'saltwater' people by the Fraser River Salish, the Vancouver Island Hul'qumi'num historically relied heavily on fish, seals, sea lions, and beach foods (Fediuk & Thom, 2003). Shell middens are extensively scattered along the northwest coast, indicating the extent of community reliance on clams (Cannon & Burchell, 2009). Basket cockles, horse clams and butter clams continue to be staple foods and people harvest clams for ceremonial, social and trade purposes (HTG, 2005a, p.30). Shellfish are harvested from February through the summer, and Hul'qumi'num people continue to harvest along beaches within the GINPR (HTG, 2005a, p. 30).

Harvesting clams is the main source of jobs in some Hul'qumi'num communities (HTG, 2005a, p. 30). Clams (and shellfish more broadly) are also highly connected to trade and reciprocity (Suttles, 1987). For example, families often share surplus food with relatives in other villages, in return for gifts of local foods (Suttles, 1987; HTG, 2005a, p. 30). The economic importance of shellfish is also tied to their stationarity and storability; historical records suggest that clam beaches helped foster resilience, by buffering for volatility in other key foods, such as salmon, by providing consistent yields even in times of shortages (Williams, 2006, p.66).

The perceived scarcity of clams is high. This leads to incentives for participation in management, given the high value communities place on the resource (Wade 1986; Ostrom, 2009; Poteete et al., 2010; Oldekop, et al., 2012). Threats to shellfish harvest are substantive, including spillover from surrounding pollution, beach restrictions and privatization (Egan, 2008, p.26). In British Columbia, decades of federal policy favored granting access rights to fish processing corporations over residents in rural communities (Pinkerton & Silver, 2011, p.66). This led to the concentration of fishing permits and licenses, and reduced First Nations' abilities to access shellfish (Pinkerton & Silver, 2011). Additionally, the privatization of beaches for aquaculture, and private land ownership of waterfront properties blocks access to beach sites (HTG, 2005a, p.31).

Pollution threatens the remaining beaches left for harvest. Hul'qumi'num reserves are adjacent to beaches impacted by pollution from aquaculture, sewage discharges, industrial shipping activities, runoff from urban and agricultural areas, or drainage from wildlife areas, which often lead to sanitary closures (HTG, 2005b). Restrictions on accessing lands for terrestrial resources compound the problem; for example, due to private lots owned by forestry companies that put up fences to restrict access, there are limited opportunities to hunt, gather berries and other forest resources, so dependence on ocean resources increases (Egan, 2008, pg. 27).

The combination of strong social, cultural, and economic connections to clams, coupled with encroaching threats on shellfish ecosystems and alienation from beach access leads to strong incentives for management (Fediuk & Thom, 2003; HTG, 2005a). The cultural salience of clam gardens also contributes incentives for local management.

These incentives include the potential to foster youth connections with elders, to support collaboration between other First Nations with concurrent land claims, and to support connections with traditional food sources.

As significant places for cultural practices and places of learning, clam gardens can support connections between elders and youth (Haggan et al., 2006). Historically, while harvesting and processing shellfish and maintaining the health of the garden, elders would share teachings and stories of the tides and local ecology and of the importance of family and community (GINPR, 2013a). The project is set up to facilitate revitalization of certain teachings associated with clam gardens, through community events that bring together elders and youth (GINPR, 2013a).

The clam garden restoration project's ability to foster inter-generational connections is also incentivizing collaboration on lands with contested ownership (Respondent A, Personal communications, August 4, 2015). Despite the fact that nineteen First Nations' traditional territories include the GINPR, communities show widespread support for the project (Respondent B, Personal communications, August 7, 2016). This could be, in part, because restoration activities are generally non-contentious and therefore support co-management (Pinkerton, 2003). However, another reason for the project's positive reception amongst community members is that clam garden is not owned by any single nation (Respondent B, Personal communications, August 7, 2016). Rather, the project partners share ownership of the clam garden, which circumvents potential conflicts in ownership claims (Respondent B, Personal communications, August 7, 2016). Overall, park reserve employees observed that the clam garden restoration project establishes a safe space to begin discussions and foster collaboration, even in a contested territory (Respondent A, Personal communications, August 4, 2015).

Communities that call for improved access to traditional food sources also have incentives to participate in the project (Fediuk & Thom, 2012). The restoration focuses on supporting community connections with traditional food sources (GINPP, 2013a). Research shows that even 'dormant' clam gardens—beaches that have not been harvested for generations—are more productive than unaltered beaches (GINPP,

2013a; Groesbeck et al., 2014). The restoration provides access to clam beaches and includes enhancement activities aiming to improve the health of shellfish in order to support harvest (GINPR, 2013a).

#### **4.3.2. Characteristics that support rule enforcement**

When harvest is visible and confined to localized areas, it is easier to enforce rules on access and use (Schlager & Ostrom, 1992). Because of this, the characteristics of shellfish support local management. Clams are not highly mobile; they are confined to localized populations, which is conducive to monitoring (Pinkerton & John, 2008). Harvesting activity is visible because harvesters must reach the beaches by boat, and so even if harvesters hide, their boats are visible. Clam harvesting is laborious work, which also contributes to its visibility. For clam gardens, rocks must be gathered up from the sandy area, carried along the intertidal area, and piled around to create a wall, which prevents the beach from eroding (Williams, 2006). It is also easy to spot clam harvesters on beaches, since intertidal areas that comprise clam habitat occur in open areas along the shoreline. This is particularly true for clam gardens; when the tide level is low, sandy mudflats emerge along the shoreline as shallowly sloped terraces (Groesbeck, 2013).

The small size of the restoration is favourable to local management because it makes it easier to enforce effective rules on access and harvest (Agrawal, 2002). Indeed, the clam garden restoration is happening on a small scale. Russell Island, one of the chosen locations, is approximately 1 square km in size (GINPR, 2013a). The nature of the sites and clam biology can potentially result in recovery of localized populations (Respondent A, Personal communications, August 4, 2015).

Project participants stress the importance of the clam garden restoration project as an experiment; the success of localized restoration can inform the potential of such structures in restoring intertidal areas on a greater scale (Respondent A, Personal communications, August 4, 2015). This characteristic also supports the aim of the restoration project, which is to recover of localized populations as a proxy for larger scale restoration (Respondent A, Personal communications, August 4, 2015).

Despite favourable characteristics, overlapping jurisdictions over marine resources complicate rule enforcement. Closures for intertidal harvest are officially designated by the Department of Fisheries and Oceans (DFO) and the Canadian Food and Inspection Agency (CFIA). While safety concerns can lead to official closures of beaches in the GINPR for harvest, it is likely that people continue to establish *de facto* harvest rules despite official DFO closures (Schlager & Ostrom, 1992).<sup>2</sup> A history of tense relationships between coastal British Columbia First Nations and DFO has undermined the perceived legitimacy of the federal agency in the eyes of local people (Pinkerton & Silver, 2011; Schlager & Ostrom, 1992). Clams are also highly storable; they can be held for weeks under water, and then delivered during a legal opening as if they had come from a different beach (Pinkerton & John, 2008). The combination of these factors could limit the enforcement of harvesting regulations. Community support and reporting of pre-digging activity could help offset these challenges, by helping achieve successful monitoring and enforcement of harvest regulations (Pinkerton & John, 2008).

Overall, the characteristics of the resource are favourable for co-management. The cultural salience and perceived scarcity of shellfish foster strong incentives for local management. Indeed, community connections to shellfish spurred the idea for the project. The cultural salience of clam gardens further incites community participation, because of the potential to bring together elders and youth, support access to traditional foods and promote cross-cultural understanding. Characteristics of clams are also conducive to rule enforcement. Clam beaches have clear boundaries, which are easily visible (i.e. intertidal areas are prominent features along the shoreline). The size of the resource is small, which supports the experimental nature of the restoration project, and can inform larger scales.

On the other hand, overlapping jurisdictions can pose challenges for harvest regulation. As previously mentioned, it is perhaps too early to analyze the enforcement of harvest regulations at this stage of the project, because the initial stages have not yet

<sup>2</sup> This assumption is also based on HTG documents, which state that GINPR areas are still used for traditional harvest (See for example, Fediuk and Thom, 2003 and the HTG Land Use Plan).

restored clam populations to a level of substantial harvest. Nevertheless, these characteristics are favourable to local management should the restoration efforts prove successful. Therefore, enhancement activities will precede the formulation of rules for enforcement.

## **4.4. Nature of State Agency**

This section describes how the GINPR's governance characteristics support and limit co-management (Carlsson & Berkes, 2005; Berkes, 2009; Pinkerton, 1989). I include the size of the agency, the scale of its mandate and existing leadership. I also discuss how the GINPR leverages issue networks and liaises with other government agencies to support learning and information flow (Carlsson & Berkes, 2005; Pinkerton, 1993).

### **4.4.1. Size of the government agency and scale of mandate**

Co-management operates most favourably when the size of the government bureaucracy is small and its mandate is fairly regional or local, as smaller bureaucracies and localized mandates are more attuned to local management contexts (Noble, 2000). The GINPR keeps abreast of local priorities through engagement and consultation, but the agency is also mandated to operate at regional and national scales (GINPR, 2013b). This institutional structure can pose challenges for co-management, because distant centres of power can be misaligned with local priorities.

