

Final Report



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Guardian Program Opportunities in the NVI Marine Plan Area



Prepared for the Marine Plan Partnership

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Prepared for:
Marine Plan Partnership

Final Report

March 28, 2016

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Suggested Citation:

Olson, E., H. Milko, and B. Connors. 2016. Guardian Program Opportunities in the NVI Marine Plan Area: Final Report. Prepared by ESSA Technologies for the Marine Plan Partnership. Vancouver, British Columbia. 64 pp + 4 appendices.

Cover Photo:

'Still Waters' by S. Harris



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Acknowledgements

We wish to express our sincere gratitude to all the individuals who participated in interviews and provided us with written responses to our questions (Appendix A). We would also like to thank Scott Harris, John Bones, Karen Topelko and Megan Dickinson for their time, insights and feedback throughout the preparation of this report.



Executive Summary

Background

The Marine Plan Partnership for the North Pacific Coast (MaPP) is an initiative of the Province of British Columbia (BC) and 18 First Nations focused on developing and implementing marine plans for four coastal and marine sub-regions of the BC coast. The North Vancouver Island (NVI) sub-region Plan is a collaboration between the Province and the Nanwakolas Council, which represents seven First Nations in marine planning: the Mamalilikulla-Qwe'Qwa'Sot'Em, Tlowitsis, Da'naxda'xw Awaetlatla, Gwa'sala-'Nakwaxda'xw, Wei Wai Kum, Kwiakah and K'omoks. The NVI Plan was approved and signed in April of 2015.

Many objectives and strategies in the NVI Plan identify an increased role for Guardian Watchmen in monitoring. In 2014, the Nanwakolas Council initiated development of the Hama-yas Stewardship Network in response to member Nations' desire to increase monitoring and stewardship activities within their territories across the NVI region. The Network consists of Guardian programs in each Nation with Guardians who serve as stewards of their territory, both monitoring and protecting cultural and natural heritage resources. In 2015, the newly established NVI Plan Implementation Team commissioned this assessment of opportunities for these Guardian Watchmen programs to support Plan implementation and participate with provincial agencies in the monitoring of marine activities and, where applicable, enforcement of regulations.

Approach

To identify ways in which Guardian Watchmen programs could support monitoring and enforcement in the NVI Marine Plan Area, we conducted assessments of Guardian Watchmen and provincial monitoring and enforcement priorities as well as current monitoring, compliance and enforcement activities and capacity. Our assessment included a review of relevant documentation from First Nations, MaPP, and provincial agencies; elicitation and analysis of information from key informants; and the formulation of recommendations on opportunities for future Guardian Watchmen program collaboration in provincial inspection, monitoring and enforcement in the NVI Marine Plan Area.

Insights from Document Review

Of the seven participating Nations of the Nanwakolas Council, five have Guardian Watchmen programs. Four of the programs began between October 2014 and January 2015, and one program (Gwa'sala-'Nakwaxda'xw Nation) began in 2010. Each Nation identifies priority activities for their Guardian Watchmen program to pursue.

Guardian Watchmen feature prominently in the NVI Marine Plan. The majority of the Plan's 13 identified "topics of importance" (e.g., pollution, conservation and protection, regulatory



compliance and enforcement, etc.) include strategies and objectives that directly relate to Guardian Watchmen programs or monitoring and enforcement. For example, the regulatory compliance and enforcement topic identifies a need to increase and enhance First Nations role in monitoring, surveillance and enforcement. The conservation and protection as well as research, education and training topics of importance identify multiple strategies related to First Nations involvement in monitoring or enforcement. Additionally, the cultural and heritage resources topic of importance identified a need for Guardian Watchmen involvement in cultural resource management. MaPP has developed a suite of ecological indicators to support implementation of marine plans and many of these indicators could be monitored by Guardian Watchmen programs.

The majority of provincial inspection, compliance monitoring, and enforcement activities are undertaken by the Compliance and Enforcement Branch within the Ministry of Forests, Lands and Natural Resource Operations (FLNRO) as well as the BC Parks and Conservation Officer Service Division and the Environmental Protection Division within the Ministry of Environment (MoE). All of the provincial policy and program documents reviewed indicate that policy does not prevent, and in some cases supports, Guardian Watchmen programs taking on monitoring responsibilities. Concurrently, provincial employment records indicate that there are a limited number of compliance and enforcement employees who are responsible for large areas, which presents a limitation that could be addressed, at least in part, by the involvement of Guardian Watchmen who are already working in their territories. Examples of specific areas within the traditional territories of Nanwakolas member Nations that could provide opportunities for collaboration, include working with BC Parks on conservancies within the Central Coast / North Island Section and working with FLNRO related to archeological sites.

We reviewed three cases of aboriginal group involvement in inspection, monitoring, and enforcement activities in other jurisdictions to identify aspects relevant to collaboration between the Ha-ma-yas Stewardship Network and the Province. These three cases included the Coastal Stewardship Network, comprised of Guardian Watchmen from Nations on the central and north coast of BC, the Australian Rangers “Working on Country” program, and the Haida Nation involvement with the Federal government in the cooperative management of the Gwaii Haanas National Park Reserve. Key insights from these other programs relevant to the Ha-ma-yas Stewardship Network include the need for: standardized data collection with a focus on connecting data collection to decision-making needs, strong government support to ensure long-term sustainability of the program and career opportunities for participants in it, and incorporating the interests of all parties at the highest organizational level along with clarified roles and responsibilities for operations level activities.

Insights from Key Informant Interviews

The Ha-ma-yas Stewardship Network has only existed for one year and there are considerable differences among the Guardian programs of each Nation. These differences include how each program interacts with their Nation’s governing council, historical and



geographical context, and program implementation and funding. Securing funding has been one of the biggest challenges the programs have experienced so far along with acquiring equipment, managing inexperienced Guardians, and determining how to collect information in a useful way. Despite these challenges, individual Guardian programs have been able to develop and implement training programs, build relationships with local non-profit organizations, become more familiar with their territories, and begin to collect data.

Moving forward, Guardian programs are seeking to find ways to creatively build relationships that will allow them to pursue activities that reflect the inherited territorial stewardship responsibility of the nations and that will bring in funding to ensure long-term financial stability for their programs. Interviewees acknowledged that opportunities exist to collaborate with the Provincial government, but that for certain activities there is a need for additional training related to understanding legislation and regulations. Enforcement activities were viewed as those that Guardians will not pursue in the near future because they require a substantial amount of training and delegation of authority.

All provincial enforcement agencies prioritize their monitoring and compliance activities based on policy direction, risk, and the analysis of compliance data from previous years. As a result, the degree to which provincial patrols are planned or reactive is variable. Provincial agencies are limited in the number of compliance and enforcement officers who are responsible for large areas, and as a result some remote areas are never patrolled. These limitations in provincial capacity and gaps in coverage present an opportunity for Guardian Watchmen programs to support provincial monitoring and compliance activities.

Interviewees from the Province identified several potential barriers to collaboration with Guardian Watchmen programs. These include issues of legal liability and personal safety in enforcement, limited provincial jurisdiction in the marine environment, and complexities in working with multiple First Nations with overlapping Title claims. However, all provincial interviewees viewed collaboration with Guardian Watchmen positively, if limited to ecological monitoring, compliance promotion through presence on the water, observe, record, report (ORR), and provision of data to support enforcement activities. Interviewees stressed the importance of building trust and relationships through joint actions as a starting point.

Barriers and Opportunities to Guardian Watchmen program and Provincial collaboration

Based on documents and interviews, we catalogued the full range of monitoring and enforcement activities undertaken by the provincial government, the extent to which each provincial activity is stated to occur, and the actual degree to which each activity occurs. For each of these activities we then identified barriers and opportunities to collaboration on these activities between Guardian Watchmen programs and Provincial agencies.

Barriers to collaboration include:



- Provincial legal liability for personal safety of Guardian Watchmen and their actions if authority is delegated.
- Guardian Watchmen skills are perceived to be insufficient to support provincial activities or to be below provincial standards.
- Limits to provincial capacity (human and financial) to support Guardian Watchmen program involvement in monitoring and compliance activities.
- Limits to the ability of Guardian Watchmen programs to be self-sustaining and build capacity due to current low human and financial capacity.

Opportunities identified include:

- Trust and relationships between First Nations and the Province already exist in some instances and there is strong potential to continue build relationships.
- Low provincial capacity creates a Provincial willingness to collaborate with First Nations on low-risk activities.
- The Province has repeatedly articulated in program and policy documents that they are seeking to collaborate on, and in some cases delegate responsibility for, monitoring to First Nations and stakeholder groups.
- Individual provincial staff have indicated a willingness to collaborate with Guardian Watchmen in particular areas.
- Some provincial monitoring activities have been identified as a priority by First Nations.
- A number of provincial activities have low personal safety concerns and low legal liability risks.

Following our assessment of barriers and opportunities we rated provincial monitoring, compliance, and enforcement activities based on the potential for Guardian Watchmen collaboration. Activities with the highest potential for collaboration include:

- Environmental monitoring (both ambient and effectiveness).
- Compliance promotion through visible presence in an area.
- Observe, record, and report in compliance related activities (particularly in parks and protected areas).
- Provision of environmental data as evidence for enforcement.

Recommendations

The Ha-ma-yas Stewardship Network has accomplished a lot in it's first year including establishing a presence in the NVI sub-region, acquiring funding and equipment, and beginning to collect and analyze data. Although there are areas where the Network could improve (e.g., increasing connection between Guardian activities and management



priorities), it is clear that the Network is valuable. Given this value, and potential of the Network, our first and overarching recommendation is that the Network continues to exist and grow into the future in a way that supports collaboration with the Provincial government. Provincial capacity to carry out monitoring, compliance and enforcement activities is limited. To promote, establish, and grow inspection, monitoring and enforcement collaborations between the Province and NVI Guardian Watchmen programs we have the following recommendations:

Increase First Nation and Provincial connections at multiple organizational levels

We recommend that First Nations organizations and provincial agencies actively seek out opportunities for partnerships at multiple organizational levels including: at the level of individuals working in the field (including conducting joint patrols), collaboration at the managerial level (including drafting an agreement detailing areas in which Guardian programs can support priority provincial monitoring and compliance), and discussions at the government-to-government level (including continued discussions that increase Guardian program and provincial agency collaboration opportunities). Such interaction and collaboration will help to ensure that efforts at one level are not undermined by a lack of engagement and support at another level.

Pilot collaborations in areas with few barriers and many opportunities

We recommend that pilot collaborations between Guardian Watchmen programs and provincial agencies be initiated in the following areas:

- ***Build upon existing agreements and relationships***

Previous collaboration between Nanwakolas Nations and the Ministry of Environment (especially in relation to Conservancies) have formed the basis for recommending that initial discussions be pursued between the Ha-ma-yas Stewardship Network and BC Parks in two areas:

- Collaboration opportunities between the Gwa'sala-Nakwaxda'xw Guardian program and BC Parks related to the Conservancies that have signed management plans.
- Collaboration opportunities between the Mamalilikulla-Qwe'Qwa'Sot'Em Guardian program and BC Parks related to the Broughton Archipelago Marine Park, Broughton Archipelago Conservancy, and the Qwiquallaaq/Boat Bay Conservancy, the last of which has a signed management plan.

We also recommend that discussions be pursued regarding collaboration between these two Guardian programs and the Archaeological Branch in FLRNO related to monitoring and data collection for cultural heritage sites.

- ***Conduct compliance promotion & observe, record and report activities***

We recommend Guardian Watchmen programs be involved in compliance promotion that is related to being a visible presence (with official uniforms) in their territory,



especially through conducting patrols within protected areas and at cultural heritage sites. In addition to compliance promotion at cultural heritage sites, we recommend that the Ha-ma-yas Stewardship Network collaborate with the FLRNO Archaeology Branch to discuss how Guardian Watchmen can conduct compliance verification within an ORR role at cultural heritage sites in a way that best supports provincial mandates. We further suggest that Guardian Watchmen programs collaborate with provincial agencies to involve Guardians in compliance verification within an ORR role using a standardized approach for recording and reporting non-compliant instances related to human activities and tenures. However, we recommend that this not involve engaging with non-compliant users and that Guardians be familiar with the tenure permit conditions prior to conducting ORR activities.

- Conduct environmental monitoring

We recommend that provincial and Guardian Watchmen program collaborations include both ambient monitoring (measuring ecosystem status and trends) as well as effectiveness monitoring (measuring environmental condition to determine whether regulatory standards are having an effect in the environment). Building upon efforts by MaPP to determine where provincial and First Nations environmental monitoring priorities overlap, we recommend that Ha-ma-yas Stewardship Network representatives and individuals from relevant provincial agencies (e.g., MoE Environmental Sustainability and Strategic Policy Division) initiate discussions to coordinate monitoring and data collection efforts related to environmental indicators that are identified.

- Collect and provide environmental data as evidence for enforcement

We recommend that Guardians and officers within relevant provincial agencies (i.e., FLNRO, COS, EPD) discuss the provision of environmental data as evidence for enforcement during joint patrols and then schedule meetings to further discuss the proper avenues for the provision of data. This process of establishing protocols will foster relationships between Guardians and relevant provincial staff and further ensure that any evidence gathered is useful for enforcement purposes.

Address barriers to First Nation and provincial collaboration on compliance verification monitoring

Although a number of barriers to Guardian program and provincial collaboration on compliance verification were identified (i.e., high levels of training and liability), it is an activity where collaboration could exist if there are efforts to overcome the barriers. Thus, we recommend that individuals at the managerial and government-to-government levels within Nanwakolas Nations and the Province actively engage in discussions aimed at ensuring: (1) Guardian training is sufficient to address liability concerns, and (2) necessary protocols or agreements are developed to enable Guardian Watchmen to have the proper legal authority to conduct inspections, audits, and tenure/permit verifications.



Increase Provincial government commitment to working with Guardian Watchmen programs

Given the multiple provincial documents that articulate the importance of collaborating with First Nations (see Section 3.3), we recommend that the Provincial government (within FLNRO and MoE) formally commit to working with the Ha-ma-yas Stewardship Network and Guardian Watchmen programs in the ways that have been outlined in the previous recommendations, including committing to financially support Guardian Watchmen programs in monitoring that informs provincially mandated resource management.

Guardian Watchmen program existence, stability, and success is critical for building meaningful and lasting Provincial collaborations. Therefore, we also recommend:

Increased commitment within Nations to embrace Guardian Watchmen programs

Because the Guardian Watchmen programs are in their infancy, and in the process of assessing their capabilities, capacity and priorities, now is the time for programs to better connect with their Nation's Council and identify ways in which they can be most valuable to the Nation. We recommend that Nations invest effort into determining the type of information that is useful for the Nation and connecting it to specific activities that are undertaken by the Guardians. This will increase the value of Guardian programs at the Nation level, and help to ensure the existence of the programs into the future.

Development of a Ha-ma-yas Stewardship Network long-term business plan

An ongoing challenge for NVI Guardian programs has been securing funding. Thus, we recommend that the Ha-ma-yas Stewardship Network develop a long-term business plan that considers multiple types of revenue sources. As part of developing a business plan, we recommend working with provincial agencies to identify the ways in which Guardian programs can be compensated for conducting monitoring activities in situations where it is more effective for Guardian Watchmen to conduct monitoring than the provincial agencies.

Assessment of opportunities to collaborate with the Federal government on priority activities within the NVI sub-region

The impetus for this report, and more generally interest in collaboration between Guardian Watchmen and the Province, is driven by the collaborative exercise undertaken by First Nations and the Province to develop a marine plan for the NVI area. However, there are a multitude of marine use activities, such as fishing and shipping, which are the jurisdiction of the Canadian federal government, and so are not part of the MaPP NVI Marine Plan. Given this jurisdictional complexity, we recommend an assessment focused on opportunities for Guardian Watchmen to support federal monitoring, compliance, and enforcement activities be carried out. Identifying such opportunities is likely to further build and strengthen the capacity of Guardian programs to engage in priority monitoring, compliance, and enforcement activities within the NVI region.