The GINPR is one of the smallest national parks in Canada, with a jurisdiction of approximately 34 sq. km. of land and intertidal area spread out over 15 islands and numerous small islets, and approximately 26 sq. km. of marine areas (GINPR, 2013b). The GINPR office is located in Sidney, British Columbia, adjacent to surrounding communities, which include Mayne Island, Saturna Island, North and South Pender Islands, Salt Spring Island Local Trust Areas, and the District of North Saanich (GINPR, 2013b, p. 10). The GINPR's Draft Management Plan (2013) outlines the park's obligations to operate in line with the planning context of the region. This includes

Aboriginal rights, treaties and consultations and the park's responsibilities to residents in neighboring areas (GINPR, 2013b).

Evidence suggests that the GINPR is attuned to local management needs, which supports complete co-management. For example, GINPR employees spent five years working with Hul'qumi'num communities to understand the local priorities for managing resources in the GINPR (Respondent A, personal communications, August 4, 2014). The outputs of those ongoing discussions included a Traditional Use Study, which asserted the connection Coast Salish people have to shellfish, the barriers to harvesting shellfish in the Southern Gulf Islands, and the general ecological condition of intertidal resources in the GINPR (Respondent A, personal communications, August 4, 2014). The culmination of these findings led to the overarching objective to simultaneously support local interests for harvest, meet the park's mandate to improve ecological integrity, and ensure that harvest is safe (Respondent A, personal communications, August 4, 2014).

At the same time, Parks Canada is a central federal agency, with distant centers of power (Martin, 2006). The park reserve's proximity to three major cities, Vancouver, Victoria and Seattle, also means that the park reserve must accommodate stakeholder demands from those regions (GINPR, 2013b, p. 10). This complicates the ability of the park reserve to act solely in support of local needs. While the GINPR's Draft Management Plan (2013) is committed to addressing local planning priorities, it must ultimately be approved by the Minister of the Environment, which can override local management interests (*Canadian National Parks Act*, 2000).

The GINPR's small jurisdiction also poses challenges for rule enforcement on a broader, regional scale. For example, the park is unable to regulate the harmful effects of development beyond the park's borders. The GINPR is located in Canada's most densely populated coastal region, with high commercial activity and urban development in the neighboring cities of Vancouver, Victoria, and Seattle (GINPR, 2013b). External threats include pollution from neighboring urban centers, commercial fishing activities, and transboundary marine transportation (Ayers et al., 2012). Without the ability to influence the spillover of harmful effects, forces outside of the GINPR's management



control could hinder the effectiveness of ecological restoration. This can limit the potential of future harvest.

#### **4.4.2. Leadership**

The GINPR employees coordinating the clam garden restoration project have taken on leadership roles to advance co-management relationships. Parks Canada has dedicated two full-time positions to leading the project (Respondent B, personal communications, April 20, 2016). The positions are responsible for coordinating the restoration work and for collaborating with Hul'qumi'num partners and other communities (Respondent B, personal communications, April 20, 2016). (For a comprehensive description of the activities carried out in the project, see Section 4.5.2). This contributes to complete co-management, as other studies have shown that co-management is more likely to develop if there is an energy centre: a dedicated person or core group who applies consistent pressure to advance the process (Pinkerton, 1989, p. 29).

One of the employees leading the clam garden restoration work is from a Hul'qumi'num community (Respondent B, personal communications, April 20, 2016). This employee is personally invested in the project, with a desire to advance working relationships (Respondent B, personal communications, April 20, 2016). This also supports co-management, as the motivations and attitudes of key individuals can facilitate complete co-management, irrespective of legal backing or formalized power sharing in the arrangement (Pinkerton, 1989, p. 29). This is particularly relevant for the clam garden restoration project, because many activities occur informally, as described in Section 4.5.

#### **4.4.3. Mechanisms to foster organizational learning**

The sections that follow describe ways in which the GINPR liaises with other organizations and government agencies. These processes foster ways to share information, establish creative approaches to problem solving, and legitimize local management concerns and perspectives on management (Berkes, 2009; Pinkerton, 1992; Pinkerton, 1993). Intellectual linkages between First Nations communities,

academics, and parks managers support the emergence of new ideas, and local values to drive actions in the park reserve (Pinkerton, 1993).

The first part of this section describes how the GINPR works within the overlapping authority over shellfish management by the Department of Fisheries and Oceans (DFO) and the Canadian Food and Inspection Agency (CFIA). By providing supplementary water quality monitoring data, the park reserve helps to establish new shellfish harvest openings. This example of problem solving responds to local priorities to improve access to harvest.

The second part of this section describes how the concept of eco-cultural restoration and ultimately the clam garden restoration project were legitimized in the GINPR through the existence of an issue network on clam gardens. Issue networks are groupings of diverse players, with intellectual and emotional commitment to a topic (Hecló, 1978, p. 414). They gain power and influence through their expertise and experience but, rather than controlling a specific program or policy, their main thrust is the quest for more debate and exploration of their respective issue (Hecló, 1978, p. 414). In this case, the Clam Garden Network brought together First Nations, park reserve employees, and researchers to share information and explore new conservation approaches (Hecló, 1978; Pinkerton, 1993).

### ***GINPR bridging information between government agencies***

The GINPR exists in a mosaic of overlapping jurisdictions over marine resources in the Southern Gulf Islands. Because of its vast coastal areas,<sup>3</sup> Parks Canada shares jurisdictions with two other federal agencies: the Department of Fisheries and Oceans (DFO) and the Canadian Food Inspection Agency (CFIA). The overlapping jurisdictions are important for this case study, because the GINPR acts as an intermediary between DFO, CFIA, and local First Nations harvesters. GINPR employees bridge information channels between local harvesters and federal testing agencies (Armitage et al., 2009). This characteristic supports co-management.

<sup>3</sup> The park reserve's jurisdiction extends between 100 and 400 meters into the marine environment (Augustine and Dearden, 2014).

DFO and CFIA jointly administer the Canadian Shellfish Sanitation Program, a federal food safety program that monitors the health of shellfish and establishes openings of subsistence gathering of seafood (CFIA, 2016). Closures for shellfish harvest are done out of public health and safety concerns (DFO, 2016). The CFIA conducts testing and informs DFO on toxin levels for harvest openings (CFIA, 2016). DFO deems it illegal and unsafe to harvest shellfish from a closed area (DFO, 2016).

The GINPR operates on a much more localized level than DFO and CFIA, which have regional mandates. Effectively, GINPR agents are able to supplement testing for shellfish contamination in localized areas throughout the park (Respondent B, Personal communications, August 7, 2016). This helps address community concerns that DFO and CFIA monitoring is ineffective or absent in important areas for harvest (HTG, 2005a, p. 31).

This is also particularly important for the GINPR, with ecologically depressed conditions of shellfish (GINPR, 2013a). The GINPR falls within Area 18-10, where poor monitoring ratings are often below threshold levels deemed safe for harvest (DFO, 2016). As a result, most intertidal areas are closed to shellfish harvesting: within GINPR there are 8 bays which are closed either permanently or seasonally to shellfish harvesting due to unacceptable sanitary conditions and concerns over biotoxins (e.g. paralytic shellfish poisoning) (GINPR, 2013a).

Though testing for such water quality conditions is not a part of GINPR's ecological integrity monitoring program, it can be a significant indicator of intertidal ecosystem conditions in the surrounding region (GINPR, 2012). Therefore, the GINPR employees have an additional incentive to test for shellfish contamination. GINPR employees explained they maintain open lines of communication with CFIA, test localized areas in the park, and request openings if they see clean samples (Respondent B, Personal communications, August 7, 2016). The GINPR conducts testing and sends samples to CFIA for approval. On several occasions, the samples sent in led to openings for shellfish harvest (Respondent B, Personal communications, August 7, 2016).

## **Networks**

GINPR employees explained that one of the reasons this project is getting support from communities is that the park reserve has consulted with them for over five years (Respondent B, Personal communications, April 17, 2016). The GINPR's collaboration with the Clam Garden Network played a key role. The Clam Garden Network is a coalition of First Nations, academics, researchers, and resource managers (Clam Garden Network, 2015). This coalition mobilized interest around clam garden research, which led to the idea of the clam garden restoration in the park reserve (Respondent C, Personal communications, November 21, 2016).

The Clam Garden Network can be understood as an issue network; a group of diverse players, with intellectual and emotional commitment to a topic (Hecló, 1978; p. 414). Co-management scholars show that issue networks can support community priorities by bringing complementary resources to a coalition acting to legitimize policies believed to be superior to the status quo (Pinkerton, 1992, p. 33). The clam garden restoration project demonstrates an issue network in action. It was proposed after the Clam Garden Network brought together expertise and resources, to benefit communities and advance research in a unified way (Respondent C, Personal communications, November 21, 2016). The collaborations supported by the Clam Garden Network led to a conservation approach that is informed by local values (Pinkerton, 1994).

Overall, the characteristics of the state agency contribute to complete co-management, with some limitations. The park reserve has a dedicated leadership for advancing co-management relationships. The park reserve is also part of intellectual networks that foster creative problem solving, flexibility, and adaptability (Berkes, 2009; Pinkerton 1992). Sharing information with other government agencies also supports local priorities by obtaining new harvest openings. On the other hand, the GINPR is unable to regulate regional pollutants that threaten ecosystem integrity in the park reserve. The park reserve is highly susceptible to spillover from pollution, particularly marine pollutants that may compromise the outcomes of eco-cultural restoration.

## 4.5. Nature of the Institutional Arrangement

This section describes the institutional arrangement, i.e., how Parks Canada and the Hul'qumi'num-GINPR Committee establish rules to organize activities, make decisions, and produce outcomes (Ostrom, 1992). This section is divided into three parts, or analytical scales, which focus on the different aspects of the co-management arrangement. The first part takes a broad perspective that considers the distribution of rights, duties, and power in the overarching policy context of the park reserve. This is followed by a narrower focus on the strategic objectives of the GINPR management plan, considering how each objective can support or limit co-management. The third part focuses into the management activities of the clam garden restoration project, outlining where power is shared. The formal (*de jure*) and informal (*de facto*) nature of rights, as well as levels of decision-making power are discussed throughout the section.

### 4.5.1. Structure of rights, duties and power

This section discusses the *constitutional rights*, *collective choice rights*, *de jure* and *de facto* rules, horizontal and vertical power distribution in the current policy context of the GINPR (see full description of these terms in Section 2.5.1). I begin by considering the macro-level sources of power. Vertical power distribution is a limitation to co-management, because it leads to a power imbalance, with a centralized, distant centre of power that is removed from the local context. A power imbalance limits the legitimacy of the federal government to local Indigenous people, risks favouring the priorities of other parks users, and can lead to management actions that disregard the values and knowledge of local people (Clark, Fluker & Risby., 2008; Martin, 2006; Murray & King, 2012).

First Nations in British Columbia are challenging this dominant power structure. They assert horizontal power, stemming from constitutional protection of Aboriginal rights and title. This empowers First Nations to challenge the government's imposition of a top-down governance system. I discuss the tension between horizontal and vertical power.

### ***Constitutional rights stipulating co-management***

Parks Canada exercises vertical power, with a centralized system of governance. The federal Parks Canada office delegates power to the local GINPR office. For example, the *Canadian National Parks Act* is a *de jure* delegation of rights to local Parks Canada branches, giving them power to draft park management plans and priorities. Centralized power rests with the Parks Superintendent, who has veto power over management actions locally (GINPR, 2013b). The Parks Superintendent is accountable to the Minister of the Environment, who exercises authority over national parks across the country (GINPR, 2013b).

At the same time, First Nations hold horizontal power stemming from *constitutional rights* and on-going land claims (Pinkerton, 2003). Therefore, Parks Canada has a legal duty to engage with and accommodate First Nations (*Canadian National Parks Act*, 2000, s. 12). Parks Canada has acknowledged this duty, stressing that the agency considers Indigenous people not as stakeholders but as partners (Parks Canada, 2011). Nevertheless, the agency continues to forestall the exercise of collective choice and *operational rights* in the park, claiming the central role for creating management plans and overseeing operational activities. This is an example of the tension between the vertical and horizontal power structures; Parks Canada is operating in a pre-existing power structure, while First Nations challenge the legitimacy of that power.

Table 7 summarizes the overarching policy framework in the GINPR, i.e., *de jure* policies stipulating co-management. This policy context demonstrates that the federal government holds vertical power in Parks Canada policies and relevant Acts, and that First Nations hold horizontal power, through constitutional protection of rights, legal precedents and treaty agreements. While centralized (vertical) power structures can limit co-management by granting final decision-making authority to the Minister of Environment, a number of *de jure* agreements (stemming from horizontal power) now exist that challenge the federal government's sole authority over lands and waters in the GINPR.

**Table 7: Policy framework for co-management in the Gulf Islands National Park Reserve**

Policy Instrument	Source of power (horizontal or vertical)	Co-management implications
<b>Constitution Act (1982), Section 35 (1)</b>	Horizontal	Recognizes that Indigenous peoples possessed a distinctive political identity, with legal protection by the Canadian system. The Canadian legal system recognizes Aboriginal title as a unique collective right to the use of and jurisdiction over a group's ancestral territories. Aboriginal rights are collective rights, which flow from Indigenous peoples' continued use and occupation of ancestral lands.
<b>Legal precedents</b>	Horizontal	Clarifies the duty to consult with Aboriginal peoples where there is a possibility that a Government activity might adversely affect a potential Aboriginal or treaty right
<b>Treaty negotiations (including pre-treaty interim agreements)</b>	Horizontal	Stipulate the terms of sharing decision-making power in the traditional territories of First Nations governments.
<b>Canadian National Parks Act, Section 12</b>	Vertical	States that Parks Canada must provide for public participation at the local, regional and national levels, including participation by Aboriginal organizations, bodies established under land claim agreements and representatives of park communities.
<b>Park Committee Agreements with First Nations</b>	Horizontal	Outline how Parks Canada shares decisions and management functions in the GINPR with First Nations parks committees. The agreements are subject to terms and conditions of treaties.
<b>Federal laws and Gulf Islands National Park Reserve policies</b>	Vertical	Require Parks Canada to produce a management plan for each national park. The GINPR's 2013 Draft Management Plan emphasizes Coast Salish partnerships as part of planning priorities and key strategies for the park's operations

**Table 7: Policy framework for co-management in the Gulf Islands National Park Reserve (continued)**

Policy Instrument	Source of power (horizontal or vertical)	Co-management implications
<b>Hul'qumi'num Treaty Group Land Use Plan (2005)</b>	Horizontal	Outlines Hul'qumi'num communities' vision for management of land, water and resources in their traditional territories. The Plan outlines priorities and strategies in order to support social, cultural and economic needs of Hul'qumi'num communities.
<b>Clam garden restoration project MOU (20xx)</b>	Vertical	Outlines the partnership between GINPR and the Hul'qum'i'num-Traditional Knowledge Working Group for the clam garden restoration project.

***Operating in a contested space***

As mentioned above, while each Park Committee Agreement outlined in Table 7 is a *de jure* assertion of First Nations' management rights, the process by which these agreements are formalized is still *de facto*. The number of nations, the people involved, and the matters discussed depend on the needs and interests of the parties involved; each First Nations advisory committee has its own respective Memorandum of Understanding that outlines their arrangement (Respondent A, Personal communications, August 4, 2015). Parks Canada explains this arrangement is accommodating the pace and process that is desired by the respective First Nation (Respondent A, Personal communications, August 4, 2015).

The *de facto* process for establishing Park Committee Agreements is partially attributable to the fact that the park reserve is located on contested territories; nineteen First Nations have cultural and historic ties to lands within park boundaries (GINPR, 2013b). In the GINPR, multiple ownership claims, which sometimes contradict one another, make consultation efforts time consuming and costly (Ayers et al., 2012; Gardner, 2009). Furthermore, management actions can be delayed or stalled if they attribute ownership of the land to a particular First Nation's claim over another. For



example, GINPR employees explained that past attempts to include local First Nations languages on park signage were prohibited because place names have a strong association with ownership (Respondent A, Personal communications, August 4, 2015).

While conflicting land claims can complicate co-management in the GINPR, evidence suggests that efforts to promote cooperation and consensus are nevertheless worthwhile. The Hul'qumi'num–GINPR Committee has previously expressed respect and desire to work with other First Nations. For example, the HTG Land Use Plan states, “Saanich must not be left out. They are important to us and share a lot of our values. It’s not our territory; it’s not their territory. It is shared territory” (HTG, 2005a, p. 7). This quote shows that a desire for cooperation exists, despite the contested nature of territories on which the GINPR is located.

### ***GINPR Management Plan: over-arching commitment to partnering with Coast Salish people***

Understanding the overarching planning framework in the GINPR helps to describe how the park reserve’s governance structure supports and limits co-management (Berkes, 2005). This section describes the GINPR Management Plan as it relates to co-management and to the clam garden restoration project. The Plan’s strong emphasis on partnerships with Coast Salish people suggests that Coast Salish visions for management are institutionalized into the park’s operations, which is an important step towards complete co-management (Rocha & Pinkerton, 2015). This section first outlines the policy context for the management plan, and then describes the park reserve’s key planning strategies. Overall, Coast Salish people have a strong presence throughout the strategic objectives, and the visions of Coast Salish people as presented in the Draft Management Plan are similar to the overarching community priorities for co-management. This plan demonstrates that the park is attuned to the local management context and is committed to pursuing collaborative working relationships.

The *Canada National Parks Act (CNPA) (2000)* and the *Parks Canada Agency Act (1998)* require Parks Canada to produce a management plan for each national park to guide the park’s actions for a period of five to ten years (GINPR 2013b, p.1). The management plan describes “how park management will achieve measurable results in

support of the Agency’s mandate, within the context of Agency goals, priorities, resources and policies” (GINPR, 2013b, p. 1). The plan also guides budgeting decisions. The plan itself is therefore a mechanism for accountability, as it frames the problems and articulates how goals will be achieved (Pinkerton & Weinstein, 1995, p. 181). The most recent publically available management plan for the GINPR is the 2013 Draft Management Plan.

The GINPR Management Plan places strong emphasis on partnership and collaboration with Coast Salish people. There are repeated references to collaborative decision-making and partnerships. For example, collaboration with Coast Salish First Nations is listed as the first planning priority of the park (GINPR, 2013b, p. 12). The GINPR’s stated vision begins with a quote from Coast Salish persons participating in the development of the plan:

The Hwulmuhw would like to see our people once again in the islands, like we used to be. Harvesting the mussels and fish that are everywhere. Our people should be park reserve employees and managers, bringing their knowledge to how the place is looked after. Many would be working with visitors and the people who live here and showing them the old and new ways. That personal connection is powerful, because it builds and builds. (GINPR, 2013b, p. 15)

Elder’s stories and quotes are present throughout the document. Reference to collaborative relationships with Coast Salish people are included in each of the key strategies guiding management actions. Four core themes emerge from the key strategies: protecting ecological integrity, presenting cultural and ecological heritage, enhancing visitor experiences, and building meaningful relationships with Coast Salish people. The clam garden restoration project aligns with these key strategies. Below, I discuss each strategy, make connections to the clam garden restoration project, and discuss implications for co-management.