1 Background

The Marine Plan Partnership for the North Pacific Coast (MaPP) is a collaboration between the Province of British Columbia (BC) and 18 First Nations to develop and implement marine plans for the coastal and marine areas of four sub-regions in BC. With the completion of the plans in 2015, MaPP is now in the implementation phase. The North Vancouver Island (NVI) Marine Plan provides recommendations for achieving ecosystem-based marine management in the marine and foreshore areas between Vancouver Island and the BC mainland from the Cape Scott Islands and Cape Caution in the north to Quadra Island in the south (Figure 1). The NVI Plan is a collaboration between the provincial government and the Nanwakolas Council, which represents seven First Nations in marine planning: the Mamaliikulla-Qwe'Qwa'Sot'Em, Tlowitsis, Da'naxda'xw Awaetlatla, Gwa'sala-'Nakwaxda'xw, Wei Wai Kum, Kwiakah and K'omoks.

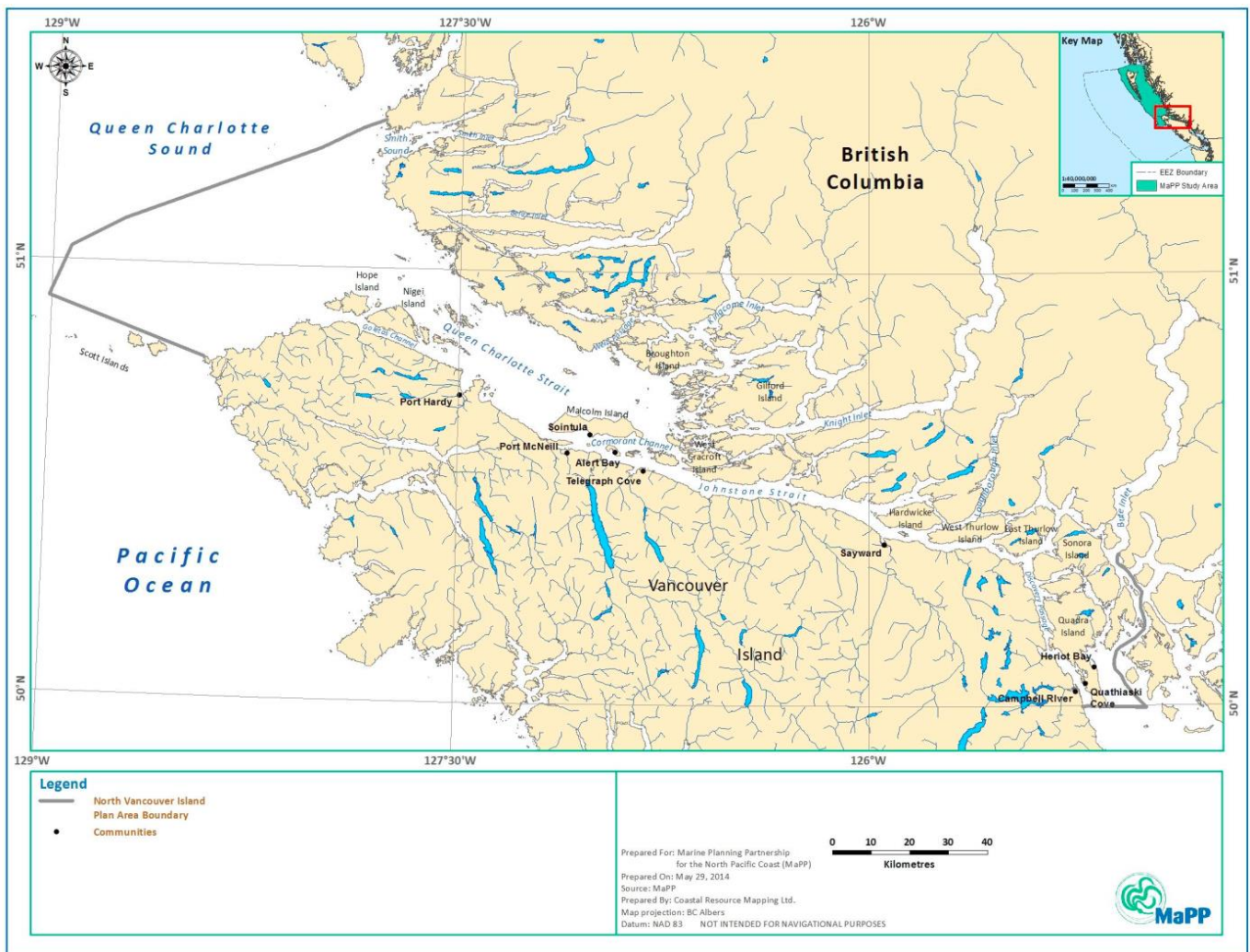


Figure 1. MaPP NVI Marine Plan area (Marine Planning Partnership Initiative 2015, p.2)

A Coastal Guardian Watchmen Network (now named the Coastal Stewardship Network (CSN)) began with the Coastal First Nations organization on the north and central coast of BC in 2005. Within this network, Guardian Watchmen “carry forward the work of their ancestors to manage and respect their natural and cultural resources through traditional laws” (Coastal Stewardship Network 2015a). Guardian Watchmen monitor the ecosystem health and the impact of industrial and recreational activities in their Nations’ traditional territories, encourage compliance with environmental regulations through their presence on the water, collect data to inform decision-making, and assist with resource management initiatives like marine planning. Within the NVI region, the Gwa'sala-'Nakwaxda'xw were the first to develop a Guardian Watchman program and have been working with the CSN since 2010.

The Nanwakolas Council was formed in 2007 to facilitate land and marine resource planning and economic development activities within the NVI region for member Nations (Nanwakolas Council 2016). In 2014, the Nanwakolas Council responded to the desire of several member Nations to increase their monitoring and stewardship activities by supporting the development of a Guardian Watchmen Network similar to the one on the north and central coasts, which was then named the Ha-ma-yas Stewardship Network. Between October 2014 and January 2015 four First Nations (Komoks, Tlowitsis, Mamalilikulla-Qwe'Qwa'Sot'Em, and Da'naxda'xw Awaetlatla) launched Guardian Watchmen programs.

As many of objectives and strategies in the NVI Plan identify an increased role for Guardian Watchmen in monitoring, the newly established NVI Plan Implementation Team commissioned an assessment of opportunities for Guardian Watchmen programs to support Plan implementation and participate with provincial agencies in the monitoring of marine activities and, where applicable, enforcement of regulations. This report details this assessment and findings. In particular, it is aimed at identifying:

- Monitoring and enforcement needs based on the NVI Marine Plan.
- Strengths and weaknesses of the current Guardian Watchmen programs and relevant provincial programs.
- Capacity, training, infrastructure and resourcing needs for Guardian Watchmen programs and relevant provincial programs.
- Barriers to Guardian Watchmen participation in monitoring and, where applicable, enforcement.
- Current opportunities for Guardian Watchmen programs and relevant provincial programs to meet monitoring and enforcement needs.
- Future options for overcoming barriers and meeting capacity needs to support monitoring and enforcement needs.

In the following sections of the report we describe the approach we took to carry out the assessment and key findings from the document review and interviews that we conducted.



We then summarize the main monitoring, compliance, and enforcement activities of the provincial government and identify where opportunities and barriers exist for Guardian Watchmen to take on responsibilities in each of these areas. In the final section of the report we provide recommendations for increasing opportunities for Guardian Watchmen to support provincial monitoring, compliance and enforcement activities.



2 Approach

Our approach to identifying ways in which Guardian Watchmen programs could support monitoring and enforcement in the NVI Marine Plan Area was based on assessing monitoring and enforcement priorities and current Ha-ma-yas Stewardship Network and Provincial monitoring, compliance and enforcement activities and capacity. Our assessment included a review of relevant documentation, elicitation and analysis of information from key informants, identification of barriers and opportunities for Guardian Watchmen involvement in provincial monitoring, compliance and enforcement activities and formulation of recommendations moving forward. We describe each of the steps to our approach in the following sections.

2.1 Document review

We reviewed the NVI Marine Plan to identify overarching monitoring and enforcement priorities within the NVI sub-region as well as objectives and strategies related to Guardian Watchmen programs and provincial monitoring, compliance and enforcement activities. We also reviewed indicator work done by MaPP to identify areas where provincial monitoring may overlap with potential MaPP related monitoring activities.

We reviewed First Nation documents to gain an understanding of First Nations monitoring and enforcement priorities as well as Guardian Watchmen program capacity. Provincial documents were then reviewed to identify ministries and divisions with legislative authority related to monitoring and enforcement. We reviewed relevant legislation and activities related to it along with other provincial documents related to inspection, monitoring and enforcement of marine activities. While we focused on documents related to higher level objectives and potential capabilities of Guardian programs, in some instances it was necessary to drill down into the nuts and bolts of provincial programs, policies and regulations to identify where Guardian programs may help to support provincial operations.

2.1 Key informant identification & questionnaire development

Working with individuals at the Nanwakolas office and Provincial government, we developed a list of key informants made up of people within First Nations organizations and Provincial ministries (Appendix A). Key informants within First Nations organizations included Guardian Watchmen, individuals working at the Nation level, and individuals working across the NVI sub-region (e.g., Nanwakolas). Provincial informants included those working within the Ministry of Forests, Lands and Natural Resource Operations (FLNRO) and the Ministry of Environment (MoE). Individuals were added to the list of key informants during the interview process based on suggestions from interviewees.



After identifying key informants we developed two questionnaires: one for individuals from First Nations organizations and one for individuals from the Provincial government (Appendix B). Questions in the First Nations questionnaire were aimed at eliciting information about the current status of Guardian Watchmen programs, Guardian Watchmen program capacity, the connection between Guardian Watchmen activities and First Nation management priorities, and future opportunities for Guardian Watchmen programs. Questions in the Provincial questionnaire focused on eliciting information about current monitoring and enforcement activities, data use in management, current collaboration with First Nations organizations, and future opportunities for collaboration with Guardian Watchmen programs. We then “pre-tested” the questions for comprehension and appropriateness by sending them to individuals at the Nanwakolas office and Provincial government (Schensul and LeCompte 2013, Spradley 1979).

2.2 Semi-structured interviews

We conducted small group and one-on-one interviews either in-person or via telephone. We used a semi-structured format to ensure gathered information related to the topics in the questionnaire while also allowing individuals to pursue their own train of thought and provide deeper insight than might otherwise be elicited (Huntington 2000, Salmon et al. 2007, Lindquist and Long 2011). We provided participants with the questionnaire in advance so that they could consider responses prior to the interview. At the start of the interview we informed participants that their responses would be reported anonymously. At the end of the interview, we provided individuals with our contact information in case they had any additional responses. Some key informants were not available for interviews and so were given the questionnaire and invited to provide written responses.

A total of nineteen individuals were interviewed and four individuals provided written responses. Ten of the interviewees were from First Nations organizations and nine were from the Provincial government. The four individuals that provided written responses were from the Provincial government. Interview responses were based on personal observations and perspectives and not official positions of Provincial or First Nations governments.

2.3 Thematic analysis & formulation of recommendations

We used a general inductive approach for analysis, whereby we coded individual responses based on the topic(s) covered and organized them by theme (Thomas 2006, Tuvendal and Elmqvist 2011). Responses were organized into the following themes:

- Current Status
- Monitoring, Enforcement & Data
- Management
- Collaboration & Data Sharing
- Capacity



- Future Directions

We coded interview and written responses so that they could be organized into themes and summarized. We then developed a table detailing types of provincial monitoring and enforcement activities, the current way in which those activities take place, and barriers and opportunities for Guardian Watchmen involvement in the activities (Table 6). This table provided the basis for developing recommendations related to opportunities for Guardian Watchmen programs to collaborate with provincial agencies in monitoring and enforcement of marine activities. Additionally, we recognized that Guardian Watchmen programs will not be able to collaborate with Provincial agencies if they are not able to persist. Thus, we developed recommendations related to helping to ensure Guardian Watchmen programs are sustained into the future.



3 Insights from Document Review

3.1 First Nations documents

The Ha-ma-yas Stewardship Network serves participating Nations of the Nanwakolas Council (Figure 2). The Network was formed in January 2015 in order to enhance each Nation's stewardship capacity, and support effective management of cultural heritage resources, economic development opportunities, and ecological values. The Network is designed to support each Nation in their own areas of stewardship interest, with special focus on issues that are consistent across the region. Initial funding for the Network and Nations' programs have come from a variety of sources, which vary in the length of time for which they will continue to be available.

Ha-ma-yas Stewardship Network Vision

The Network enables each of the member Nations to develop their own capacity to monitor and enforce their stewardship responsibilities as well as make informed decisions throughout their respective territories. Through a regional approach the Network continues to coordinate and support the development of each First Nation's stewardship activities.

Nations that are members of the Network identify their priorities and determine the activities that their Guardian Watchmen programs pursue. The Ha-ma-yas Stewardship Working Group includes representatives from each member Nation, and they provide input on the Nation's interests to guide activities of the Network. The first working group meeting took place in January of 2015 and there have been several meetings since then.

The Ha-ma-yas Stewardship Network organized Guardian Watchmen training in the spring of 2015. This training was related to safety, boat operations, compliance and monitoring, engaging with people, and using the CoastTracker data collection device. The Network also coordinated training related to data collection methodologies for conducting surveys of eelgrass, seals, clams, crabs, and prawns. This training included instruction in methodologies related to water sampling and documenting suspicious activities. The Network has also partnered with Vancouver Island University (VIU) and the CSN to deliver a three year, multi-level training program to support consistent and standardized Guardian Watchmen professional development. This training program includes condensed versions of VIU's Resource Management Officer Training program courses such as: Introduction to Parks and Protected Areas with BCIT Park Administration exam (RMOT 202), Compliance Communication and Resource Monitoring (RMOT 165), and various environmental monitoring skills. Moreover, it is designed to align with provincial and federal resource management officer preparatory standards (Milko 2015).



There are currently five Nations with Guardian Watchmen programs:

- Gwa'sala-'Nakwaxda'xw First Nation – program began in 2010
- Da'naxda'xw/Awaetlala First Nation – program began in 2015
- Mamalilikulla-Qwe'Qwa'Sot'Em First Nation – program began in 2014
- Tlowitsis First Nation – program began in 2015
- K'omoks First Nation – program began in 2014

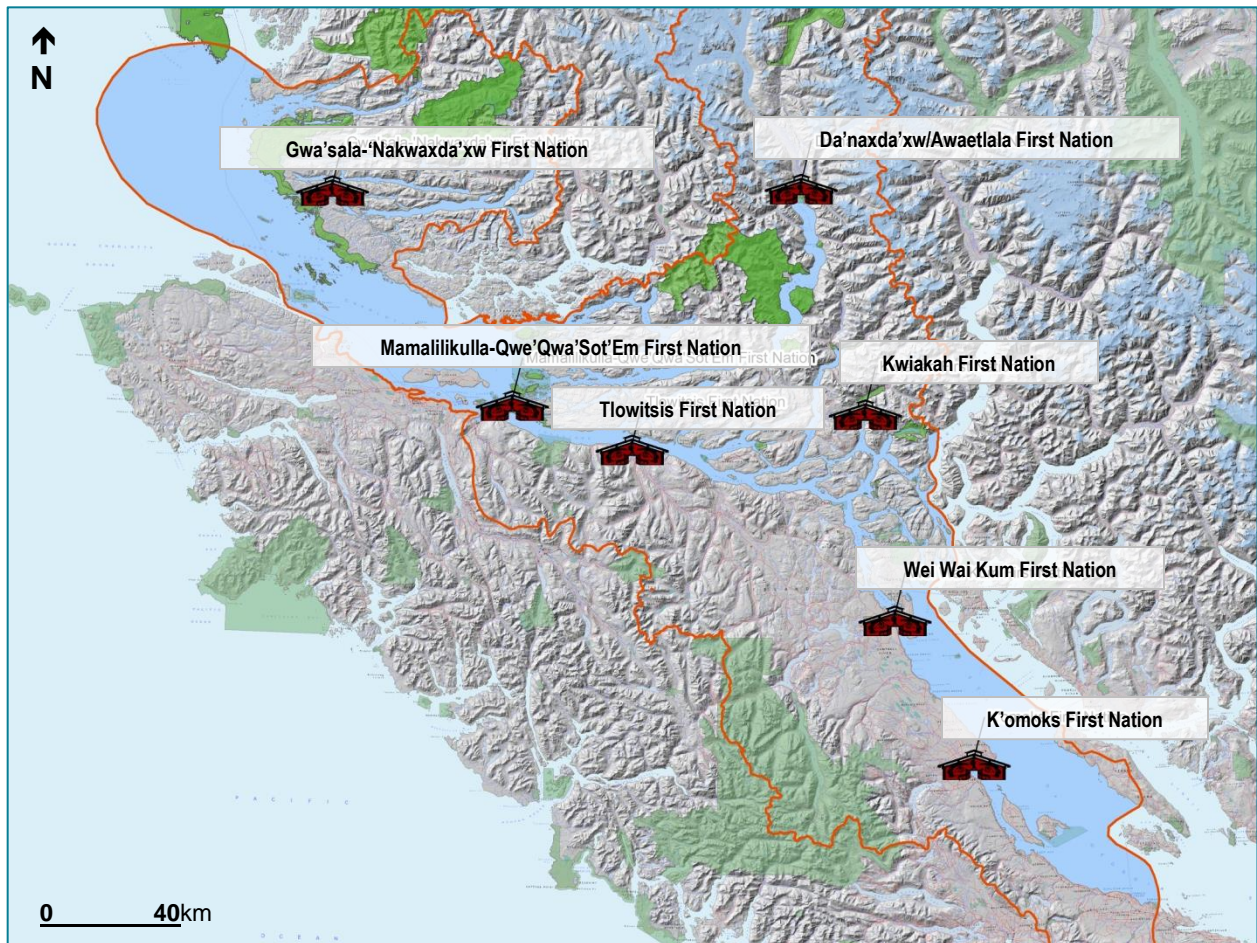


Figure 2. The Nanwakolas Council member First Nations (map provided by Nanwakolas office).

Prior to development of the Ha-ma-yas Stewardship Network, the seven Nanwakolas member Nations each developed a marine plan that describes direction for managing specific activities, uses and areas within their territory. These marine plans were finalized between 2012 and 2014, and used in development of the Ha-ma-yas Marine Plan.

The Ha-ma-yas Marine Plan is an expression of the collective interests and values of the seven Nations (Nanwakolas Council 2014). It describes the background and context for the plan area, and issues, objectives and strategies are described to provide direction for management. Multiple issues, objectives and strategies are either connected to monitoring and enforcement or specifically mention Guardian Watchmen, including ones that relate to climate change, First Nations cultural resources, marine protected areas, marine uses and activities, economic strategies, and stewardship. The most relevant objective is: “Improve stewardship, monitoring and enforcement activities in the marine traditional territories”, and includes the strategies (Nanwakolas Council 2014):

- Maintain member Nation participation in the Coastal Guardian Watchmen Network and provide opportunities for participation by non-participating member First Nations.
- Secure funding for development and operation of a guardian/watchman program for member First Nations.
- Focus enforcement efforts on buyers of illegally-fished products.
- Utilize the guardian/watchman program to monitor and enforce First Nations, provincial and federal plans and regulations, including those for:
 - Conservancies and Protected Areas;
 - Fisheries management and monitoring (including eulachon, herring, abalone);
 - Compliance with provincial tenure provisions;
 - Fisheries closures, including Rockfish Conservation Areas;
 - Marine mammal monitoring (e.g., whales, seals);
 - Marine oil spill response;
 - Marine vessel pollution;
 - Cultural heritage sites.
- Coordinate training for the First Nations guardian/watchman program with other enforcement agencies for a collaborative approach to compliance and enforcement monitoring.

The Ha-ma-yas Marine Plan was used as the basis for forming the MaPP NVI Marine Plan, which is discussed in Section 3.2.

Within the Ha-ma-yas plan area are conservancies that have been identified and protected by the Province of BC (Table 1). These conservancies are set aside for four main purposes (BC Parks 2015a):

- Protection and maintenance of their biological diversity and natural environments.
- Preservation and maintenance of social, ceremonial and cultural uses of First Nations.
- Protection and maintenance of their recreational values.
- Development or use of natural resources in a manner consistent with the previous purposes.



Recognizing First Nations' assertions regarding Aboriginal Rights, collaborative agreements were developed between individual Nations and the Province of BC stating that they will work together in the planning, management and use of the conservancies. Conservancies with collaboratively developed management plans are described in Table 1.

Table 1. BC Parks conservancies in the MaPP NVI Marine Plan area, the status of each conservancy management plan, and the First Nations who collaboratively developed each plan (BC Parks 2015a).

Conservancy (Year designated; Size in ha)	Management Plan Status
Broughton Archipelago Conservancy (2008; 41,111)	No available information
Burdwood Group Conservancy (2009; 121)	Final plan under development
Cetan/Thurston Bay Conservancy (2007; 230)	No available information
Dzawadi/Klinaklini Estuary Conservancy (2007; 808)	Draft plan dated August 2011; Final plan to be signed with Da'naxda'xw/Awaetlala First Nation
Forward Harbour/łəxə ^w əyəm Conservancy (2007; 306)	No available information
Hənłəmd ⁱ Məkola/Yorke Island Conservancy (2007; 39)	Draft plan under development
Hunwadi/Ahnuhati — Bald Conservancy (2006; 55,423)	Draft plan dated August 2011; Final plan to be signed with Mamalilikulla-Qwe'Qwa'Sot'Em First Nation and Da'naxda'xw/Awaetlala First Nation
Mahpahkum-Ahkwuna/Deserters-Walker Conservancy (2006; 931)	Plan signed March 2013 with Gwa'sala-'Nakwaxda'wx First Nation
Negil/Nekite Estuary Conservancy (2007; 481)	Plan signed March 2013 with Gwa'sala-'Nakwaxda'wx First Nation
Pałəmin/Estero Basin Conservancy (2007; 2,978)	No available information
Phillips Estuary/?Nacinux ^w Conservancy (2007; 1,461)	Draft plan undergoing public review and comment
Polkinghorn Islands Conservancy	No available information
Qudəs/Gillard-Jimmy Judd Island Conservancy (2007; 45)	No available information
Qwiquallaaq/Boat Bay Conservancy (2007; 639)	Plan signed on January 2013 with Mamalilikulla-Qwe'Qwa'Sot'Em First Nation
Tsa-Latí/Smokehouse Conservancy (2006; 37,886)	Plan signed March 2013 with Gwa'sala-'Nakwaxda'wx First Nation
Ug ^w iwa'/Cape Caution Conservancy (2007; 10,241)	Plan signed March 2013 with Gwa'sala-'Nakwaxda'wx First Nation



Conservancy (Year designated; Size in ha)	Management Plan Status
Ug ^w iwa'/Cape Caution - Blunden Bay Conservancy (2007; 237)	Plan signed March 2013 with Gwa'sala-'Nakwaxda'wx First Nation
Wahkash Point Conservancy (2007; 189)	Draft plan dated July 2011; Final plan to be signed with Da'naxda'xw/Awaetlala First Nation
Wakeman Estuary Conservancy (unknown)	No available information
Wawaλ/Seymour Estuary Conservancy (2007; 326)	Plan signed March 2013 with Gwa'sala-'Nakwaxda'wx First Nation
Xwa?w??naxd??ma /Stafford Estuary Conservancy (2007; 742)	No available information

Summary

The Ha-ma-yas Stewardship Network was formed in January 2015 to serve the seven participating Nations of the Nanwakolas Council. Each member Nation identifies their needs and determines the activities that their Guardian Watchmen program pursues. Representatives from each Nation sit on the Ha-ma-yas Stewardship Working Group and provide input to guide the Network. There are currently five Nations with Guardian Watchmen programs (Gwa'sala-'Nakwaxda'wx First Nation, K'omoks First Nation, Mamalilikulla-Qwe'Qwa'Sot'Em First Nation, Da'naxda'xw/Awaetlala First Nation, Tlowitsis First Nation).

Each of the seven Nations within the Nanwakolas Council developed a marine plan. Those marine plans were used to develop the Ha-ma-yas Marine Plan, which includes issues, objectives and strategies that provide direction for management of marine uses and activities within the plan area. Collaborative management agreements exist between individual First Nations and the Province of BC (MoE) to manage conservancies that are within the Ha-ma-yas Marine Plan area.

3.2 MaPP documents

The NVI Marine Plan was collaboratively developed by the Nanwakolas Council, and the Province of BC (Marine Plan Partnership Initiative 2015). Using an ecosystem-based approach, the plan includes a vision for the plan area as well as objectives and strategies for marine management related to the following topics of importance:

- Community and Economy
- Infrastructure
- Pollution
- Aquaculture
- Energy
- Fishery Economy and Associated Values



- Conservation and Protection
- Cultural and Heritage Resources
- Recreation and Tourism
- Forestry Operations
- Governance and Collaborative Management
- Regulatory Compliance and Enforcement
- Research, Education and Training

Additionally, the plan identifies spatial zones and recommended uses and activities within each zone.

Guardian Watchmen and monitoring and enforcement feature prominently in the NVI Marine Plan. The majority of topics of importance identified in the NVI Marine Plan include strategies and objectives that directly relate to Guardian Watchmen programs or monitoring and enforcement (Table 2). The most notable objective of the marine plan (objective 2.1 within the regulatory compliance and enforcement topic) is to increase and enhance First Nations’ roles in on-the-water monitoring, surveillance and enforcement within existing regulatory regimes (Marine Plan Partnership Initiative 2015). In addition, the conservation and protection as well as research, education and training topics of importance have numerous objectives and strategies related to monitoring and enforcement (Appendix C).

The NVI plan includes a chapter on plan implementation that sets out an implementation schedule for each strategy (Table 20 in Marine Plan Partnership Initiative 2015). These schedules, along with funding and governance requirements, are provided in italics after each of the strategies in Table 2. Most of the strategies are ongoing and two are scheduled for implementation within the first 6 months (Marine Plan Partnership Initiative 2015):

- Work with relevant government agencies to identify opportunities where Guardian Watchmen could participate in the surveillance of marine activities and the enforcement of marine regulations. (Regulatory Compliance and Enforcement S.2.1.1)
- Collaborate with other organizations to enhance surveillance, management and enforcement capabilities within all marine conservation and protection areas. (Conservation and Protection S.5.1.1)

NVI Marine Plan Area Vision

The Plan Area has healthy, diverse and resilient marine ecosystems that support social and cultural opportunities and a thriving economy. The goods and services provided from the Plan Area are world renowned and a major source of economic, community, cultural and social prosperity. Implementation of the Plan has reinforced the unique cultural connection of area First Nations to their traditional lands, waters and resources. Uses and activities are innovative, adaptable to changing technologies and environments, respect traditional values, and support the long-term sustainability of the supporting ecosystems. The management and decision-making processes for uses and activities are efficient, transparent and accountable, involve effective cooperation between jurisdictions, authorities and business, and consider future generations. The vision has been achieved through decisions that are guided by traditional and modern values, teachings and principles of Ecosystem-based Management. Community members, including First Nations members, are actively engaged in the stewardship, monitoring and management of the resources upon which their livelihoods depend. (Marine Plan Partnership Initiative 2015, p. 41)



The remaining relevant strategies are scheduled for implementation within 12 months of the beginning of plan implementation.

Table 2. NVI Marine Plan objectives and strategies that relate to Guardian Watchmen programs. The implementation schedule for each strategy is in italics (Marine Planning Partnership Initiative 2015).

Cultural and Heritage Resources	
4.3.5 - Issue 4. Level of First Nations involvement in cultural resources management for the Plan Area	
O.4.1 Increase Nanwakolas member First Nations role in cultural resources management.	S.4.1.1 Establish a provincial government/Nanwakolas member First Nations agreement to address such topics as surveillance and enforcement of cultural resources in Guardian Watchmen programs. <i>Start within 12 months, new funding or resources required, governance structure required</i>
Fishery Economy and Associated Values	
4.3.10 - Issue 4. Environmental impacts of fishery activities	
O.4.1 Reduce the ecological impacts of commercial and recreational fisheries.	S.4.1.3 Encourage compliance through existing and new monitoring programs, information and education (e.g. guardian watchmen, electronic monitoring). <i>Ongoing activity, no new funding or resources required</i>
Regulatory Compliance and Enforcement	
4.3.12 - Issue 2. First Nations role in on-the-water monitoring, surveillance and enforcement within existing regulatory regimes	
O.2.1 Increase and enhance First Nations role in on-the water monitoring, surveillance and enforcement within existing regulatory regimes.	S.2.1.1 Work with relevant government agencies to identify opportunities where Guardian Watchmen could participate in the surveillance of marine activities and the enforcement of marine regulations. <i>Start within 6 months, new funding or resources required, governance structure required</i>
	S.2.1.2 Increase the use of Guardian Watchmen programs to assist with monitoring and facilitating compliance with tenure provisions, marine plans and existing regulations. This could include, but is not limited to, ecological conditions, conservancies and protected areas, marine oil spill response, cultural and heritage resources, and related early warning systems. <i>Start within 12 months, new funding or resources required, governance structure required</i>
	S.2.1.3 Identify opportunities for the Guardian Watchmen program to participate in surveillance of unregulated activities, such as public recreation and tourism. <i>Start within 12 months, new funding or resources required, governance structure required</i>
	S.2.1.4 Identify funding and resource opportunities for enabling First Nations involvement in the Guardian Watchmen program. <i>Start within 12 months, new funding or resources required, governance structure required</i>

MaPP in collaboration with Uuma Consulting Ltd and West Coast Aquatic, developed a list of indicators to monitor ecological integrity, human well-being and governance for use in marine plan implementation. Indicators were selected according to their ability to inform ecosystem integrity (including environmental quality, structure, and function) based on a review of relevant literature, expert surveys and workshops (King and Day 2014). This process identified three groups of indicators:

- Dashboard Indicators – provide a snapshot of overall changes and trends in the marine ecosystem, and are tailored to provide useful information for decision-makers and the public.
- EBM Indicators – relate to broad EBM goals or have a high degree of connectivity in the ecosystem, and are tailored to provide a comprehensive understanding of the ecosystem for use in ecosystem management or cumulative effects assessments.
- Toolkit Indicators – provide information about specific species or ecosystem components, and are tailored to provide information useful for managers or researchers.