### **Key Strategy 1: Restoring ecological integrity – connecting land, water, and people**

Restoring ecological integrity is the core mandate of Parks Canada (National Parks Act, 2000). Ecological integrity is “a condition that is considered characteristic of the natural region in which all biotic and abiotic component parts of an ecosystem exist, are functioning naturally, and are likely to persist over time,” includes “protecting or

restoring the natural resources and natural processes that allow them to function naturally and persist” (GINPR, 2007, A6-1). Parks Canada’s Guiding Principles state, “protecting ecological integrity and ensuring commemorative integrity take precedence in acquiring, administering and managing heritage places and programs. In every application of this policy this guiding principle is paramount” (Parks Canada, 2009).

The clam garden restoration project demonstrates a new direction in conservation, positing that ecological integrity can be enhanced by simultaneously supporting First Nations traditional uses and ecological restoration (GINPR, 2013a). As discussed in Chapter 1, for most of Parks Canada’s history, the dominant approach to protecting ecological integrity was to restrict human occupation and use. Values like this continue to influence the mandate to protect ecological integrity, for example, through restricted use and “no take zones” in protected areas (Ayers et al., 2012). However, clam garden construction and maintenance involves substantial landscape modifications (Lepofsky et al., 2015). While this seems contrary to ecological integrity goals, empirical evidence shows that the GINPR can protect ecological integrity and support the values and interests of local First Nations at the same time (Augustine & Dearden, 2014, p. 8). Augustine and Dearden (2014) examined the impact of the clam gardens on six key measures of ecological integrity, suggesting that while the practice of maintaining clam gardens can lead to ecological changes, these impacts are minor overall.

As of 2016, this strategy is favourable for co-management. Restoration activities are supporting both the primary mandate of the GINPR and the values and needs of First Nations, who have expressed a desire to enhance the condition of shellfish in their traditional territories.

However, the values and interests of many First Nations are presumably to restore shellfish populations to a scale much larger than a single clam garden, (as outlined in Section 4.2.1). As the regional scale of human modification changes, for example, if restoration activities are successful and First Nations have a stronger presence actively modifying beaches in the GINPR, the primary strategy to protect ecological integrity can become unfavourable to co-management. This is because ecological integrity is primarily defined by scientific terms, not local cultural values. The indicators used to assess ecological integrity, for example, consider species diversity,

species composition and ecosystem processes, amongst others (Woodley, 2010). If increased human presence and use lead to negative impacts on these indicators, conservation and harvest can have conflicting outcomes. Augustine and Dearden (2014) acknowledge this tension, explaining that future ecosystem states will need to be monitored and re-evaluated in the GINPR with changes in the scale of human modification (Augustine & Dearden, 2014, p. 8).

From the perspective of institutional theory, this tension arises from the arrangement of *collective choice* rights. While cultural values may inform the restoration activities, they are ultimately not guiding the assessment of ecological integrity outcomes. For this key strategy, cultural values inform *operational* rights, i.e., activities guiding how to restore the clam gardens, while scientific values inform *collective choice* outcomes, i.e. the evaluation of ecological integrity, which is one of the park's main strategies.

### **Key Strategy 2: Protecting the past for present and future**

The second core strategy of the GINPR relates to the park's mandate to protect natural and cultural heritage. The GINPR Draft Management Plan (2013) describes this strategy as focusing on honouring past traditions of Coast Salish people and other traditions and cultures as they have shaped the landscapes within the GINPR. The Plan states, "Coast Salish First Nations in particular will play an ongoing role in researching and sharing the importance of their cultural resources and guiding their management." (GINPR, 2013b, p. 21).

This strategy has three main objectives: to use scientific and traditional knowledge as a foundation for cultural resource management; to foster connections between the park reserve lands and waters and Coast Salish people; and to protect and manage cultural heritage sites (GINPR, 2013b, p. 21). These objectives contribute to co-management, as they align with First Nations values to assert more control over cultural heritage management in the park reserve (Hul'qumi'num-GINPR Committee, 2005). As detailed in Section 4.2.1, Hul'qumi'num people want to re-claim management rights across their traditional territories. This includes ownership over the way cultural heritage is managed and shared (HTG, 2005a).

GINPR employees explained that the recognition of Coast Salish history is an important element of communicating the park's heritage and unique cultural history (Respondent A, Personal communications, August 4, 2015). GINPR employees see the clam garden restoration project supporting this strategy, by contributing new narratives to the natural and cultural heritage of the park: challenging the myth of "hunter-gatherer" societies, communicating the notion of cultural landscapes, and emphasizing the importance of shellfish to Coast Salish culture (GINPR, 2013a).

### **Key Strategy 3: Enhancing and sharing the Gulf Islands experience**

Visitor experiences are also integral to park management. The GINPR promotes visitation and shares the importance of the Canadian system of protected areas. Priorities of this strategy include collaborating with First Nations and tourism providers to support visitor experiences (GINPR, 2013b, p. 22). Objectives for meeting this strategy include enhancing interpretive materials, including materials that express Coast Salish First Nations Culture, carrying out cross-promotional efforts with First Nations, and hosting community outreach events throughout southern British Columbia. This strategy also includes opportunities for Coast Salish people to benefit from ecotourism businesses and jobs in the park reserve (GINPR, 2013b, p. 23).

Parks Canada employees describe clam gardens as "a focal point to discuss the evolving role of Coast Salish people" and as a "unique opportunity for visitors to engage with and learn about Coast Salish culture" (GINPR, 2013b). As mentioned previously, this strategy aligns with the stated desires of Hul'qumi'num communities to make sure recreational use is appropriately managed, and that Hul'qumi'num people retain the power to vet what messages are communicated to the public (Section 4.2.1.). For complete co-management, retaining *collective choice-rights* to manage what knowledge and narratives are shared with the public, and how sites are protected will be important.

### **Key Strategy 4: Striving Toward Nété tsa mát**

The GINPR explains that Nété tsa mát is a Coast Salish term that means "working together as one." (GINPR, 2013b, p. 24). Park planning documents explain that the park is committed to "continuous dialogue and relationship building," in order to

“build partnerships, develop understanding, and foster learning and trust which will then lead to Nété tsa máat on topics of mutual interest” (GINPR, 2013b).

Objectives for this strategy include collaborations to “manage opportunities and challenges of shared interest” (GINPR, 2013b). This includes promoting cross-cultural understanding for employees, establishing formal guidelines for employment opportunities for Coast Salish people, integrating Coast Salish activities into visitor experiences, and including cultural activities, which are owned, operated and hosted by Coast Salish people in the park reserve (GINPR, 2013b).

While this key strategy is not articulated in the documents analyzed pertaining to the clam garden restoration work, this strategy is an overarching guiding principle for the partnership.

#### **4.5.2. Management activities**

This section describes how Parks Canada and the Hul’qumi’num-GINPR Committee share management activities. It shows that power is shared more equitably in the institutional structure of the clam garden restoration project than at the broader management scale of the park reserve. The Hul’qumi’num Traditional Knowledge Working Group plays a key role (hereafter referred to as the “Working Group”). The Hul’qumi’num-GINPR Committee exercised *collective choice rights* by establishing the Working Group, a group of Hul’qumi’num knowledge holders that guide the eco-cultural restoration and drive management activities to support local priorities.

This section begins by describing the Working Group, followed by the distribution of decision-making power in key management functions of the project. The management activities that follow the description of the Working Group are adapted from Pinkerton and Weinstein (1995), paired with activities described by GINPR employees, and outlined in internal Parks Canada documents describing the project. The distribution of management activities shows how parties share decision-making power on the following categories: planning, policymaking and evaluation, data gathering and analysis, sharing cultural information, and public education.

### ***Traditional Knowledge Working Group***

When the clam garden restoration work began, Parks Canada and the Hul'qumi'num-GINPR Committee formed a Hul'qumi'num Traditional Knowledge Working Group to guide the clam garden restoration project (the "Working Group"). The Working Group consists of members from the Hul'qumi'num-GINPR Committee and additional knowledge holders from the community, including clam diggers, traditional knowledge holders, and other knowledgeable people in the community who have information about language, clams and traditional harvest (Respondent B, Personal communications, April 7, 2016). The Hul'qumi'num-GINPR Committee exercised *collective choice rights* by appointing members to the Working Group.

The Working Group holds ongoing meetings about clam gardens and shellfish more broadly. The Working Group sometimes meets without the presence of GINPR employees to discuss planning priorities (Respondent B, Personal communications, April 20, 2016). As part of their meetings, the group guides all of the restoration activities in the park. This guidance includes setting goals for the project in concert with Parks Canada's own set of goals and objectives (Respondent B, Personal communications, April 20, 2016). These priorities are relayed in meetings between the Working Group, the Hul'qumi'num-GINPR Committee, and GINPR employees. This arrangement is formalized in a Terms of Reference that both parties sign (Respondent B, Personal communications, April 7, 2016).<sup>4</sup>

The Working Group also exercises *collective choice* rights with respect to collecting and sharing cultural knowledge and information. For example, one of the Working Group's main accomplishments, according to Parks employees, is the creation of a report that summarizes the contemporary Indigenous knowledge around clams and shellfish harvest in the region (Respondent B, Personal communications, April 20, 2016). The Working Group created a version exclusively for Hul'qumi'num community members and one to share with GINPR employees.

<sup>4</sup> I was not able to access this document.

### ***Planning, policymaking and evaluation***

The ability to scope problems, objectives and establish project priorities is a *collective choice* right that defines more complete co-management (Pinkerton, 2003). As described in Section 4.2, Hul'qumi'num people expressed a desire to claim more ownership over research and management over cultural resources and heritage in their traditional territories. Hul'qumi'num communities also want to ensure that needs for food and ceremonial uses are met, with a long-term focus on viability of shellfish.

In the clam garden restoration project, parties share decision-making power for planning, policymaking and evaluation. The project was proposed after community consultations. Both parties are carrying out research together and have the right to pursue research interests that are relevant for them, particularly with the establishment of the Working Group. GINPR employees explain that informal mechanisms are important for this element of the work. For example, by helping direct energy where the community is most interested.

GINPR employees explained that they consider both process outcomes and ecological indicators in evaluating the project outcomes. Process outcomes include new relationships, more trust, frequent communication and active collaboration (Berkes 2005). In this respect project targets include partnerships, understanding of restoration activities, new cultural understanding, etc. (GINPR, 2013a). The GINPR also considers ecological indicators for restoration, to gauge whether or not the act of restoring the clam garden is leading to positive ecological outcomes (GINPR, 2013a).

### ***Enforcement of regulations and rules***

In the clam garden restoration project, rules and regulations pertain to access, regulating restoration activities and harvest. Zoning is also relevant to the project, because in order to harvest, an area must fit within the allowable uses. The GINPR predominantly carries out this management function, although the process includes consultation with First Nations. The clam garden restoration site, for example, was selected collaboratively with input from First Nations (Respondent A, Personal communications, August 4, 2015).



GINPR also oversees current enforcement over harvest, by collaborating with the Department of Fisheries and Oceans and the Canadian Food Inspection Agency.

### ***Eco-cultural restoration: data gathering and analysis***

The ability to produce data, analyze data, and dispute varying interpretations is integral for more *collective choice* rights, for example, for helping plan sustainable harvest (Pinkerton, 2003, p. 64). This is especially relevant in the context of the GINPR, because of the community's emphasis on the importance of harvest (see Section 4.2.1).

The restoration project is set up as a scientific experiment, that uses a "learning by doing" feedback approach to inform subsequent actions. For instance, both parties contribute to data collection, interpretation of information and both parties own the data collected. The Working Group guides all restoration work, informing how to restore the clam garden (for example, where to dig, how to turn over the beach), and the GINPR employees provide equipment for ecological monitoring. In this respect, local knowledge and experience have equal status with experts and scientific knowledge.

Through shared responsibilities in data gathering and analysis, both parties have gained valuable information for their respective priorities. Ecological monitoring at the clam garden site is supporting the park's mandate to promote ecological integrity, while the Working Group collected contemporary Indigenous knowledge around shellfish harvest (Respondent B, Personal communications, April 20, 2016). As described above, the Working Group retains ownership of the cultural information. GINPR employees explained that the Hul'qumi'num-GINPR Committee has the right to access ecological data (Respondent B, Personal communications, April 20, 2016). This will be important to maintain to support community capacity to exercise higher level rights, such as harvest planning (Pinkerton, 2003, p. 64).

Another important element of this management function is how co-managers share the costs incurred for data gathering and analysis. Historically in British Columbia, both federal and provincial governments have downloaded testing costs onto communities in the privatization of clam fisheries (Pinkerton and Silver, 2011). In this project, while both parties share *operational rights* and duties, the GINPR is bearing

many of the costs. For example, the GINPR employees carries out the operational duties, like testing, providing equipment and transportation to the sites.

### ***Eco-cultural restoration: sharing cultural information***

Sharing cultural information includes activities to facilitate shellfish knowledge and language revitalization. These activities also support connections between youth and elders. GINPR employees explain that this is an iterative, informal process driven by community priorities (Respondent B, Personal communications, April 20, 2016). Employees explained they “go where there is energy,” taking cue from communities’ enthusiasm and participation as signalling where to focus efforts (Respondent B, Personal communications, April 20, 2016). A GINPR employee working closely working with the Hul’qumi’num-GINPR Committee explained:

In this collaboration, it’s important to leave space for things to happen organically. I think it’s a bit of a compromise. We have targets that we have to meet. We have objectives and terms of reference. It’s not that the work is not guided. Some of the targets are flexible enough that we can meet them in a variety of ways. (Respondent B, Personal communications, April 20, 2016).

For example, there is strong interest among the Hul’qumi’num communities to revitalize the Hul’qumi’num language. As such, the Working Group explained that language must be a key component of the restoration. The GINPR employees do not have formal objectives to reach specific outcomes, nor established priorities for how to guide Hul’qumi’num language related activities. The GINPR employees therefore defer to the Working Group. For example, the Hul’qumi’num-GINPR Committee expressed interest in creating an educational product that can be used by communities to highlight the different species of shellfish harvested and explain why they are important to the ecology of the region, using the Hul’qumi’num language. In this respect, the Hul’qumi’num-GINPR Committee holds *collective choice rights*.

This cultural component of the restoration project is inherently part of the ecological monitoring and data collection. For example, on one occasion, a GINPR employee recalled that after digging clams on the beach, the group brought all of the species together by the fire to measure them for the ecological monitoring component of the work (Respondent B, Personal communications, April 20, 2016). The group began

measuring and identifying all of the species in the Hul'qumi'num language (Respondent B, Personal communications, April 20, 2016). This example demonstrates that the project is supporting broader efforts to revitalize the Hul'qumi'num language, which is important for Hul'qumi'num communities (HTG, 2002; HTG, 2005a).

The GINPR employees explain that the project has supported continued efforts to build relationships between the GINPR and Hul'qumi'num communities. Community events, such as feasts, have been especially meaningful for building relationships and celebrating the work to date. The feasts took place in several First Nations communities. They included cooking, traditional dancers, storytelling, and sharing experiences from the clam garden work. During the feasts, teachings of reciprocity were also raised in the context of thanking community volunteers for their participation in the project (Respondent B, Personal communications, April 20, 2016).

Evidence that the project has improved relationships is that other communities are interested in becoming involved. GINPR employees explain there are over 200 people participating in the project (Respondent B, Personal communications, April 20, 2016). Other First Nation communities have contacted the GINPR with interest in conducting similar work. The GINPR is currently exploring ways of carrying on the work with new partnerships (Respondent B, Personal communications, April 20, 2016). This is consistent with Pinkerton (1989), who found the relationships between people in the communities themselves can become stronger by participating in enhancement activities (Pinkerton, 1989, p. 11).

The eco-cultural restoration is also focused on connecting elders and youth. For example, through partnerships with surrounding public and tribal schools, the GINPR hosted several youth events at the clam garden site. Science and culture camps brought youth and elders together with scientists to combine learning about intertidal ecology with traditional teachings and storytelling about the clam gardens (Respondent B, Personal communications, April 20, 2016). During clam garden events, the volunteers and community members often share stories about their connections to land. For example, one of the participants shared teachings associated with cedar harvest and her experiences harvesting cedar (Parks Canada, 2015).

## ***Public education***

Public education activities support “Key Strategy 3” of the GINPR Management Plan, “Enhancing and sharing the Gulf Islands experience,” with interpretive information about the GINPR’s heritage. For example, parks employees held a ‘clam garden Coast Salish culture day’ on Sidney Island, where GINPR headquarters is located. The event was open to the public as a family event, which highlighted the restoration work happening at the park. At the event, elders spoke about the importance of clam gardens, Coast Salish dancers performed, and people ate Coast Salish foods, including shellfish (Respondent B, Personal communications, April 20, 2016). The event also included beach singing and ecological activities (Respondent B, Personal communications, April 20, 2016).

Another example of public outreach is the coastal naturalist partnership that GINPR has with BC Ferries. The program invites a naturalist to board ferry sailings and hold presentations about the natural and cultural history of the surrounding areas to the general public. The GINPR led presentations on clam gardens and the importance of Coast Salish culture and knowledge (Respondent B, Personal communications, April 20, 2016).

Table 8 summarizes the management activities in the clam garden restoration work, to show how decision-making responsibility is shared between Parks Canada and the Hul’qumi’num-GINPR Committee.