Table 3. MaPP ecological dashboard indicators (from Day et al. 2013)

<u>Ecological State Indicators</u>	<u>Environmental State/Driver Indicators</u>
<i>Habitat Quantity and Quality</i>	○ Climate indices
○ Area of functional estuarine habitat	○ Wind speed and direction
○ Habitat use by marine mammals	○ Dissolved carbon dioxide
○ Extent of intact coastal riparian vegetation	○ Dissolved oxygen
<i>Community Composition</i>	○ Nutrient concentrations
○ Change in community composition of estuarine habitat	○ Ocean pH
○ Change in community composition on sandy shorelines	○ Sea surface temperature
○ Change in community composition on rocky shorelines	○ Ocean salinity
○ Change in community composition in kelp forests	○ Sea level height
<i>Key Species/Groups</i>	○ Freshwater runoff (sediment, volume, timing and temperature)
○ Shorebird abundance during spring/fall stopover	<u>Human Pressure Indicators</u>
○ Population size of breeding seabirds	○ Number, size, location and type of finfish and shellfish farms in BC*
○ Abundance and size of key crustacean species	○ Fishing pressure*
○ Urchin abundance and distribution	○ Coastal population density*
○ Eelgrass distribution and biomass	○ Shoreline armoring
○ Forage fish community composition	○ Square kilometers of forestry, agriculture, urban land cover*
○ Herring spawn distribution	○ Number of pacific salmon released from hatcheries
○ Benthic fish community composition	○ Habitat destroyed by fishing
○ Invasive / non-native species distribution and abundance	○ Coral and sponges occurrences in trawl observer data
○ Kelp forest canopy cover	○ Seafloor alteration via dredging, drilling, dumping and/or construction
○ Salmon abundance and distribution of adults by species	○ Anthropogenic ocean noise at specific locations
○ Chlorophyll-a from satellite and/or in situ surveys	○ Marine spill events in BC coastal waters
○ Phytoplankton biomass and species diversity	○ Water quality (turbidity, pollution, nutrient enrichment)
○ Sea otter abundance and distribution	○ Area of sediment with contaminant levels above SQ guidelines
○ Seal abundance	○ Shifts in point sources of pollution
	○ Footprint of commercial and recreational boats



Summary

The NVI Marine Plan was collaboratively developed by the Nanwakolas Council, and the Province of BC within the larger MaPP initiative (Marine Planning Partnership Initiative 2015). Using an ecosystem-based approach, the NVI Marine Plan includes a vision for the plan area as well as objectives and strategies for marine management in relation to thirteen topics of importance. Guardian Watchmen and monitoring and enforcement feature prominently in the NVI Marine Plan which includes an explicit objective to increase and enhance First Nations role in monitoring, surveillance and enforcement. MaPP has developed a list of indicators to monitor ecological integrity, human well-being and governance for use in marine plan implementation (King and Day 2014). The ecological dashboard indicators include ones that could be monitored by Guardian Watchmen programs (e.g., eelgrass distribution and biomass may be an indicator that would also be relevant for monitoring in Provincial protected areas, such as the Quatse Estuary Wildlife Management Area).

3.3 Provincial government documents

Overview

Our review of provincial government documents covered programs, policies, and aspects of service plans relating to the inspection, monitoring, and enforcement of marine activities within the relevant divisions of FLNRO and MoE. Within both Ministries there are various divisions that have environmental monitoring responsibilities, and formal protocols exist governing referrals of issues within and amongst the different ministries. An organizational chart of relevant divisions is provided in Figure 3. More detailed organizational charts of Ministry divisions are provided in Appendix D, as well as a summary of the primary legislation for which each Ministry has enforcement authority.

Monitoring and enforcement activities can be separated into several broad categories. These categories distinguish amongst different types of monitoring actions: environmental monitoring (effectiveness and ambient), compliance monitoring (promotion and verification), and enforcement (MoE 2007). In the following paragraphs we provide an overview of the responsibilities of each relevant FLNRO and MoE ministry division and, where applicable, we refer to programs, policy statements, and service plan goals that are related to, and supportive of, a role for Guardian Watchmen in monitoring.



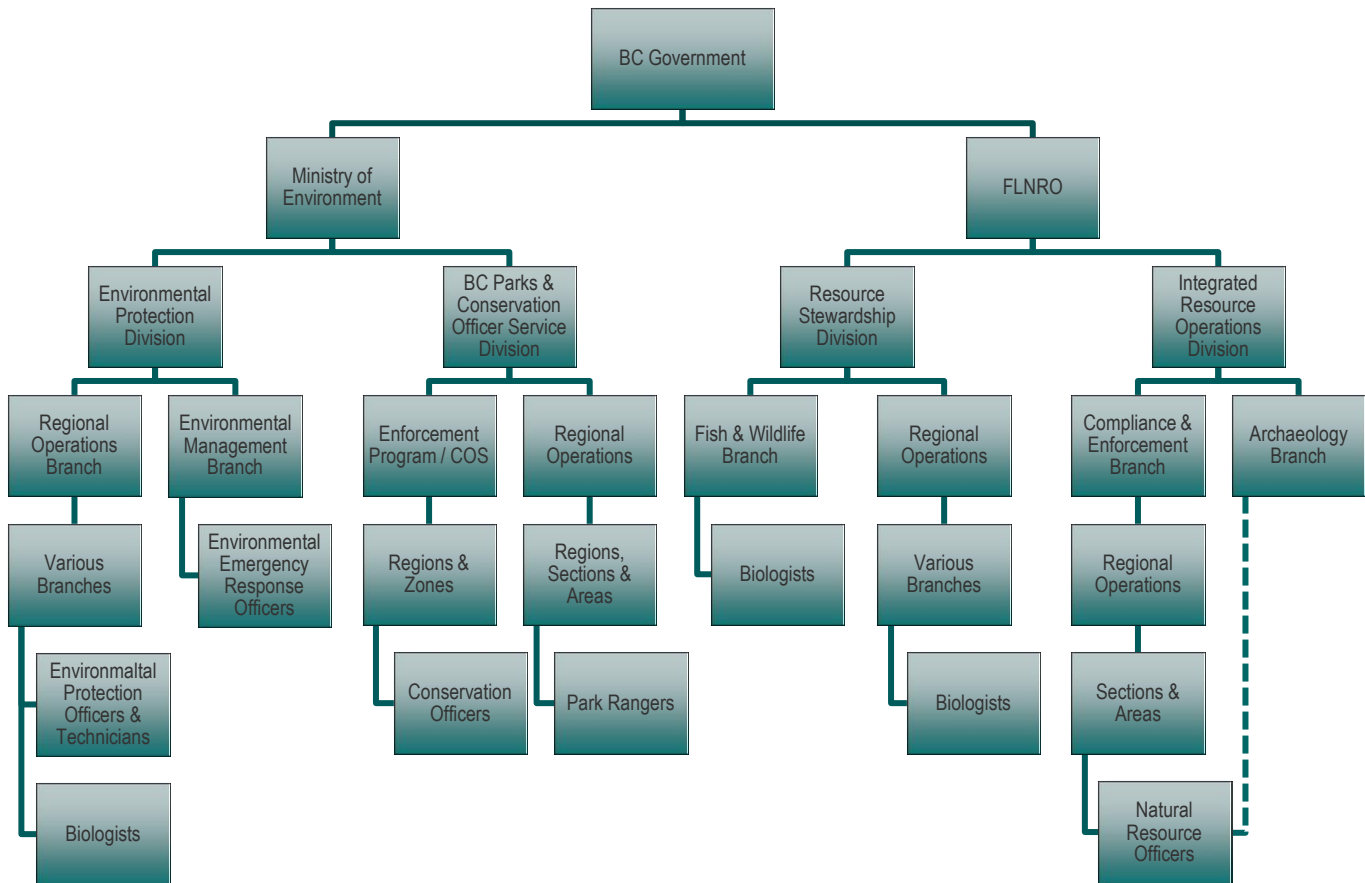


Figure 3. British Columbia government ministries and divisions related to monitoring, compliance and enforcement. The dashed line indicates how NROs incorporate Heritage Conservation Act policy and legislation into operations.

Compliance and Enforcement Activities within FLNRO

Within the Regional Operations Branch of the FLNRO Compliance and Enforcement Branch, Natural Resource Officers (NROs) are designated to monitor and enforce the legislation and associated regulations that fall within the Ministry’s mandate. The key functions of an NRO are: (1) educate and maintain a field presence to promote compliance, (2) conduct inspections, including routine and scheduled, in response to complaints or incidents, or to enforce a Minister directive (e.g., tenure requirements for helicopter logging drops), (3) conduct investigations when non-compliance of a permitted party is alleged, and (4) take compliance and enforcement actions when necessary (FLNRO 2012, 2014). These functions are conducted in areas outside of protected areas unless requested by BC Parks.

Also within FLNRO is the Archaeological Branch, which is responsible for the protection and conservation of BC’s archaeological resources through the Heritage Conservation Act (FLNRO 2016). Archaeological sites with physical evidence of human use or activity



predating 1846 are protected by the Act, which prohibits excavation, alteration, or destruction of sites without a permit. When there is a proposed development project, an archaeological impact assessment is required to examine the potential for the project to disturb or alter archaeological sites (FLNRO 2016). It is during this process, and sometimes following development if so indicated in the development permit conditions, that archaeological sites are monitored and the state of the site is recorded. Archaeological site information is then stored within the Heritage Resource Inventory Application (HRIA), within which there is a specified format for storing information. Access to the HRIA can be requested through the Archaeology Branch (FLNRO 2016). NROs are responsible for collecting information, and reporting, on archaeological sites (Queen's Printer 2016).

Objectives and strategies within FLNRO's 2015/16-2017/18 Service Plan highlight areas where there could be collaboration with Guardian Watchmen. Objective 2.1 is: "sustainable natural resource management through effective policy, legislation and external relationships", and strategies within it include fostering relationships with First Nations to aid in achieving provincial stewardship objectives (FLNRO 2015a). Objective 2.3 is: "development and use of natural resources is in accordance with the Ministry's legislative and regulatory framework", and it identifies working cooperatively with first Nations to manage land and natural resources as well as to better understand and align provincial and First Nation interests as a strategy (FLNRO 2015a). Objective 3.1 is: "natural resource decisions and dispositions support community needs and provincial priorities", and it states that the government should strengthen the contribution of historic sites to community identity, economic health, First Nation cultural values, and environmental stewardship (FLNRO 2015a).

FLNRO's Service Plan also includes performance measures associated with overarching goals. Goal 2 of the Service Plan is: "coordinated, sustainable management of BC's natural resources" (FLNRO 2015a). Its eighth performance measure is related to the province's ability to monitor statutory requirements within resource management, which is measured as compliance and enforcement presence (actual time over operational capacity) (FLNRO 2015a). The performance measure baseline established in 2013/14 was 70% presence and the target for 2017/18 is 78%. Although the 2014/15 target was 72%, actual compliance and enforcement presence was only 69%. The 2014/2015 Service Plan Report explains that field presence was limited by difficult winter weather conditions and an increased need for more complex investigations, which reduced the availability of department human resources for field activity (FLNRO 2015b). However, failure to meet the target presence suggests that the capacity of NROs to conduct regular patrols may be stretched, which presents an opportunity for Guardian Watchmen involvement.

Compliance and Enforcement within MoE

Within MoE, the majority of compliance and enforcement activities are the responsibility of The BC Parks and Conservation Officer Service Division (which is divided into the Conservation Officer Service and Regional Operations for BC Parks), and the Environmental Protection Division. Two other divisions with MoE are involved in compliance



and enforcement. Within the first of these, the Water Stewardship Division, Water Stewardship Officers undertake inspections of water licences. The second, the Environmental Assessment Office, has Environmental Assessment Compliance Officers who coordinate with other agencies to provide oversight related to projects that have successfully completed an environmental assessment and to ensure that they are adhering to certificate conditions (MoE 2016a). Environmental Assessment Compliance Officers also have the designation as Natural Resource Officers (NROs). The Ocean and Marine Fisheries Division, does not have any direct compliance and enforcement responsibilities. However, this division is notable because it sits on committees with the federal government and defends provincial interests in the federal *Fisheries Act* and *Oceans Act*. Moreover, the division collects data from licensed aquaculture facilities to assist the Ministry of Agriculture and Lands in ensuring compliance with the BC *Fisheries Act* and the *Fish Inspection Regulation* (MoE 2007). The Conservation Officer Service (COS), BC Parks, and Environmental Protection Division (EPD) are discussed in more detail in the following three sections.

Risk is the primary factor used to prioritize MoE compliance and enforcement actions (MoE 2007). However, policy direction within MoE also emphasizes the importance of both environmental monitoring and compliance data in determining Ministry compliance priorities, including decisions regarding the allocation of resources and coordination and planning of compliance activities (MoE 2007). Despite the emphasis on the importance of environmental monitoring data, the Compliance and Enforcement Framework also stresses the importance of “shared stewardship” (MoE 2007); this suggests that the Ministry is looking to the public (individuals and organizations) to take on increasing responsibilities regarding environmental and compliance monitoring.

The Ministry of Environment and Environmental Assessment Office 2014/15-2016/17 Service Plan includes a variety of strategies that seek to increase collaboration with or the role of First Nations in stewardship and resource management. For example, Objective 3.3 is: “protect and manage natural values in parks and protected areas”, and a strategy within it states that the Ministry should “increase collaboration with First Nations in protected areas management and planning” (MoE and EAO 2014a). However, the 2014/2015 Annual Service Plan Report contains no discussion of results for any of the strategies targeting First Nations roles or collaboration (MoE and EAO 2014b).

The Conservation Officer Service

The COS is the branch of the MoE with the highest level of enforcement designation. Each Conservation Officer (COs) must undergo rigorous training to become a law enforcement officer, which includes a six-month training program at the Western Conservation Law Enforcement Academy (MoE 2015). The Authority Regulation of the *Environmental Protection Act* prescribes 24 provincial Acts (and associated regulations) under which members of the COS have authority. Members of the COS also have authority under six federal statutes (MoE N.D.). The COS is divided into three branches: regional operations (where most COs work), planning and business practices, and provincial operations, which



consists of the commercial environmental investigations unit, special investigations unit, and intelligence analysts.

The law enforcement authority of a CO cannot be delegated to other parties because their enforcement authority comes from statutes and they are required to meet minimum CO qualifications and complete required training. Nevertheless, the *COS Program Plan* indicates that the MoE does envision a greater role for stewardship groups within CO activities. The *Program Plan* direction acknowledges the benefits of: “formalizing partnerships with stewardship groups to enable them to assist the COS in providing compliance and outreach services that help protect the environment and further provincial stewardship goals” (MoE N.D.). Furthermore, the *Program Plan* directs the COS to “see[k] and champio[n] opportunities to engage First Nations communities to build relationships, and provide support and opportunities to work together in the development of mutually beneficial compliance activities” (MoE N.D.).

BC Parks (Regional Operations)

Within BC Parks, Park Rangers, Area Supervisors, and Protected Areas Section Heads undertake a variety of compliance monitoring and enforcement activities within protected areas. Additionally, Park Rangers, biologists, and technicians monitor environmental conditions to assess policy or program effectiveness (e.g., water quality).

Several important policy and program documents within BC Parks point to the division’s commitment to increasing collaboration with First Nations in park and protected areas management. For example, the BC Parks Program Plan (2008) states that “BC Parks is committed to respecting First Nations by recognizing the contemporary role of First Nations in park and protected areas management. In doing so, we will continue to work with First Nations to ensure that traditional and scientific management techniques are integrated, and effective management is carried out in a collaborative, respectful manner.” Moreover, Objective 2 is: “British Columbia’s diverse First Nations heritage is respected, preserved and enhanced”, and it includes the strategy to “identify and recognize the contemporary management role of First Nations in parks and protected areas to generate social, cultural and economic benefits for First Nation communities” (BC Parks 2008). Performance measures are specified in Appendix 3 of the BC Parks Program Plan, and include measuring the “number of initiatives that substantively engage First Nations in the management of natural or cultural values in parks and protected areas” (BC Parks 2008). However, no reporting on the progress of this performance measure could be found.