**Table 8: Summary of shared decision-making in the clam garden restoration project**

Category of activities	Management Functions	Rights and duties in practice, how decision-making is shared
<p><b>Planning, policymaking and evaluation</b></p>	<p>Scoping problems and Setting objectives Long range planning Research Forming project partnerships</p>	<p>Parties share right/duty to scope problems and objectives:</p> <ul style="list-style-type: none"> <li>• GINPR employees proposed the project, with approval from the Hul'qumi'num-GINPR Committee.</li> </ul> <p>Right/duty to do long range planning:</p> <ul style="list-style-type: none"> <li>• GINPR employees create a long-range plan with input and approval of the Hul'qumi'num-GINPR Committee</li> </ul> <p>Right to research key questions affecting community values:</p> <ul style="list-style-type: none"> <li>• GINPR leads research activities, such as scoping problems and obtaining input from the Hul'qumi'num-GINPR Committee.</li> <li>• GINPR facilitates research partnerships</li> <li>• Hul'qumi'num-GINPR Committee has right to carry out research: The Working Group completed a year-long study about traditional knowledge on clam harvest.</li> </ul> <p>Right/duty to educate own and larger community re problems</p> <ul style="list-style-type: none"> <li>• The Hul'qumi'num-GINPR Committee chooses what information to share with GINPR.</li> <li>• GINPR cannot share information with public unless approved by Hul'qumi'num-GINPR Committee</li> </ul> <p>Right to establish project priorities</p> <ul style="list-style-type: none"> <li>• Parties establish priorities based on consensus</li> </ul>

**Table 8: Summary of shared decision-making in the clam garden restoration project (continued)**

Category of activities	Management Functions	Rights and duties in practice, how decision-making is shared
<p><b>Enforcement of regulations and rules</b></p>	<p>Implementation and enforcement</p>	<p>Right/duty to create and enforce rules:</p> <p>Re: access (zoning and activities permitted):</p> <ul style="list-style-type: none"> <li>• GINPR employees enforces zoning rules</li> </ul> <p>Re: harvest (amount harvested, location of harvest, timing of harvest, who harvests)</p> <ul style="list-style-type: none"> <li>• Hul'qumi'num-GINPR Committee has constitutional harvest rights</li> <li>• GINPR employees works with other resource management agencies (e.g. DFO, CFIA), to set-up testing and openings</li> <li>• GINPR employees carry out testing, sets up openings</li> <li>• GINPR employees provide transportation to beaches</li> </ul> <p>Re: other (ex: habitat damage)</p> <ul style="list-style-type: none"> <li>• GINPR employees enforce rules on habitat damage</li> </ul>
<p><b>Data gathering and analysis</b></p>	<p>Monitoring habitat</p> <p>Working with other resource management agencies (e.g. DFO, CFIA) on cross-boundary biodiversity protection</p> <p>Monitoring condition of clams</p> <p>Data gathering and analysis</p> <p>Restoration</p> <p>Harvest oversight</p>	<p>Right to access government information:</p> <ul style="list-style-type: none"> <li>• Both parties can access government information</li> </ul> <p>Right to collect own information</p> <ul style="list-style-type: none"> <li>• Both parties can collect own information</li> </ul> <p>Right to interpret information in light of local knowledge</p> <ul style="list-style-type: none"> <li>• Both parties have right to interpret information</li> </ul> <p>Right/duty to enhance or restore:</p> <ul style="list-style-type: none"> <li>• Both parties participate in restoration</li> <li>• The GINPR provides scientific capacity, the Working Group contributes traditional knowledge to inform restoration work</li> </ul>

**Table 8: Summary of shared decision-making in the clam garden restoration project (continued)**

Category of activities	Management Functions	Rights and duties in practice, how decision-making is shared
<p><b>Sharing cultural information</b></p>	<p>Coordinating community events</p> <p>First Nations, organizations, and others support restoration efforts – involvement of external groups, volunteer opportunities</p> <p>Gathering traditional knowledge</p>	<p>Coordinating events:</p> <ul style="list-style-type: none"> <li>• GINPR employees coordinate community events with Hul'qumi'num-GINPR Committee</li> <li>• Both parties participate in events</li> <li>• Parties work together to establish partnerships, involve external groups</li> </ul> <p>Right to access information</p> <ul style="list-style-type: none"> <li>• Both parties can access government information</li> <li>• The Working Group determines what traditional knowledge GINPR employees can access</li> </ul> <p>Right to collect own information</p> <ul style="list-style-type: none"> <li>• Both parties can collect own information</li> </ul> <p>Right to interpret information in light of local knowledge</p> <ul style="list-style-type: none"> <li>• Both parties have right to interpret information</li> </ul>
<p><b>Public education</b></p>	<p>Publicity</p> <p>Visitor education</p> <p>Heritage information</p>	<p>Right to determine what information is shared with the public</p> <ul style="list-style-type: none"> <li>• Parties work together</li> <li>• Hul'qumi'num-GINPR Committee decides what is shared</li> </ul> <p>Right to shape what messages are communicated to the public:</p> <ul style="list-style-type: none"> <li>• GINPR employees shapes messaging</li> </ul>

In summary, for the broader scale of the GINPR as a whole, favourable conditions for co-management include *constitutional* protection of Aboriginal rights and title and *de jure* management agreements. The GINPR has clearly articulated a commitment to working collaboratively with Coast Salish people in the key strategic areas of parks management. Conditions limiting co-management mirror those of the co-management limitations discussed in Section 1.1; in the broad management context of the GINPR, Parks Canada exercises the majority of *collective choice rights*, with a centralized power structure. A high number of potentially conflicting land claims in the Southern Gulf Islands complicate the process.

The institutional arrangement for the clam garden restoration project is different from the broader management context in that First Nations have a stronger ability to influence *collective choice rights*. Therefore, at the more micro scale of the clam garden restoration project, the institutional arrangement reflects a more complete co-management relationship. The arrangement has *de jure, collective choice rights*, for example, in the Memorandum of Understanding for the clam garden restoration work. This is also reflected, for example, in the process of selecting the Hul'qumi'num Traditional Knowledge Working Group. The Hul'qumi'num-GINPR Committee selected the group's membership and has guided the group's operations. The Working Group also retains *collective choice rights* over data collection and research priorities.

Analyzing the management activities of restoration project helps focus on elements of the partnership with more "complete" co-management. Overall, the GINPR remains the primary party coordinating and facilitating project activities, while Hul'qumi'num knowledge and guidance are foundational to the work. For example, the GINPR coordinates data collection and restoration activities, though the activities are all informed by community interests and guided by the Working Group. The GINPR coordinates community events, though both parties decide what information is communicated with the public. In this respect, an informal process helps direct energy where the community wants.



Nevertheless, some limitations to co-management still exist. Ecological integrity, the guiding strategy for the park, is still evaluated based on scientific principles, not measures identified by the Hul'qumi'num-GINPR Committee. This is a limitation for co-management because ecological integrity and harvest have the potential to be in conflict with one another under a strictly scientific definition. These values, while seemingly reconciled at this stage of restoration, will need to be formally shared in a management arrangement if the partnership is going to meet desired community goals for re-claiming harvest of shellfish in the GINPR.

## **Chapter 5. Discussion**

### **5.1. What factors contribute to and limit complete co-management in the Gulf Island National Park Reserve?**

Factors contributing to co-management exist in every section analyzed, but the arrangement is still “incomplete.” Factors contributing to complete co-management include strong incentives for local management, mechanisms to support organizational learning, and shared management functions, through which Hul'qumi'num communities control their own management priorities. These shared management functions include scoping problems and research priorities, and activities such as data gathering, data analysis, and sharing cultural information. Factors limiting complete co-management include overlapping jurisdictions, a history of conflict, and difficult access to beaches. These limiting factors can complicate rule enforcement and can lead to lack of perceived local legitimacy.

Table 9 summarizes the factors contributing to and limiting complete co-management. It includes a summary from each section of the analytical framework: characteristics of the historical context, the community, the resource, the state agency, and the institutional arrangement. The table includes the analyses for the micro perspective of the clam garden restoration project, and the broader co-management context in the park reserve.

**Table 9: Summary of factors that contribute to and limit complete co-management**

	<b>Contribute to CM</b>	<b>Limit CM</b>
<b>Historical Context</b>	<b>GINPR Management Context:</b> <ul style="list-style-type: none"> <li>Ongoing consultations since the establishment of the GINPR</li> </ul>	<b>GINPR Management Context:</b> <ul style="list-style-type: none"> <li>Tension and bitter memories of colonization, longstanding dispute over territories in British Columbia mean general distrust of federal agencies</li> <li>Evidence that some communities were resentful of the way the GINPR was established and skeptical of positive outcomes</li> </ul>
<b>Historical Context</b>	<b>Clam garden project:</b> <ul style="list-style-type: none"> <li>Project responsive to community needs</li> <li>Existence of clam garden network</li> </ul>	<b>Clam garden project:</b> <ul style="list-style-type: none"> <li>N/A</li> </ul>
<b>Nature of the Community</b>	<b>GINPR Management Context:</b> <ul style="list-style-type: none"> <li>HTG organized, cohesive ties, outlined community commitments to land-use in the GINPR territories</li> <li>Desire and willingness to undertake joint decision-making</li> </ul>	<b>GINPR Management Context:</b> <ul style="list-style-type: none"> <li>Large group size, scattered communities around GINPR boundaries</li> <li>Difficulty accessing park because islands are scattered and boat access is low</li> <li>Possible reluctance to share knowledge with GINPR</li> </ul>
<b>Nature of the Community</b>	<b>Clam garden project:</b> <ul style="list-style-type: none"> <li>Community knowledge of clam digging and restoration</li> <li>Parks opens access for community with regular trips to beaches</li> <li>Increasing participation in the project (200+ members from Wasanec and Hul'qumi'num) (Respondent B, Personal communications, April 20, 2016)</li> </ul>	<b>Clam garden project:</b> <ul style="list-style-type: none"> <li>Large group size, scattered communities around GINPR boundaries</li> <li>Difficulty accessing park because islands are scattered and boat access is low</li> <li>Possible reluctance to share knowledge with GINPR</li> </ul>

**Table 9: Summary of factors that contribute to and limit complete co-management (continued)**

	Contribute to CM	Limit CM
<b>Nature of the Resources</b>	<p><b>Clam garden project:</b></p> <ul style="list-style-type: none"> <li>Well-defined, visible boundaries of beaches, clam habitat</li> <li>Existing local knowledge with respect to sites, visible harvesting activity</li> <li>Non-mobility, stationarity can result in possible recovery of localized populations</li> <li>High cultural salience</li> </ul>	<p><b>Clam garden project:</b></p> <ul style="list-style-type: none"> <li>High storability, low spoilability (tied to enforcement and compliance)</li> <li>Often closures to fishery as a result of high contamination levels</li> <li>Depressed ecological condition</li> </ul>
<b>Nature of State Agencies</b>	<p><b>GINPR Management Context:</b></p> <ul style="list-style-type: none"> <li>Regional mandate, small bureaucracy</li> <li>Attuned to local management needs</li> <li>Dedicated leadership to advancing co-management relationships</li> <li>Existing mechanisms to support organizational learning</li> </ul>	<p><b>GINPR Management Context:</b></p> <ul style="list-style-type: none"> <li>Small jurisdiction, no control over spillover from neighboring development and urbanization</li> </ul>
<b>Nature of State Agencies</b>	<p><b>Clam garden project:</b></p> <ul style="list-style-type: none"> <li>Network connections with learning organizations, ability to introduce new management paradigm</li> <li>Ability to liaise with other federal agencies and influence harvest openings</li> </ul>	<p><b>Clam garden project:</b></p> <ul style="list-style-type: none"> <li>Small jurisdiction, no control over spillover from neighboring development and urbanization</li> </ul>
<b>Nature of the CM Arrangement</b>	<p><b>GINPR Management Context:</b></p> <ul style="list-style-type: none"> <li>Legal basis for Aboriginal rights at the constitutional level ensures <i>de jure</i> access and management rights</li> <li>Policy context stipulates collaboration with First Nations</li> </ul>	<p><b>GINPR Management Context:</b></p> <ul style="list-style-type: none"> <li>State agency exercises more <i>collective choice rights</i></li> <li>Some <i>de facto</i> application of consultation mandate means that certain rights are less secure than if they were outlined formally</li> </ul>

**Table 9: Summary of factors that contribute to and limit complete co-management (continued)**

	Contribute to CM	Limit CM
<b>Nature of the CM Arrangement</b>	<p><b>Clam garden project:</b></p> <ul style="list-style-type: none"> <li>• Ability to influence <i>collective choice</i> rights, informally</li> <li>• Formalized, legal, multi-year collaboration via Terms of Reference with Traditional Knowledge working groups, community has <i>collective choice rights</i> for framing the TOR</li> <li>• Informal arrangement supports flexibility, relationship building, mutual benefits for parties involved</li> </ul>	<p><b>Clam garden project:</b></p> <ul style="list-style-type: none"> <li>• State agency retains most <i>collective choice</i> rights for setting priorities and tracking outcomes</li> <li>• Ex: State agency shapes key strategies of the project at the <i>collective choice</i> level, has mandate that focuses on other user groups as well, can set interpretation of ecological integrity and active management</li> </ul>

The analysis revealed that Hul'qumi'num communities have clear incentives for co-management and are willing to participate in joint management. Communities have asserted their priorities for controlling resources, with specific objectives for joint decision-making, for managing shellfish, and for managing cultural heritage (HTG, 2005a; Hul'qumi'num-GINPR Committee, 2005). This is significant, given a complex political landscape, with longstanding conflict over ownership, which has complicated collaborative efforts in the past (Ayers et al., 2012). The combination of Hul'qumi'num communities' social, cultural, and economic ties to shellfish, threats to shellfish ecosystems, and alienation from beach access, leads to strong incentives for management (Fediuk & Thom, 2003; HTG, 2005a; Hul'qumi'num-GINPR Committee, 2005).

The park reserve is demonstrating leadership and the ability to leverage network connections to foster organizational learning, and solve complex problems. This is evident, for example, in the GINPR's involvement with the Clam Garden Network, which helped legitimize new conservation approaches that recognize conservation must prioritize both natural and cultural values to be successful (Augustine & Dearden, 2014, p.311; Pinkerton, 1992, p. 333). The clam garden restoration has the potential to support community priorities beyond conservation outcomes, such as food security, and cultural revitalization.

In this respect, the clam garden restoration includes several management activities that allocate *collective choice* rights equitably. These activities are scoping problems and research priorities, data collection, and monitoring. The establishment of the Hul'qumi'num Traditional Knowledge Working Group led to the collection of contemporary Indigenous knowledge around clams and shellfish harvest in the region, which is owned by the communities themselves (Respondent B, Personal communications, April 20, 2016). Monitoring activities, (i.e., shellfish monitoring and supplementary water quality testing), led to harvest openings and created a space for traditional ecological knowledge and science to work together. This is favourable to co-management, as shown by other studies that have found traditional ecological knowledge and scientific monitoring can support customary Indigenous harvest in conservation areas (Moller et al., 2004). Furthermore, the ability to produce data, analyze data, and dispute varying interpretations is integral for more *collective choice* rights, for example, for helping plan sustainable harvest (Pinkerton, 2003, p. 64).

However, co-management is also limited when considering the project's prospects for reinstating long-term harvest—a significant issue for Hul'qumi'num communities (HTG, 2005a, p.10). While foundational steps for harvest are in place, (e.g. legal requirements to allow traditional harvest, activities to improve shellfish habitat), it is unclear what measures support long-term human presence and modification of landscapes at scales needed for food fisheries. For instance, it remains unclear how much harvest and modification to intertidal areas would be permissible, if shellfish resources were to recover to higher population levels.

This issue connects to the broader institutional structure and values driving Parks Canada policies. As long as ecological integrity, the primary mandate of Parks Canada, is defined solely in scientific terms, it will risk meeting resistance from community members who are opposed to conservation practices that restrict human access and use (Ayers et al., 2012). Securing *collective choice rights* for Hul'qumi'num people in parks management beyond the restoration activities would establish a mechanism to work through such challenges.

Overlapping federal jurisdictions, which complicate rule enforcement also limit co-management (i.e., closures for intertidal harvest are officially designated by the Department of Fisheries and Oceans (DFO) and the Canadian Food and Inspection Agency). Histories of conflict and resentment of DFO policies that restricted beach access and harvest rights can lead to a lack of perceived legitimacy of the state at the local level (Pinkerton & Silver, 2011). When local people question the legitimacy of the state, they often develop *de facto* management rules that circumvent federal policies (Pinkerton & John, 2008; Schlager & Ostrom, 1992). Community support and reporting of pre-digging activity could help offset these challenges, by helping achieve successful monitoring and enforcement of harvest regulations (Pinkerton & John, 2008).

As discussed at the onset of this study, co-management across Canadian national parks is incomplete because of an overarching power imbalance between the federal government and local First Nations. The GINPR is limited by these broader constraints; Hul'qumi'num communities have some *collective choice* rights, but currently do not have formalized power to plan, regulate and research long-term priorities like harvest. However, this case study demonstrates that incomplete co-management can still add value. The clam garden restoration is fostering the creation of foundational steps for co-management by establishing working relationships between Parks Canada and Hul'qumi'num communities that are driving a local research agenda.

## **5.2. Co-management propositions**

The following co-management propositions stem from the combination of the characteristics described above. Overall, this case study reveals that an institutional arrangement can support co-management without a formalized agreement to share power. Informal arrangements are favourable to co-management because they enable the flexibility to experiment with conservation approaches that are appropriate for the local social and ecological context (Augustine & Dearden, 2014, p.311). In the GINPR, informal arrangements supported the idea of the clam garden restoration, which is a community-driven approach for conservation, informed by First Nations values. The clam garden restoration project responds to the management priorities of both the state agency and Hul'qumi'num community members. This is a form of incomplete co-

management that has the potential to expand to more equitable partnerships in the future by building relationships, shared capacity, and cross-cultural understanding.

Nevertheless, co-management will be limited until First Nations have formalized *collective choice* rights in key management functions. This is because *de facto* management rights are less secure (Schlager & Ostrom, 1992, p. 254). This finding is consistent with other research showing that even in cases where leadership exists and management takes a wide interpretation of the park's mandate, central structures of power propagate a power imbalance (Murray & King, 2012). In the GINPR, co-management will be limited until communities have formalized *collective choice* rights to pursue priorities like long-term harvest and control over cultural heritage.

**An institutional and historical context that mandates engagement and consultation via *de jure* rights is important for complete co-management.**

The federal government's asserted authority over lands in the park reserve forestalled Indigenous people exercising their *constitutional rights*. Until those rights were mobilized via court cases and formal recognition of Aboriginal rights and title, the federal government continued to exercise *collective choice rights*. Formal recognition of Aboriginal rights and title was instrumental for incentivizing new relationships between Parks Canada and Indigenous people, for example, in formalizing the National Park Reserve status and for negotiating cooperative management agreements.