The BC Parks Conservation Policy echoes the commitment stated in the Program Plan to share the role of park management with First Nations, and recognizes the importance of First Nations in cultural heritage management. The BC Parks’ Long-Term Ecological Monitoring Program provides an example of how BC Parks is involved in ecological monitoring and data collection. This program, which was started in 2011, seeks partners and volunteers to aid in data collection on five different biomes, one of which is intertidal ecosystems (e.g., the Mitlenach Island Nature Provincial Park site, which is southeast of



Quadra Island in the northern Strait of Georgia) (BC Parks 2015). Although there are no currently established sites within the MaPP NVI area, ecological monitoring and data collection is an activity in which there could be collaboration between First Nations and the Province.

Environmental Protection Division

The EPD “works to prevent pollution and promote and restore environmental quality” (MoE 2016). Within the EPD, the Regional Operations Branch contains nine regions, one of which is the Vancouver Island region. Staff at these regional offices deliver EPD programs and policies and ensure that there are safe discharges into BC’s water, land and air (MoE 2016). Working in the field within the Regional Operations Branch are Environmental Protection Officers and Environmental Protection Technicians. These individuals write and review permits, and conduct meetings after inspections to discuss how compliance can be achieved (MoE 2007). At the Nanaimo office, there are six Senior Environmental Protection Officers, one Environmental Protection Officer, and three Environmental Protection Technicians (BC Government 2016). The Regional Operations Branch also employs multiple Biologists, who provide scientific expertise in developing and reviewing regulatory requirements (MoE 2007).

The Environmental Management Branch within the EPD is responsible for several regulatory programs, including hazardous and industrial waste management, waste and environmental database management, environmental emergency response and spill reporting, integrated pest management initiatives, and land remediation management and certification (MoE 2016). The Environmental Emergency Management Program develops emergency management plans and participates in inter-governmental and cross-jurisdictional response planning. Within this branch, Environmental Emergency Response Officers (EEROs) work in the field, and on Vancouver Island there are two EEROs in the Nanaimo office. Upon arriving at the site of spill, the Province will either monitor and augment an industry led response or assume full response management (if no responsible party or the response is deemed inadequate). For complex incidents, an Incident Management Team with specialized training may be deployed.

Summary

The majority of inspection, monitoring, and enforcement activities in BC are undertaken by the Compliance and Enforcement Branch (Regional Operations) within FLNRO, as well as the BC Parks and Conservation Officer Service Division (Conservation Officer Service and Regional Operations for BC Parks) and the Environmental Protection Division (EPD) within MoE. Enforcement officers within FLNRO are called Natural Resource Officers (NROs). Within MoE, Conservation Officers hold the highest level of enforcement authority in all areas. Park Rangers, Area Supervisors, and Protected Area Section Heads undertake a variety of compliance monitoring and enforcement activities exclusively within Parks and Protected Areas. Additionally, many Rangers are designated as Natural Resource Officers, which gives them enforcement powers outside of the parks and protected areas.



Environmental Protection Officers and Technicians conduct compliance and enforcement activities within the Environmental Protection Division.

Provincial policy and program documents reviewed demonstrate that provincial compliance and enforcement agencies are taking direction from overarching policies like the *New Relationship* (2008), which mandates a government-to-government relationship with First Nations in resource management. Therefore, because monitoring is a key aspect of resource management, space exists at a policy level for Guardian Watchmen programs to take on greater monitoring responsibilities. BC Parks in particular has developed policies and statements of program direction that strongly support an increasing role for First Nations in park and protected areas management. Specific opportunities within the MaPP NVI Marine Plan area for potential provincial and First Nation collaboration include monitoring and compliance at archaeological sites and within BC Parks Conservancies.

3.4 Other Jurisdictions

Coastal Stewardship Network on the Central and North Coasts of BC

The Coastal Guardian Watchmen Network (now named the Coastal Stewardship Network) began in 2005 as a program with the Coastal First Nations - Great Bear Initiative. Since 2005, the network has supported First Nations resource stewardship offices along the central and north coasts of BC in managing, monitoring, and protecting their territories (Coastal Stewardship Network 2015a). More specifically, the network:

- Provides support to increase the capacity of stewardship offices.
- Facilitates communication and networking between First Nations stewardship staff.
- Supports the development of a regional monitoring system.
- Develops outreach materials to raise awareness about stewardship office activities.

As an integral part of the network, Guardian Watchmen monitor and patrol their territory. They are the “eyes and ears” within their territory, documenting activities that are occurring and gathering information about wildlife and ecosystems. Although the Guardian Watchmen derive their jurisdiction and authority from traditional laws, the Guardian Watchmen vision states their willingness and desire to collaborate with Canadian government officials on resource management initiatives: “we will work with the federal and provincial government (through management agreements that respect the title and rights of First Nations) to ensure coordinated and robust monitoring and enforcement throughout our territories” (Coastal Stewardship Network 2015a). Many First Nations stewardship offices maintain positive and mutually supportive relationships (e.g., conduct joint patrols with federal fisheries officers) but this is often ad-hoc or opportunistic as opposed to a consistently coordinated, and more training has been identified as a barrier to higher levels of collaboration (Milko 2015). Recently, the CSN partnered with VIU as well as the Nanwakolas Council to deliver an extended three-year Stewardship Technician Training program.



While conducting activities within their territory, Guardian Watchmen collect data using a Regional Monitoring System (RMS), which began in 2009 (Gwa'sala-'Nakwaxda'xw Guardian program began in 2010 and has participated in the RMS). The RMS includes a CoastTracker data collection device that automatically uploads data into a database to support stewardship offices in the collection, storage, analysis and use of data (Coastal Stewardship Network 2015a). The RMS was developed to use standardized data collection methods that are the same as Canadian government agencies (e.g., spawning salmon data is standardized with DFO; cultural and ecological site visit data can be used in co-management reports (Kotaska 2013)). Kotaska (2013) reports that such data has already been used by CFN member Nations to negotiate with DFO for permanent and seasonal crab fishing closures in some areas. The CSN undertook an evaluation of the RMS in 2013 and is currently in the process of redeveloping the system to increase opportunities to meet priority decision-making needs within Nations (Olson et al. 2013).

Insights from the CSN for the Ha-ma-yas Stewardship Network include confirming how valuable it is to have standardized training and data collection methodologies. Additionally, connecting data collection to data uses and management objectives within each Nation makes the Guardian program more valuable for the Nation. Lastly, the Ha-ma-yas Network can partner with the CSN to take advantage of technological advances as well as for training purposes (both of which are currently being pursued).

Australian Rangers “Working on Country” Program

Working on Country was established by the Australian government in 2007, and provides multi-year funding for training and employment of Indigenous peoples to work in environmental protection and management in their territories (Department of the Environment, Australian Government. 2015). Through the program, the Australian government has provided over \$244 million (in Australian dollars) since its inception to June 2013. As of November 2015, there were 775 Rangers employed in the program (full-time equivalent contracted positions), and 108 Indigenous Ranger Groups (Australian Department of the Prime Minister and Cabinet 2015). When a Ranger is selected for the program, they undergo a skills assessment and work with one of several registered training organizations to develop a training plan. They are then hired into a full-time position with salary and undergo a “stepwise” training program with multiple levels of certification (Department of the Environment, Water, Heritage and the Arts 2009). As of June 2012, all Ranger projects were managing matters of National Environmental Significance (under the Australian *Environment Protection and Biodiversity Conservation Act 1999*), such as wildlife and invasive species management and management of culturally significant places (Commonwealth of Australia 2013). A specialized Indigenous Ranger program “aims to improve marine conservation” along the Far North Queensland coast, and focuses on dugong and turtle conservation management (Australian Department of the Prime Minister and Cabinet 2015).



There are several lessons from the success of the Working on Country Program that are applicable to Guardian Watchmen programs in the NVI region. First, Rangers are not given legal authority to enforce regulations, but rather work in environmental protection, conservation and land management. Also, training is standardized and offered by government-accredited organizations. These program aspects address potential liability issues of by ensuring that all Rangers are trained to a standard that is recognized by the government. Second, long-term, reliable funding from the government provides security that the program will continue long-term. Thus, there is job security for Rangers, as they are hired to fill positions within government organizations. There is a clear professional development path for Rangers, career development opportunities are offered regularly, and Rangers are paid while undergoing training. Together, these features address issues of staff turnover and support stewardship programs in building capacity (Milko 2015).

Gwaii Haanas Management and Guardian Watchmen in Haida Gwaii

Gwaii Haanas National Park Reserve and National Marine Conservation Area Reserve is an example of an area in which there is cooperative management between a First Nation (the Haida) and the Canadian federal government and there is a Guardian Watchmen program (Parks Canada and Fisheries and Oceans Canada (DFO)). In 1993, after several years of negotiation, the *Gwaii Haanas Agreement* was signed between the Council of the Haida Nation (CHN) and the government of Canada, which resulted in the Gwaii Haanas Archipelago Management Board (AMB), consisting of two Haida and two Parks Canada representatives on a consensus decision-making board (Lee 2012). The *Gwaii Haanas Agreement* included a statement of intent to protect waters around Gwaii Haanas, which then occurred in 2002 with the *National Marine Conservation Areas Act*. Upon the signing of the Gwaii Haanas Marine Agreement (2010), the AMB's mandate was extended into the marine area and additional members were added so that there was representation from CHN, Parks Canada, and DFO (Lee 2012). In addition to the AMB representation, 50% Haida representation is pursued at all levels of organization related to the management of Gwaii Haanas. This translates into support for training and capacity building in the Haida community.

A Guardian Watchmen program has existed in Gwaii Haanas since 1981, when the Skidegate Band Council and the Haida Nation established the Haida Watchmen Program, which consisted of volunteers acting as Guardians at several culturally important sites in Gwaii Haanas during the summer season (CSN 2015b). Guardians both protected the sites and acted as interpreters and guides to visitors (CSN 2015b). In 1991, Parks Canada entered a contract with the Skidegate Band Council to pay the Watchmen ("The Guardian Watchmen" 2010). The Guardian Watchmen currently are part of the Coastal Stewardship Network, and since the establishment of the AMB have continued their roles of protecting Gwaii Haanas and educating park visitors (CSN 2015b).

Although the description above is just a brief overview of the complex management situation that played out over several decades, a key insight relevant for the NVI area relates to the benefits of long-term government-to-government negotiation and the



relationship building that can occur during the process. Although it was a long and challenging process, the establishment of the AMB allows for First Nations interests to be incorporated into management plans at their inception. It also allows for the designation of clear First Nation and Federal roles and responsibilities for operations. Additionally, this situation is an example wherein a high level of First Nation representation on management boards as well as involvement in operations occurs. It is a situation in which Guardian Watchmen have entered into contractual agreements with the Canadian government that involve financial compensation.

Summary

We reviewed three examples of other jurisdictions where aboriginal groups have been successfully engaged in monitoring and compliance activities with other governments: the Guardian watchmen of the CSN, the Australian Rangers from the Australian “Working on Country” program, and Gwaii Haanas co-management in Haida Gwaii. Key insights from these other programs relevant to the Ha-ma-yas Stewardship Network include the benefits of: standardized data collection with a focus on connecting data collection to decision-making needs; strong government support to ensure long-term sustainability of the program and career opportunities for participants in it; incorporating the interests of all parties at the highest level along with clarified roles and responsibilities for operations level activities; and Guardians performing duties related to their knowledge of their territory (e.g., guides or interpreters).



4 Insights from Key Informant Interviews

4.1 First Nations Interviews

Status of Guardian Watchmen Network

The Guardian Watchmen Network began in April 2015. Interviewees discussed how during the first summer season, Guardian Watchmen programs have focused on exploring and evaluating the condition of their marine territories, dealing with program logistics, and identifying other potential organizations with which to collaborate.

Of the seven Nations that are part of the Nanwakolas Council, there are currently five Nations with Guardian Watchmen programs. Each of these Nations have between two and four Guardian Watchmen. Several interviewees discussed the benefits of having Guardians that are employed permanently full-time in order to build the program.

There is a great deal of variability in the types of activities that the different Nations' Guardian programs have undertaken. Several factors affect this, including the different ways in which programs interact with their Nation's governing council, different types of funding opportunities, different historical and geographical context, and different ways in which the Guardians have implemented their programs.

In regards to the way the Guardian Watchmen programs interact with other governing council, the degree to which each Nation has embraced their Guardian Watchmen program, and the degree to which programs interact with managers and decision-makers in their Nation, varies. These interactions are discussed further in the management section below.

Interviewees highlighted the marked differences amongst Nations in the size of human populations and magnitude of industrial activities within their territories. This is significant because location, population size, and industrial activity within a territory all affect funding and collaboration opportunities. Some of the industries that interviewees identified include forestry, fishing, aquaculture, and tourism and recreation. Nations also differ in whether members live in their territory and how familiar they are with it. For example, because the Tlowitsis Nation has not historically had a reserve within their territory, Guardians must travel several hours each day to access their territory, and were initially unfamiliar with much of the remote area that comprises their territory.

Given that the Guardian Watchmen programs are in their infancy, the knowledge, skill sets, and network of relationships of newly hired Guardians have all shaped the direction and activities that each program has pursued. Interviewees discussed how previous relationships have aided in building collaborations and existing skill sets have allowed them to pursue activities such as scientifically robust data collection. Interviewees also stated that



the training coordinated through the Nanwakolas office has been beneficial for expanding skill sets and for developing relationships between Guardians from different Nations.

The biggest challenges that Guardian programs have experienced so far have been securing ongoing funding and limitations on what Guardians have been able to accomplish due to existing funding (e.g., limitations on the number of days that the Guardians can be out on the water). Other challenges that were identified included acquiring boats and equipment, managing inexperienced Guardians, and figuring out how to collect information in a useful way. Despite these challenges, Guardian Watchmen program successes have included developing and implementing training programs, building relationships, getting more familiar with their territories, and starting data collection. One program was able to conduct interviews with Elders to prioritize Guardian Watchmen program activities, which have subsequently been used to guide program direction.

All interviewees stated that Guardian Watchmen programs are valuable. Interviewees indicated that Guardian Watchmen are beneficial because they are stewards of their territory. They are involved in looking after cultural heritage sites, monitoring and management of marine resources, and interacting with tourists to encourage responsible tourism. Additionally, the Guardian Watchmen programs are valued because they gather information relevant to their Nation's interests and that data is owned by their Nation. The Guardian Watchmen programs were also identified as being valuable because they assert sovereignty over their Nation's territory through their presence on the water.

"To me, the Guardian Watchmen are a very important thing to have, there's no single group that can police an area that big...it'll have to be a concerted effort...if we all work together, we can watch each other's back."

Monitoring, Enforcement & Data

Interviewees indicated that they have been collecting a variety of information in both the marine and terrestrial environments, including data related to:

- cultural heritage sites
- cultural cedar inventory
- eelgrass
- stream habitats
- commercial & recreational fishers
- incidental wildlife sightings (e.g., whales, bears)
- salmon
- clams (including clam gardens)
- crabs
- prawns
- rockfish
- seals

Currently, Guardian Watchmen programs within each Nation are assessing the situation within their territories and independently determining what to monitor. Some data are collected because it is required by a funding agreement or because it can bring in funding



for the Guardian Watchmen program. For example, some interviewees discussed collaborating with other organizations to develop proposals in which their Guardian Watchmen program will get compensated for collecting data. They also noted the need to determine what types of data other organizations are collecting so that they do not duplicate existing, and ongoing, efforts.

“Right now what we’re trying to do is monitor and assess our traditional territories and see where projects need to be done...see the health of the ecosystem and work from there, see where we can help.”

Data collection is generally determined by program capacity and Guardian skills as opposed to being gathered according to a previously directed schedule of priorities. For example, one Nation was limited in the days they were able to use a boat and so ended up collecting more terrestrial data than marine data (participants indicated that without this limitation they would monitor equally in terrestrial and marine environments). Also, data collected tends to be related to cultural or natural heritage resources on which Guardian Watchmen have monitoring training.