In the GINPR, the recognition of *constitutional rights* lay grounds for sharing power and responsibility. The formal establishment of the Hul'qumi'num-GINPR Committee was foundational for the co-management relationship. The Committee acted as the gateway for First Nations communities to articulate key priorities for management, and legitimized activities that dedicated resources to address First Nations' concerns

**Informal arrangements can foster creativity and direct energy where the community wants.**

An informal, *de facto*, arrangement is adaptive to community needs because the terms for establishing rights, duties, rules and benefits can evolve as the parties solve problems together, develop trust, and build working relationships (Berkes, 2009;



Pinkerton 1989, pp.27-29). In the GINPR, there is *de facto* flexibility on how to interpret *de jure* rules. Effectively, informal arrangements create space to assert local values. For instance, the park reserve's *de jure* key strategies are to enhance ecological integrity, manage heritage, enhance visitor experiences, and improve working relationships with Coast Salish nations (GINPR, 2013b, p. 19). The idea of the clam garden restoration arose from *de facto*, informal arrangements, which led to the Hul'qumi'num-GINPR Committee identifying community priorities. The clam garden restoration project is a creative strategy to address the *de jure* mandate of the park.

This flexibility in institutional arrangements can create space for local knowledge and scientific knowledge to work together. For example, in the clam garden restoration project, flexibility in meeting the project outcomes created space to focus on language revitalization and direct a community driven research agenda. When communities are empowered to manage resources using local values, the arrangement leads to stronger local support, enthusiasm for participation and a sense of stewardship (Pinkerton, 1994, p. 2374). This contributes to complete co-management in the long-term.

**A form of incomplete co-management may be necessary to establish first, so that complete co-management can develop in the future**

Co-management is about relationships (Natcher et al., 2005). While formal rules to support co-management and share decision-making power are important, benefits of co-management materialize when an informal working application of trust and cooperation exists (Pinkerton, 1989, pp. 8, 30). In this respect, it is important to establish mechanisms for building trust, cooperation, and shared meanings in the process of working towards co-management. Eco-cultural restoration can provide foundational steps for co-management, which have the potential to expand to other management functions in later stages (Pinkerton, 1989, p. 11).

In the GINPR, the application of a conservation practice that inherently encompasses human presence and modification of landscapes is creating new meanings for conservation. Clam gardens challenge the “pristine wilderness” ideal that isolates protected areas from human occupation and use (Lepofsky et al., 2015). This

supports First Nations' assertion of the inextricable connections between communities and resources in their traditional territories.

The expression of First Nations' values in the clam garden restoration, which is legitimized by a federal agency, can foster new meanings for conservation (Pinkerton, 1993). As an agency positioned to promote Canada's national heritage, this is significant. By bringing First Nations' traditional management practices back into parks landscapes, GINPR can create new symbolic associations with nature (Osborne, 2006; Cronon, 1996). This has the potential to foster new narratives, which challenge the notion of pristine wilderness, celebrate the sophistication of First Nations' knowledge, and acknowledge the importance of maintaining connections to traditional resources.

Evidence suggests relationships are strengthening between Parks Canada and Hul'qumi'num communities, through the emergence of new meanings around conservation. According to GINPR employees, the fact that communities are expressing interest to be involved is proof of strengthening relationships and that communities are seeing benefits from this project (Respondent B, Personal communications, April 20, 2016). Hul'qumi'num community members have also spoken positively about the project. Knowledge holder, Jared Williams, who participated in the restoration explained:

After all these generations of denying that we had agriculture and had this sustainability, we've started to lead and have evidence that we had all of these systems in place pre-contact and to have a large agency like Parks Canada designing a program, bringing TEK and western science to discuss that, it's the beginning of a giant, unifying discussion that should have happened hundreds of years ago. I'm really happy that it's happening now and that I am able to be a part of it. – Jared Williams, Hul'qumi'num knowledge holder (Parks Canada, 2015)

**Conservation rooted in community values bridges tensions between vertical and horizontal power structures. Co-management is more likely to succeed if informed by community wisdom and knowledge about its past and present connections with nature.**

The case study reveals a tension between vertical and horizontal power structures in the co-management context between First Nations and the federal government. As previously discussed, Parks Canada's vertical power distribution is a

limitation to co- management, because it leads to a centralized, distant center of power, which is removed from the local context. As the clam garden restoration project demonstrates, First Nations are challenging the legitimacy of that power. Hul'qumi'num communities hold horizontal power, rooted in their co-management claim, which stems from the constitutional protection of Aboriginal rights and title. This creates a space for *de facto* institutional arrangements that are responsive to local needs.

In the context of the GINPR, Hul'qumi'num communities asserted local values to drive conservation to support local priorities. Intellectual linkages formed by the Clam Garden Network mobilized new approaches that challenge the central power structure to apply different values than those currently used (Pinkerton, 1993). The clam garden restoration project arose in response to local demands to restore shellfish and support community connections to traditional territories. The application of a conservation approach that places human presence and modification of landscapes at the forefront of ecological integrity is an expression of local values and preferences.

This project is a model for other co-management arrangements. Clam gardens are demonstrating the importance of the connection First Nations have to their traditional lands and resources (Lepofsky et al., 2015). The lesson for co-management is the importance of cultural continuity for the well-being of local people. This is consistent with research showing that protecting community connections to their traditional resources supports cultural continuity, and a sense of identity, which are vital for adding meaning to life and nurturing health and well-being in Indigenous communities (Michael & Lalonde, 2009). For co-management to be successful, it is important for government agencies to respond to and respect community knowledge and wisdom regarding community needs, rather than imposing “top-down” solutions.

**Both partners must have formalized *collective choice* rights in key management areas for sustained co-management**

Co-management will be limited unless First Nations have formalized, *collective choice* rights in key management areas. *De jure* management rights are more secure than *de facto* rights (Schlager & Ostrom, 1992). For example, *de jure* recognition of

rights protects them from changes in leadership or a loss in the political will to collaborate (Pinkerton, 1992).

Without *collective choice rights*, the partnership will continue to work within the confines of conservation outcomes, as defined by the federal government. Because the current ecological state of shellfish is poor, conservation outcomes currently support management priorities for both Parks Canada and Hul'qumi'num communities. However, if ecological restoration is successful, a mechanism to articulate and act on subsequent community priorities is important for preserving the co-management relationship. A more complete co-management arrangement will lead to First Nations articulating *collective choice* rights beyond the confines of a single project.

### **Continuity is important: leadership, relationships, capacity**

Employees of the park reserve have taken initiative to establish close working relationships with Coast Salish nations and have expressed a personal connection and commitment to the work. The employees have also acted as intermediaries of information; collaboration with the Clam Garden Network led to new conservation approaches, and providing supplementary monitoring data for DFO led to harvest openings.

Such leadership is important for establishing and improving relationships. Institutional continuity is important for maintaining enduring relationships and supporting further collaborations. This condition is consistent with other co-management studies that found leadership continuity was an integral part of maintaining co-management (Sessin-Dilascio et al., 2015). Co-management was disrupted when the administrators that had established relationships left, and the agents that replaced him changed more frequently and they were less engaged with community participation (Sessin-Dilascio et al., 2015). The fact that the park reserve is dedicating two positions to continue the clam garden restoration work suggests that Parks Canada is institutionalizing this capacity (Pinkerton, 1989).

## Chapter 6. Conclusion

In Canadian national parks, co-management is a form of governance positioned to advance Indigenous people's self-determination and sovereignty. This is because the purpose of co-management is to establish partnerships that share land and resources equitably. Co-management is a form of governance characterized by bundles of rights that—depending on their allocation—foster incentives for participation in management, perceived legitimacy amongst partners, and resolution of common pool resource dilemmas (Pinkerton, 2003; Schlager & Ostrom, 1992). Co-management is also a process for building relationships, through partnerships that evolve iteratively, solving problems and learning together (Berkes, 2009; Pinkerton, 2003).

Co-management in national parks calls on partners to redefine conservation, using Indigenous values. This type of partnership does not confine co-management to small, scattered, and carefully controlled projects. Rather, complete co-management draws from legal interpretations of Aboriginal rights and title, which find that restricting title to small intensive use sites and not to a broad territory is inadequate to remedy devastating colonial practices to misappropriate unceded Indigenous territories (HTG, 2013).

This case study demonstrates the importance of a landscape level approach to manage parks, which challenges ideals of pristine wilderness. The clam garden restoration project is situating humans at the forefront of ecological integrity. This supports First Nations' assertions regarding the importance of maintaining connections to their traditional resources as a way of fostering social, economic and cultural well-being (Cuerrier et al., 2015).

The clam garden restoration project in the Gulf Islands National Park Reserve is establishing the foundational steps for co-management. Informal arrangements and flexibility in the park reserve foster creativity and direct energy where the community

wants it. The project is receiving widespread support from First Nations communities in a contested territory. It is also leading to tangible community benefits, including new data, new cultural and community connections, and foundational steps for improved harvest.

However, for complete co-management, First Nations' *collective choice rights* must be formally institutionalized in the broader operating framework of the agency (Pinkerton, 1992). In that respect, First Nations must have the power to scope problems, collect data, and establish policy directions; these are higher-order rights (Ostrom, 1992). Securing *collective choice rights* in parks management beyond the scope of one, controlled project, could support Hul'qumi'num community priorities, for example, to restore long-term shellfish harvest.

Co-management is becoming increasingly relevant for Canadian governments required to uphold Aboriginal rights and title on territories with contested ownership. If government relationships with Indigenous people are to move beyond a colonial past, paying attention to complete co-management becomes of paramount importance as a way of supporting Indigenous peoples' sovereignty and self-determination. To that end, the outcomes of these early experiments in co-management will set the tone across Canada and other parts of the world.

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