Interviewees discussed how having standardized data collection methodologies amongst Nations is beneficial because it allows Nations to coordinate their training and data analysis. Interviewees also discussed the importance of collecting good quality data and the need for Guardians to know why data is being collected so that they can collect it properly.

Interviewees mentioned that it is useful to have a data collection device that automatically inputs data into the Nanwakolas database. However, they also highlighted concerns about how long it takes to enter information into the device and how often it is out of the range of the service. Interviewees stated that having data stored centrally in the Nanwakolas office works well (staff in the Nanwakolas office currently analyze and provide data for Nations).

Management

As mentioned above, interviewees indicated that with Guardian Watchmen programs being in their first year, they have focused on undertaking assessment activities, as opposed to those directed by management priorities. Interviews with Guardians from multiple Nations also revealed that the relationship between Guardian Watchmen programs and Chief in Council varies among Nations, as do corresponding links between management priorities and program operations. Interviewees from one Nation indicated that because their Council has provided financial support and is invested in determining program direction, potential for their program to grow and contribute to their Nation’s priorities appears boundless. Interviewees from another Nation explained that they have not yet connected with their Council to determine the types of activities that their Council would like them to pursue. They also mentioned that they must rent equipment from their band office, suggesting that their Council is less invested in program success. However, they also emphasized that their Guardians have conducted interviews with Elders to identify program priorities, which has proved to be useful for guiding program direction.



Interviewees highlighted that although the types of things they are monitoring are important to their Nation, they have not yet connected their data collection to specific management or decision-making uses. When asked what data they could collect that they think would be useful for protecting and managing their territory, interviewees had a wide variety of responses. These included ecosystem status and trend monitoring (e.g., data about crab populations or water quality) as well as compliance monitoring (e.g., whether logging activities such as helicopter drops are in compliance with permitting requirements). They also discussed how collecting data to establish improved and updated ecological baselines would be useful for informing management plans, marine use plans, or land use plans.

Several interviewees expressed concern that if Guardian Watchmen programs are not pursuing activities and/or gathering data that is critical for the functioning of their Nation, that the programs may not be seen as valuable enough to keep. One interviewee emphasized that being able to display the usefulness of data is useful for securing program funding. Another pointed out that it would be beneficial for Nations to determine the types of questions that they want answered with the data that is collected by the Guardian Watchmen.

"[programs] definitely [need to] establish the Nation level value first because [the Nations] need to know what they're getting out of the programs."

Interviewees also underscored the value of having data connected to the Nanwakolas referrals system so that it can easily be used in the process of responding to referrals.

Capacity

Interviewees identified Guardian program limitations related to finances, equipment and training. Securing ongoing funding was identified as the most critical aspect for the continuation of programs. Currently, programs are funded by several sources some of which will only provide funds for a limited time. Multiple interviewees discussed how piecemeal funding that is not guaranteed into the future undermines job security and can discourage external organizations from collaborating with Guardian Watchmen programs because they can be seen as potentially temporary or unreliable. One Nation pursued developing an ecotourism business with the idea that it would support the Guardian Watchmen program. However, the business did not perform as well as hoped and so whether they will continue to pursue ecotourism is being re-evaluated.

The degree to which Nations have embraced their Guardian Watchmen program affects their financial prospects. For example, one Nation is required to rent the boat that their Nation owns and this has greatly restricted the Guardian Watchmen activities. Interviewees from another Nation discussed how their Council has fully funded their boat and is topping up their Guardians' wages. This has further implications for future planning in that the Guardian Watchmen program that needs to rent their boat is primarily concerned with figuring out how to secure funding for the upcoming year. In contrast, the Nation that has strong Council support is able to focus their efforts on thinking about their monitoring plans and schedules for the upcoming year.



Interviewees from multiple Nations indicated that they are limited in their ability to access and/or to own equipment. For example, some Guardian programs have one or more boats while others need to rent a boat (as mentioned above). Additionally, participants noted that it is important for them to have the necessary sampling equipment for monitoring fish and other marine life (e.g., crab traps). Interviewees valued existing opportunities to share equipment through the Nanwakolas office (e.g., water quality sampling equipment), but also noted that it may be difficult for Nations who are not close to the Nanwakolas office to access this equipment.

The number of Guardians employed, as well as Guardian skill sets and training, were highlighted by interviewees as additional aspects that are important to program capacity. They mentioned that it is helpful to have at least three Guardians on staff so that if one Guardian is unavailable, the other two can still safely conduct in the field activities in their territory. Interviewees also discussed how the Guardian Watchmen training is valuable because it has and/or will build the capacity of Guardians to pursue a wider range of activities and collect high quality data. For example, Guardians were introduced to monitoring techniques for several wildlife species (e.g., clams and crabs) and this training has allowed Guardians to gather data related to these species in a systematic manner.

Future Directions

All interviewees emphasized the value of the Guardian Watchmen programs and the Hama-yas Stewardship Network, as well as the benefits of having it continue to grow into the future. Multiple interviewees identified a lack of secure ongoing funding as a barrier to program development.

Multiple potential opportunities were identified for Guardian Watchmen to pursue activities that could bring in funding. Interviewees from multiple Nations identified the value of collaborating with other organizations, including non-profit organizations, industry, and government. They discussed working with the forest industry to monitor compliance or securing contracts with government to monitor wildlife populations. One Nation has successfully collaborated with non-profit organizations, which has included being compensated for conducting monitoring.

"I feel like we are a just a seedling in the ground and there is so much potential for us to grow into this beautiful tree."

Interviewees noted that collaboration opportunities vary for the different Nations depending on the human activities taking place in their territory. Several interviewees noted that previous agreements with BC Parks may foster further beneficial working relationships. However, they also recognize that relationships can occur at different levels within organizations and that in developing new relationships it is critical for Guardians to be aware of existing relationships between the Nanwakolas Council and the Provincial government.



Interviewees anticipated that Guardians would continue to pursue data collection and other activities that they have begun as well as monitor human use activities, gather baseline biological and physical data, play a role in harvesting food for community members (including tending clam gardens), and become first responders to oil spills and other emergencies. To help each Guardian program become more connected to their Council and more integral for their Nation's initiatives, one interviewee suggested having a dedicated manager to coordinate program direction and secure ongoing funding. It was also suggested that it would be useful to have a dedicated person to handle data in the Nanwakolas office.

Previous and planned Guardian Watchmen training was noted by interviewees as being an opportunity to increase Guardian Watchmen program capabilities. It was further discussed that training should not just be about building specific skills but also aimed at supporting professional development. Three Guardian streams were proposed, which would include basic training for all Guardians followed by additional training focused on either ecological monitoring, compliance monitoring, or enforcement. Interviewees also discussed how adding seasonal Guardians during the summer would increase capacity in the field during the busiest months.

Currently there is no monitoring, compliance or enforcement occurring in collaboration with the Province. In regards to compliance monitoring, interviewees believed that opportunities exist to collaborate with the Provincial government. However, they also acknowledged that there is a need for additional training related to understanding legislation and regulations so that Guardians will be able to identify when human use activities are not in compliance. Regarding existing compliance activities that Guardian Watchmen undertake, interviewees discussed how Guardians contribute to compliance promotion through their presence on the water, and indicated that with a deeper knowledge of provincial legislation, they could encourage compliance by educating resource users. Interviewees also highlighted that Guardian involvement in compliance monitoring could be at the expense of conducting revenue generating activities and questioned whether Guardian programs would get compensated for undertaking provincially mandated activities.

In terms of enforcement, Guardians do not conduct any enforcement activities, and interviewees do not see this as an activity in which Guardians will be involved in the near future. However, interviewees do see opportunities for Guardian Watchmen to contribute to enforcement through, for example, getting in contact with local conservation officers when appropriate.

4.2 Provincial Interviews

Monitoring, Enforcement & Data

Provincial compliance and enforcement officers ensure that individuals and companies are in compliance with environmental legislation and regulations. Staff conduct inspections to



confirm that license holders are not breaching environmental standards set by regulations and the terms of their permits, but do not generally undertake ecosystem status and trends monitoring. All compliance and enforcement staff (i.e., FLNRO NROs and MoE COs, Park Rangers, and EPD staff) undertake a range of compliance and enforcement actions with Conservation Officers in MoE holding the highest level of enforcement authority.

Environmental monitoring, which includes ambient monitoring (e.g., water or air quality) and effectiveness monitoring (evaluates the effectiveness of a particular program in improving environmental conditions; e.g., status of a species at risk) and is conducted by biologists and other registered professionals within the MoE Environmental Sustainability and Strategic Policy Division. FLNRO is responsible for effectiveness monitoring of specific *Forest and Resource Practices Act* (FRPA) “values” under their Forest and Range Evaluation Program (FREP), and conducts forest and wildlife inventories in terrestrial environments.

Responses by provincial government staff working in FLNRO and MoE suggest that monitoring and compliance verification activities (i.e., site visits) follow a regular schedule when time and capacity allows. However, when and where there are large volumes of complaints, the majority of inspections are reactionary, and lower-priority areas and activities are not patrolled. For example, interviewees stated that for the FLNRO West Coast Region compliance and enforcement team in the Port McNeill office there is a balance between scheduled and reactive inspections; whereas in more southern areas, inspections are primarily reactive due to the different types and intensities of activities that occur in these areas. In general, agencies must prioritize where to focus monitoring activities and “triage” which issues to respond due to the size and remote nature of the NVI region, as well as the number of reported complaints (within the West Coast Region, FLNRO has received 700-800 complaints this year). Prioritization of both regular patrols and responses to complaints are based primarily upon the level of risk posed to human and environmental safety by non-compliance, principles in legislation regarding environmental and social priority areas, annual plans (based on compliance data from previous years), and the long-term experience of senior officers to know where they should be monitoring on a given date. Where good relationships with tenure holders exist, departments will largely rely upon self-reporting as opposed to conducting on-site visits to monitor compliance.

Within the NVI region, interviewees stated that BC Parks staff in the South Central Coast Area conduct on-site visits approximately 2 to 4 times per month during the summer and less in the winter, with not all sites visited each time. If an inspection is needed the level of rigour is issue specific, and within the last year approximately 5 to 10 inspections were completed. Staff make additional informal observations whenever they are in the field. Interview participants stated that within FLRNO, NROs within the West Coast Region are out in the field nearly every day. Officers use a float plane or helicopter at least once per week to conduct inspections in remote areas, and they generally observe conditions on land and in the water throughout the flight. They also have a 50-foot vessel that they use to conduct patrols at least one week per month from March-November and additional marine



patrols are undertaken using a smaller aluminum vessel approximately once every two weeks. Similar to BC Parks, not every site is visited during each patrol. Although much of the mandate of FLNRO is terrestrial, primary activities inspected within the marine environment are: wood transport (barge and booming), helicopter logging drops, and fish farm tenures. NROs also observe, record, and when necessary, report suspicious activities they encounter in the marine environment to Fisheries Officers within DFO.

The COS and BC Parks catalogue enforcement actions in the COORS database. Within BC Parks, inspection reports are generally completed by Park Rangers or Area Supervisors. Data is collected in various forms: Park Ranger reports as well as verbal reports from staff, park users, or other agencies. Depending on the severity of an issue, a formal complaint occurrence report may be completed, which would be entered into the COORS database. Park permit holders also submit annual user reports as a condition of their park use permit. FLNRO uses a complaint and inspection report system called Natural Resource Inspections Systems (NRIS). Approximately 800-1100 inspection reports were entered into NRIS last year, which is due to the fact that an entry is generated each time a NRO is in the field, and multiple entries can be generated each day (depending on the complexity of the inspection or issue investigated).

Management

Interviewees from both MoE and FLNRO stated that both systematically collected data and anecdotal information is used at an operational level for work planning and day to day decision making. Within BC Parks, analysis of compliance and enforcement trends and issues generally takes place at a Section Area level. Significant issues and trends may be raised during the Annual Management Planning process wherein compliance priorities for the next year are identified. Within FLNRO, information from NRIS is analyzed at a regional and provincial level to get communicated in a yearly report. At a regional level, compliance data from each year is used to set priorities (areas and activities of concern) in the annual regional implementation plan.

Collaboration & Data Sharing

Interviewees discussed examples of both provincial inter-agency and provincial-First Nation collaboration at an operational level; no examples of data-sharing were provided. At a provincial level, interviewees stated that protocols for inter-agency coordination exist, and are increasingly important given overlapping jurisdictions and limited provincial capacity. Protocols are limited to the formal process of referring enforcement issues; coordination of operational collaboration is generally ad hoc, issue based, or opportunistic (e.g., to reduce costs by sharing a helicopter when patrolling in remote areas). One interviewee highlighted the importance of geographical proximity to successful inter-agency collaboration: where officers from different departments share an office, or are located close to one another, they will collaborate on compliance and enforcement actions to optimize their use of equipment and for reasons of personal safety. In addition, MoE and FLNRO staff sit on committees



with federal agencies to advocate for provincial interests in relation to the federal *Fisheries and Oceans Act*.

Geographical proximity is also essential to building trust amongst different organizations, and so is likely to be particularly important for successful First Nations-provincial collaboration. Interviewees stated that the examples they'd heard of (i.e., on Haida Gwaii, or where relationships exist amongst the COS or BC Parks and a Guardian Watchmen program on the central coast) were all successful due to long-term operational relationships built on trust. One interviewee from FLNRO added that their department consults with and involves local First Nations when they have received complaints regarding violations of the *Heritage Act*. Following several complaints, the department will conduct a "blitz" (intensive patrol(s)) within the area, which will sometimes be done collaboratively with the local Nation.

In regards to program direction and policy documents, BC Parks is the only agency that has developed Collaborative Management Agreements with First Nations, which have included four Nanwakolas Member Nations: Gwa'sala-'Nakwaxda'xw First Nation, Mamalilikulla-Qwe'Qwa'Sot'Em First Nation, Da'naxda'xw/Awaetlala First Nation, and Kwiakah First Nation. Additionally, BC Parks has signed Reconciliation protocols, Strategic Engagement Agreements, Identification of specific Enhanced Access to Economic Opportunities, and undertaken collaborative development of Conservancy Management Plans. BC Parks staff in the Central Coast / North Island Section are currently developing relationships with Guardian Watchmen programs, and have stated that: "depending on the nature of the issue, First Nations may be informed if the infraction takes place within their territory. First Nations concerns may also be included in decision-making on how to address a compliance issue." Although there has been no coordination of enforcement actions, BC Parks staff have gone on field patrols and trips (e.g., to dismantle a cabin) with Guardian Watchmen from the Mamalilikulla-Qwe'Qwa'Sot'Em and Gwa'sala-'Nakwaxda'xw Nations.

Within the West Coast Region for compliance and enforcement in FLNRO, staff have a history of involvement with the north and central coast Guardian Watchmen program. Staff from the Port McNeill office presented at a Hakai conference several years ago on the ways in which Guardian Watchmen can support NRO activities through observing and reporting on suspicious activities. Interviewees also recalled sharing information regarding a specific issue with the Gwa'sala-'Nakwaxda'xw following a meeting with the Guardian Watchmen program several years ago, but noted that collaborative activities have not occurred in recent years.

Capacity

In general, the financial and human capacity of all provincial enforcement departments is stretched thin. Compliance and enforcement agencies must prioritize monitoring actions, and therefore make conscious decisions to patrol or not patrol certain areas. One interviewee pointed out that due to the costs associated with marine monitoring and the limited number of enforcement officers in a given area, many remote parks and protected areas (particularly those in marine environments) will not be patrolled even once a year.



The BC Parks Central Coast / North Island Section has five Area Supervisors who administer approximately 100 protected areas, some of which are within the MaPP NVI Marine Plan area. There are six Park Rangers in the Section who are responsible for an area larger than the MaPP NVI Marine Plan area. Additionally, compliance and enforcement is only one of the activities for which these staff are responsible. Given these limits, it is impossible for staff to have an intimate knowledge of remote areas. For example, in the South Central Coast Area within the Central Coast / North Island Section, there are 24 protected areas, all of which are only accessible by boat or aircraft.

“The capacity of virtually every provincial agency to be on the ground and detect problems is limited. And so any additional eyes and ears on the ground is valuable”

Within FLNRO, there are 21 compliance and enforcement staff across the west coast region, which is approximately half as many as 10 years ago. One interviewee stated that “right now we’re running on all cylinders [but] I think we do a good job of covering our area. Licensees do get responses from us, and we do interact with many other agencies as well.”

The relatively limited capacity of provincial agencies to cover remote areas creates a potential opening for collaboration with Guardian Watchmen. For instance, all provincial interviewees stressed that more eyes and ears are always welcome to monitor and report on environmental compliance issues. Yet, interviewees also questioned the amount of resources (human and financial) departments would be able to direct towards supporting Guardian Watchmen activities. One interviewee discussed working with volunteers and pointed out that there are considerable costs associated with any form of collaboration due to the need for training and supervision. Because provincial agencies already prioritize their activities, they do not necessarily have extra capacity to support Guardian Watchmen in non-priority areas.

Future Directions - Barriers

Interviewees raised concerns about collaboration with Guardian Watchmen programs but identified multiple opportunities that could serve as starting points. As discussed above, one potential barrier to collaboration or sharing of responsibilities is limited resources. Thus, if there are Provincial monitoring activities that Guardian Watchmen could conduct more efficiently than the Province, could the province financially support Guardian Watchmen? Although the responses from interviewees were not a conclusive “no”, responses did suggest that there would have to be substantial discussions and probably government-to-government agreements in order for such compensation to occur.

The concerns most often raised by interviewees had to do with legal liability and personal safety. Interviewees responded warmly to the idea of Guardian Watchmen conducting environmental monitoring and observe, record and report (ORR) activities, but were apprehensive when asked about compliance monitoring and enforcement. They emphasized that that there could be significant liability issues if the Province was to



delegate enforcement authority due to the inherent risk of conducting inspections on potentially non-compliant resource users. Additionally, interviewees highlighted the significant training and responsibility associated with enforcement activities in that enforcement officers need to have comprehensive knowledge of legislation as well as the Charter rights of resource users.

A related issue raised by some provincial interviewees is their worry that if collaboration does not go through legal channels (such as formal protocol agreements), Guardian Watchmen may not respect provincial laws and regulations where they feel that these laws are insufficient to protect the environment. If Guardian Watchmen are not willing to respect the limits of provincial laws, then their compliance monitoring activities could be interpreted by resource users as vigilantism.

“An inspection with the public or with an industry group is all fine and dandy until the minute you tell them they’re in trouble, and something could happen. And that’s when attitudes change, personalities change...it’s just human nature. You know, unfortunately no one can predict what contact will look like, and that’s why we always stress to people: Observe, Record, Report – no contact.”

Given that the federal government retains jurisdiction over marine fisheries, a few interviewees noted that a potential barrier to collaborative monitoring in the marine environment is the absence of the federal government from MaPP. Some interviewees also noted that overlapping claims and political tensions amongst First Nations can create a delicate situation for provincial agencies seeking to develop collaborative management agreements and undertake actions such as joint patrols, because the provincial government has an obligation to consult on activities with all First Nations whose territory they are in.

Future Directions - Opportunities

All provincial interviewees saw value in collaboration with Guardian Watchmen. The question was therefore not **if** the province and Guardian Watchmen should collaborate, but **how**.

Interviewees suggested several first steps that could be taken. First, nearly all of them stressed the importance of building trust at multiple levels: operational, management, and government-to-government. At an operational level, trust could be built between on the ground officers and individual Guardian Watchmen programs through joint patrols and assessments. At a management level, interviewees pointed out that Nanwakolas Council has developed a good relationship with people in FLNRO through their referrals processing work. At a policy level, First Nations governments and the Province could eventually develop protocols and memorandums of understanding that build towards co-management. As first steps towards higher level collaboration in resource management within the NVI Marine Plan Area, interviewees suggested that data protocols should be developed to ensure the standardization of indicators and data collection methods between the Province



and Guardian Watchmen, and that a roles and responsibilities document should be developed for Guardian Watchmen.

In addition to these important first steps, interviewees suggested a few areas that could be “low hanging fruit” for collaboration between provincial compliance and enforcement officers and Guardian Watchmen. These areas include FLNRO Conservation Lands, and BC Parks and Protected Areas due to existing collaboration between Parks and First Nations, as well as in the Broughton Archipelago in general due to the rich biodiversity and subsequent high levels of human recreation. Provincial interviewees saw opportunities for Guardian Watchmen to play an important role in environmental monitoring, compliance promotion (e.g., through being in uniform and visible on the water), and in conducting ORR activities.

“I don’t see barriers...it’s an evolution right? It’s not a magic formula, it’s the same as everything. If you have an understanding of what people do, if you’re building a relationship and there’s a trust piece there, there won’t be barriers”

Interviewees suggested that first steps towards collaboration with BC Parks should include scoping discussions, within which legal issues regarding First Nations Title claims are set temporarily aside. If this can be done, an area for future collaboration could be within the BC Parks annual management planning process. If First Nations identify priority items within protected areas, BC Parks could include mutual priorities in the annual work plan to develop collaborative management actions. These interviewees also noted potential for collaboration within some areas of the Broughton Archipelago within which they are conducting a Long-Term Ecological Monitoring Program (related to shellfish), as well as doing eelgrass planting and monitoring.

The West Coast Region staff of the FLNRO compliance and enforcement team is interested in collaborating with Guardian Watchmen. Interviewees emphasized that they are open to and enthusiastic about building relationships through meetings and marine-based joint patrols.



5 Barriers and opportunities to Guardian Watchmen program and Provincial collaboration

Based on documents and interviews, we catalogued the full range of monitoring and enforcement activities undertaken by the provincial government (Table 4), as well as barriers and opportunities related to collaboration between Guardian Watchmen and provincial agencies in support of these activities (Table 5).

Table 4. Provincial monitoring, compliance, and enforcement activities (based on MoE 2007 and consistent with FLNRO 2012 and FLNRO 2014).

Activity	Description
Effectiveness monitoring	Measurement of environmental condition to determine whether regulatory standards are having an effect on the environment.
Ambient monitoring	Measuring the changing status of a component of the environment over time.
Visible presence	Presence in an area of a figure in uniform (e.g., on regular patrols) deters non-compliant actions.
Outreach and community education activities	Presentations and meeting with stakeholder groups discussing regulations and requirements, etc..
Permit Reviews and follow-up meetings	Officer will review terms of a permit with client, and following inspections will discuss with client what could be done better/differently to achieve compliance.
Inspections and audits	Inspections of developments and activities such as bridge construction and inspections related to regulations (e.g., inspections of compliance with water licenses); inspections of regulated parties; and reviews of monitoring data provided by regulated parties.
Tenure / permit verification	Verification that license holders are in compliance with conditions of tenures and reporting requirements; can include investigations.
Human activities	Within Parks and conservation areas, inspections of front-country campgrounds and reviews of permit holders' operations for compliance with conditions of permits.
Provision of evidence	Monitoring data from ORR patrols (environmental as well as human activity) provided to COS to use when placing formal charges.
Advisories, warnings, tickets within	Given to individuals and commercial park permit holders for



parks / conservation lands	infractions such as: trespass, illegal alcohol, dogs, ATVs.
Investigations	Searches, surveillance, interviews.
Advisories, warnings and tickets, cancelling permits, administrative sanctions, and formal charges	Commercial and individual license holders.

Table 5. Barriers and opportunities for collaboration between Guardian Watchmen and provincial agencies as identified based on documents and interviews. Note “Code” is in reference to the identification of barriers and opportunities in Table 5.

Barrier	Code	Description
Training	TRN	Training of Guardian Watchmen is (or is perceived to be) insufficient or below provincial standards. However, in many cases, expressed concerns (e.g., regarding evidence gathering skills) are being addressed by training that will be ongoing from 2015-2018.
Provincial Resources	PRS	The Province has capacity limitations and therefore prioritizes where and what monitoring activities to pursue. They may not have the resources (human or financial) to support Guardian Watchmen programs to monitor less-than-priority issues.
First Nations Resources	FNR	Low human and financial capacity within First Nations limits the ability of programs to be self-sustaining and build capacity.
High Liability	HLI	If the Province delegates authority, and they do not have a formal agreement that waives liability, they are responsible for both the personal safety of Guardian Watchmen as well as their actions. There are certain types of activities in which the consequences of not carrying out an activity well are higher than other activities.

Opportunity	Code	Description
Trust and Relationships	TAR	Relationships between the Province and First Nations already exist and/or high opportunities are seen to build trust in these areas.
Provincial Resources	PRS	Low provincial capacity can be an opportunity as well as a barrier because it can create a willingness to collaborate with First Nations on low-risk activities such as ORR.
Provincial seeking to collaborate (document)	PCD	The Province has stated in written documentation (e.g., program or policy) that they are seeking to collaborate and/or delegate responsibility for monitoring to First Nations or other stakeholder groups.



Opportunity	Code	Description
Province seeking to collaborate (interview)	PCI	Individuals from the Province have identified this as an area for potential collaboration with Guardian Watchmen in an interview.
First Nation Priority	FNP	Area or activity that has been identified by First Nations (in documents or interviews) as a priority area.
Low Liability	LLI	Area of low risk in relation to personal safety and legal liability in which Guardian Watchmen could collaborate (e.g., environmental monitoring).

Based on documentation and interview responses, we catalogued the extent to which each provincial activity is stated to occur as well as the actual degree and/or frequency with which each activity occurs to inform our assessment of where opportunities for collaboration exist (Table 6). We then developed ratings to capture the relative potential for Guardian Watchmen to support provincial monitoring, compliance, and enforcement activities based on associated barriers and opportunities (high = 5, low = 1) (Table 6). We subsequently used these ratings to identify priority opportunities for Guardian Watchmen to support provincial monitoring, compliance, and enforcement activities in the NVI region.

Several additional overarching barriers are not applicable to specific monitoring activities but are still relevant for assessing collaboration between Guardian Watchmen and provincial agencies, and are further discussed in the Recommendations (Section 6). These include:

- Jurisdiction: the province has limited jurisdiction in the marine environment, and the federal government is not a partner in MaPP.
- The level of connection or disconnection between a Guardian Watchmen program and their Nation’s Chief and Council: connection of program to management can highlight program value and disconnection can create funding insecurity.
- Shared territories amongst First Nations: creates complexity and a sensitive situation for the provincial government when seeking to collaborate with a particular First Nation.



Table 6. Provincial monitoring and enforcement activities with barriers and opportunities for Guardian Watchmen involvement and relative rating for involvement as compared to other activities in the table. See Table 4 for description of “Barriers” and “Opportunities” codes.

Activity	Responsible Actor(s)	Degree to which activity is stated to occur	Degree to which activity occurs	Barriers	Opportunities	Potential for Guardian Involvement	Rational for relative rating	
Environmental Monitoring	Effectiveness monitoring	MoE: biologists and other professionals	No documents provide information regarding frequency and regularity of effectiveness monitoring.	Some MoE documents directly state growing role for community stakeholders/volunteers in data collection (BC Parks 2015). Environmental Sustainability and Strategic Policy Division responsible for: species at risk, invasive species (supporting EPD) and ecosystem monitoring. The EPD will conduct emergency response monitoring in the event of an incident.	TRN PRS FNR	LLI PCD PCI FNP	4	Effectiveness monitoring receives a lower score than ambient monitoring because it is related to a regulatory standard or policy. Therefore, data collection would likely require more specific (policy/regulation) information and support from provincial actors. Training in data collection and provincial resources is not a significant barrier for this action because of low liability and Guardian Watchmen training is currently ongoing.
	Ambient Monitoring	MoE: biologists and other professionals	No documents provide information regarding frequency and regularity of effectiveness monitoring.	MoE and BC Parks documents state that because the ministry has adopted a results-based approach to environmental management, "shared stewardship" with community stewardship groups is a growing priority. Documents also state that data from ambient and effectiveness monitoring is very important in setting compliance monitoring priorities (MoE 2007, BC Parks 2007). Environmental Sustainability and Strategic Policy Division are responsible for: snow survey, Canada-BC hydrometric network, water & air quality monitoring.	TRN PRS FNR	LLI PCD PCI FNP	5	Training and provincial resources are not significant barriers for this action because of low liability and Guardian Watchmen training is currently ongoing.



Activity	Responsible Actor(s)	Degree to which activity is stated to occur	Degree to which activity occurs	Barriers	Opportunities	Potential for Guardian Involvement	Rational for relative rating	
	FLNRO: biologists and other professionals	No documents provide information regarding frequency and regularity.	No documentation or interview regarding frequency.					
Compliance Promotion	Visible presence	MoE: BC Parks, COS (MoE 2007)	Regular patrols in front country campgrounds and backcountry (no documentation indicating regularity).	In the South Central Coast Area, on-site visits occur approx. 2-4 times per month during the summer months and less in the winter. 5-10 inspections completed last year.	TRN FNR	LLI PRS PCI FNP TAR	5	Interaction with resource users not required (potential for minimal conversation only). All documents and interviews highlight value of Guardian Watchmen performing this role. Training is ongoing.
		FLNRO: NROs (FLNRO 2012, 2014)	No document has provided information beyond stating that patrols occur (FLNRO 2012, 2014). No indication that there are regular patrols of archaeological sites.	Inspections or patrols occur multiple times/week. 50-foot vessel on patrol at least one week/month from March-November. Marine patrol in smaller vessel once/two weeks. Despite the fact that inspections or patrols are occurring often, there are limited staff and many sites. Thus, sites can be visited infrequently.				
	Outreach & community education activities	MoE: all (MoE 2007)	As needed/opportunity presents (no documentation regarding regularity).	Education, voluntary compliance, and a public relations approach to compliance are the foundation of BC Parks C&E.	TRN HLI FNR	PRS	3	Rating of 3 given because there is moderately high liability in a situation wherein Guardian Watchmen would present to stakeholders as an authority. Potential area for role in the future as relationships and programs develop.
		FLNRO: NROs (FLNRO 2012, 2014)	As needed/opportunity presents (no documentation regarding regularity) (FLNRO 2014).	Whenever they are active in the field (FLNRO 2012).				
Permit reviews & follow-up meetings after inspections	MoE: EPD (MoE 2007)	No document has provided information beyond stating that reviews occur; assume occur according to inspection schedules and as new permits are issued.	No interview or document has provided information beyond stating that these activities and interactions occur.	TRN HLI FNR	PRS	2	High level of training and detail-specific knowledge required.	



Activity	Responsible Actor(s)	Degree to which activity is stated to occur	Degree to which activity occurs	Barriers	Opportunities	Potential for Guardian Involvement	Rational for relative rating	
	FLNRO: NROs (FLNRO 2012, 2014)	No document has provided information beyond stating that reviews occur; assume occur according to inspection schedules and as new permits are issued (FLNRO 2012, 2014).	Inspections or patrols occur multiple times/week. Flights (float plane or helicopter) at least once/week in central and southern West Coast region. 50-foot vessel on patrol at least one week/month from March-November. Marine patrol in smaller vessel once/two weeks. Despite the fact that inspections or patrols are occurring often, there are limited staff and many sites. Thus, sites can be visited infrequently.					
Compliance Verification	Inspections and audits	MoE: Various professionals, EPD, COS (MoE 2007)	Assume as needed/opportunity presents (no documentation regarding regularity).	No interview or document has provided information beyond stating that these activities and interactions occur.	TRN HLI PRS	PCI (ORR) FNP	2 / 3	Rating of 3 given if no engagement (ORR role only), which means that liability would be relatively low.
		FLNRO: NROs (FLNRO 2012, 2014)	Assume as needed/opportunity presents (FLNRO 2012, 2014).	Inspections or patrols occur multiple times/week. Flights (float plane or helicopter) at least once/week in central and southern West Coast region. 50-foot vessel on patrol at least one week/month from March-November. Marine patrol in smaller vessel occurs once/two weeks. Despite the fact that inspections or patrols are occurring often, there are limited staff and many sites. Thus, sites can be visited infrequently.				Rating of 2 if any form of engagement with resource user because of potential for situation to move into compliance enforcement activity (if resource user is non-compliant). Training and provincial resources are more significant barriers in this case due to specificity of knowledge and likely greater levels of support needed.



Activity	Responsible Actor(s)	Degree to which activity is stated to occur	Degree to which activity occurs	Barriers	Opportunities	Potential for Guardian Involvement	Rational for relative rating
Compliance Verification	Tenure / permit verification	MoE: EPD, BC Parks, COS (MoE 2007)	Frequency and nature of verification activities decided based on risk (likelihood, history, and impact), resources, and community interests.	Mainly self-reporting & RAPP line, some regular inspections. In Parks, formal field inspections, self-reporting, or on an ad-hoc basis. In the South Central Coast Area, on-site visits occur approx. 2-4 times per month during the summer months and less in the winter. 5-10 inspections completed last year. Permit holders are required to submit annual user reports.	TRN HLI PRS	PCI (ORR) TAR FNP	2 / 3 Rating of 3 given if no engagement (ORR role only), which means that liability would be relatively low. Rating of 2 if any form of engagement with resource user because of potential for situation to move into compliance enforcement activity (if resource user is non-compliant). Training and provincial resources are more significant barriers in this case due to specificity of knowledge and likely greater levels of support needed.
		FLNRO: NROs (FLNRO 2012, 2014)	Assume as needed or as opportunity presents (FLNRO 2012, 2014).	Self-reporting, RAPP line, and some regular inspections depending on how many complaints. Inspections / patrols occur multiple times/week. Flights (float plane or helicopter) at least once/week in central and southern West Coast region. 50-foot vessel on patrol at least one week/month from March-November. Marine patrol in smaller vessel once/two weeks. Despite the fact that inspections or patrols are occurring often, there are limited staff and many sites. Thus, sites can be visited infrequently.			
	Human activities	MoE: BC Parks, COS (MoE 2007)	Regular inspections in front country parks and there are backcountry patrols. Frequency and nature of verification activities decided based on risk (likelihood, history, and impact), resources, and community interests.	In the South Central Coast Area, on-site visits occur approx. 2-4 times per month during the summer months and less in the winter. Protected areas within this Area are only accessible by boat or aircraft.	TRN HLI PRS	PCI (ORR) TAR FNP	2 / 4 Low liability and score of 4 if ORR / compliance promotion through presence only. If engagement with park or conservation lands user, score of 2 because of liability.
	FLNRO: NROs (FLNRO 2012, 2014)	Assume as needed/opportunity presents (FLNRO 2012, 2014). No indication that there are regular patrols of archaeological sites.	Monitoring of public uses restricted to some foreshore/estuary areas. Monitoring occurs as part of regular land management activities. If there are complaints, forwarded onto COS. Unknown number of inspections last year.				



Activity	Responsible Actor(s)	Degree to which activity is stated to occur	Degree to which activity occurs	Barriers	Opportunities	Potential for Guardian Involvement	Rational for relative rating	
Enforcement	Provision of evidence	MoE: EPD, Water Stewardship Division; COS (MoE 2007)	As situations require	No documentation or interview provides information beyond that this occurs as situations require.	TRN	LLI FNP PRS PCI	5	Training is currently ongoing.
		FLNRO: biologists, technicians	As situations require	No documentation or interview provides information beyond that this occurs as situations require.				
	Advisories, warnings, tickets (within Parks)	MoE: BC Parks (MoE 2007)	Assume as required based on patrols, inspections, and RaPP line calls.	In response to complaints or if issue with a park user or permit holder is found during field patrols; appropriate action guided by MoE Compliance matrix.	TRAIN HLI		1	Extremely high level of training (police officer level) and liability.
		FLNRO: NROs (FLNRO 2012, 2014)	As required based on patrols, inspections, and RaPP line calls.	As required according to severity and duration/recurrence of offence - there is a decision matrix.				
	Advisories, warnings, tickets	MoE: COS (MoE 2007)	As required based on patrols, inspections, and RaPP line calls.	Appropriate action guided by MoE Compliance matrix.	TRN HLI		1	Extremely high level of training (police officer level) and liability.
		FLNRO: NROs (FLNRO 2012, 2014)	As required based on patrols, inspections, and RaPP line calls.	As required according to severity and duration/recurrence of offence - there is a decision matrix.				
	Investigations	MoE: EPD, COS, BC Parks (MoE 2007)	As required based on severity of action.	As needed according to MoE matrix guiding enforcement actions.	TRN HLI		1	Extremely high level of training (police officer level) and liability.
		FLNRO: NRO (FLNRO 2012, 2014)	As required based on severity of action.	As required according to severity and duration/recurrence of offence - there is a decision matrix.				



	Activity	Responsible Actor(s)	Degree to which activity is stated to occur	Degree to which activity occurs	Barriers	Opportunities	Potential for Guardian Involvement	Rational for relative rating
Enforcement	Cancelling permits	MoE: Fish and Wildlife Branch, COS (MoE 2007)	As required based on severity of action.	No documentation or interview provides information beyond that this occurs as situations require, although MoE will have an internal record of sanctions.	TRN HLI		1	Extremely high level of training (police officer level) and liability.
		FLNRO: NRO (FLNRO 2012, 2014)	As required based on severity of action.	As required according to severity and duration/recurrence of offence - there is a decision matrix.				
	Administrative sanctions	MoE: COS, BC Parks (MoE 2007)	As required based on severity of action.	MoE has an internal record, as do the courts; BC Parks may take this action as guided by MoE Compliance matrix.	TRN HLI		1	Extremely high level of training (police officer level) and liability.
		FLNRO: NRO (FLNRO 2012, 2014)	As required based on severity of action.	As required according to severity and duration/recurrence of offence - there is a decision matrix.				
	Formal charges	MoE: COS, BC Parks (MoE 2007)	As required based on severity of action.	MoE has an internal record, as do the courts; BC Parks may take this action as guided by MoE Compliance matrix.	TRN HLI		1	Extremely high level of training (police officer level) and liability.



Activities with the highest potential (i.e., rating = 4 or 5) for collaboration between Guardian Watchmen and Provincial agencies include: environmental monitoring (ambient and effectiveness); compliance promotion through being a visible presence in the area; compliance promotion in an observe, record, and report role (particularly in parks and protected areas); and provision of environmental data as evidence for enforcement.

We rated ambient and effectiveness monitoring 5 and 4, respectively. Barriers related to training are greater for effectiveness monitoring than ambient monitoring because it is related to specific Provincial programs and initiatives. However, this barrier may be reduced through environmental monitoring training currently underway. Compliance promotion (rated 5) through visible presence in an area is an important role for Guardian Watchmen that has been emphasized by all Provincial interview participants, and which requires relatively little training or extra effort by both Provincial and First Nations. Compliance verification of human activities also received a high rating (4), particularly within parks and FLNRO conservation lands, due to the high level of expressed interest in collaboration by individuals within these agencies. However, note that a rating of 3 exists for collaboration with MoE and FLNRO in compliance verification related to industrial tenures because of the greater complexity of legislative and regulatory knowledge required. In all compliance verification, Provincial interviewees repeatedly stressed the risks of engaging with resource users (i.e., a non-compliant situation can quickly turn into an enforcement situation), but these risks are mitigated if activities are restricted to ORR. Within enforcement activities, the only activity with a high rating (5) is the provision of environmental data as evidence. Although relationships and data collection protocols would need to be developed with enforcement agencies, this activity received a high rating because the only barrier to collaboration is training, which is currently ongoing, and provincial interview participants have indicated interest in developing data collection protocols.

The activities with the relatively medium levels of collaboration potential (i.e., rating = 2 or 3) include: compliance verification conducting inspections and audits; compliance verification of tenures / permits; compliance promotion conducting permit reviews & follow-up meetings after inspections; and compliance verification of human use activities in which there is engagement with a park or conservations lands user. As mentioned above, compliance verification related to conducting inspections and audits or verifying tenures or permits (rated 3) have more training requirements than human use compliance verification (rated 4). All compliance verification activities with an element of resource user or permit holder engagement were rated 2 due to the engagement risks described in the previous paragraph. Lastly, interviewees expressed that all enforcement activities except for provision of evidence had the most barriers for Guardian and Provincial collaboration due to extremely high levels of training requirements and liability.



6 Recommendations

The Ha-ma-yas Stewardship Network is only one year old and yet has made significant progress developing both the Network and individual Guardian programs during this time. Although there are areas where the Network could improve, it is clear that it is valuable. Given this value, and the potential of the Network, our first and overarching recommendation is that the Network and Guardian programs continue to exist and grow into the future in a way that supports collaboration with the Provincial government on activities related to monitoring, compliance and enforcement.

The coordination that exists amongst the Ha-ma-yas Stewardship Network Nations has been central to the support of Guardian training and data management. Training within the Ha-ma-yas Stewardship Network and in partnership with CSN and VIU has and will continue to help retain Guardian Watchmen, develop Guardian's career paths, and build human capacity with the Guardian Watchmen programs. By partnering with the CFN, the Ha-ma-yas Stewardship Network has been able to use CoastTrackers to collect data which flows directly into the Nanwakolas office. Because the Nanwakolas office has data analysis capacity, data collected by Guardian Watchmen can be analyzed and reported on in a timely manner. The fact that analyzed data has been provided to Nations within the first year of the Network is a very positive sign and provides a strong foundation for continuing to grow the program in a way that connects data to users for decision-making and planning purposes.

To promote, establish, and grow inspection, monitoring, and enforcement collaborations between the Province and the NVI Guardian Watchmen, we have developed a set of recommendations based on document review insights, interview responses, and findings from our barriers and opportunities analysis (Section 6.1). These recommendations acknowledge the limited provincial capacity to carry out monitoring, compliance and enforcement activities, and they are designed to build upon the strengths of Guardian Watchmen programs (e.g., presence within, and knowledge of, territory). Because the continued existence and stability of Guardian Watchmen programs is critical for building monitoring and compliance collaborations with the Provincial government we have also developed several recommendations related to supporting the persistence of the Guardian Watchmen programs (Section 6.2).

6.1 Recommendations for Guardian Watchmen program and provincial collaboration

The following recommendations are focused on promoting a relationship between the Guardian Watchmen programs of Nanwakolas member Nations and the Province of BC that will help to identify and support opportunities for collaborative monitoring, compliance and enforcement in the MaPP NVI Marine Plan area moving forward.



6.1.1 Increase First Nation and provincial connections at multiple organizational levels

In both First Nations organizations and provincial agencies, there are multiple organizational levels at which monitoring, compliance and enforcement initiatives are managed and activities are undertaken. As a result, there are multiple ways in which collaborations can occur. We recommend that First Nations organizations and provincial agencies actively seek out opportunities for partnerships at multiple organizational levels including: at the level of individuals working in the field, collaboration at the managerial level, and discussions at the government-to-government level. Such interaction and collaboration at multiple levels will help to ensure that efforts at one level are not undermined by a lack of engagement and support at another level.

At an operational level, the potential benefits of “on the ground” relationship building was highlighted by multiple interviewees. We recommend that Guardian Watchmen and the provincial government make it a priority to schedule opportunities for Guardian Watchmen and NROs, COs and Park Rangers to spend time together in the field on joint patrols and activities (see Section 6.1.2 for specific locations and activities). Such opportunities will build trust and foster a greater appreciation of activities that each group undertakes in the field. Developing this mutual understanding will further support efforts at a managerial level to define precise geographical and activity-based areas for collaboration.

At the managerial level, we recommend that individuals in the Nanwakolas office, FLNRO (Integrated Resource Operations Division and Archeology Branch) and MoE (Environmental Protection Division and Compliance and Enforcement Division) draft an agreement that recognizes areas in which Guardian Watchmen programs can support priority provincial monitoring and compliance (see Section 6.1.2 for areas), identifies activities in which Guardian Watchmen can be more efficient at collecting information than provincial actors (acknowledging provincial government capacity limitations), and identifies how Guardian programs could be compensated for undertaking activities that support provincial mandates. As part of this agreement, we recommend that relevant monitoring and compliance protocols be drafted.

Provincial interviewees repeatedly emphasized that collaboration in enforcement activities goes beyond an operational or managerial level of authority because it requires the delegation of legal powers. The example from Gwaii Haanas (described in Section 3.4) highlights the benefits that can be gained when a co-management relationship is developed. Current government-to-government discussions are taking place between the Nanwakolas member Nations and the Provincial government. In acknowledging the importance of these discussions for Guardian program and provincial collaboration, we recommend they continue to occur in ways that allow Nanwakolas Nations greater opportunity for involvement in management at all levels, and increases the range of provincial and Guardian program collaboration opportunities.



6.1.2 Pilot collaborations in areas with few barriers and many opportunities

We recommend that initial collaboration between Guardian Watchmen programs and provincial agencies focus on areas with: existing agreements and relationships; opportunities for compliance promotion and an observe, record and report role; environmental monitoring; and the provision of environmental data as evidence for enforcement. We detail each of these areas in the following sections. It should be noted, however, that we are not deterring Guardian Watchmen programs and provincial agencies from collaborating on activities and in locations not discussed below. Instead we highlight these areas because we have found they offer the greatest potential for collaboration in the immediate term.

Build upon existing agreements and relationships

In the MaPP NVI Marine Plan, there are many monitoring or enforcement objectives and strategies within the conservation and protection topic of importance. Given that MoE has developed collaborative management agreements with some Nanwakolas Member First Nations, and the Nawakolas Council has developed relationships with FLRNO, there is an opportunity to build upon these existing agreements and relationships. It was clear from documents and interviews that human capacity at the Province is limited (e.g., BC Parks has only six Rangers in the West Coast Region), and the 2015 MoE service plan states that the Ministry should “increase collaboration with First Nations in protected areas management and planning”. Thus, we recommend that representatives from the Ha-ma-yas Stewardship Network initiate discussions with regional-level staff at BC Parks (MoE) and FLNRO, within which legal issues regarding First Nations Title claims are set temporarily aside (related to connecting at managerial level in recommendation 6.1.1). More specifically, we recommend initial discussions be pursued with BC Parks in two areas (Figure 4):

1. Collaboration opportunities between the Gwa’sala-Nakwaxda’xw Guardian program and BC Parks related to the Conservancies that have signed management plans (i.e., Mahpahkum-Ahkwuna/Deserters-Walker, NEĜIĀ/Nekite Estuary, Tsa-Latí/Smokehouse, Ug^wiwa’/Cape Caution, Ug^wiwa’/Cape Caution - Blunden Bay, Wawley/Seymour Estuary).
2. Collaboration opportunities between the Mamalilikulla-Qwe’Qwa’Sot’Em Guardian program and BC Parks related to the Broughton Archipelago Marine Park, Broughton Archipelago Conservancy, and the Qwiquallaaq/Boat Bay Conservancy, the last of which has a signed management plan.



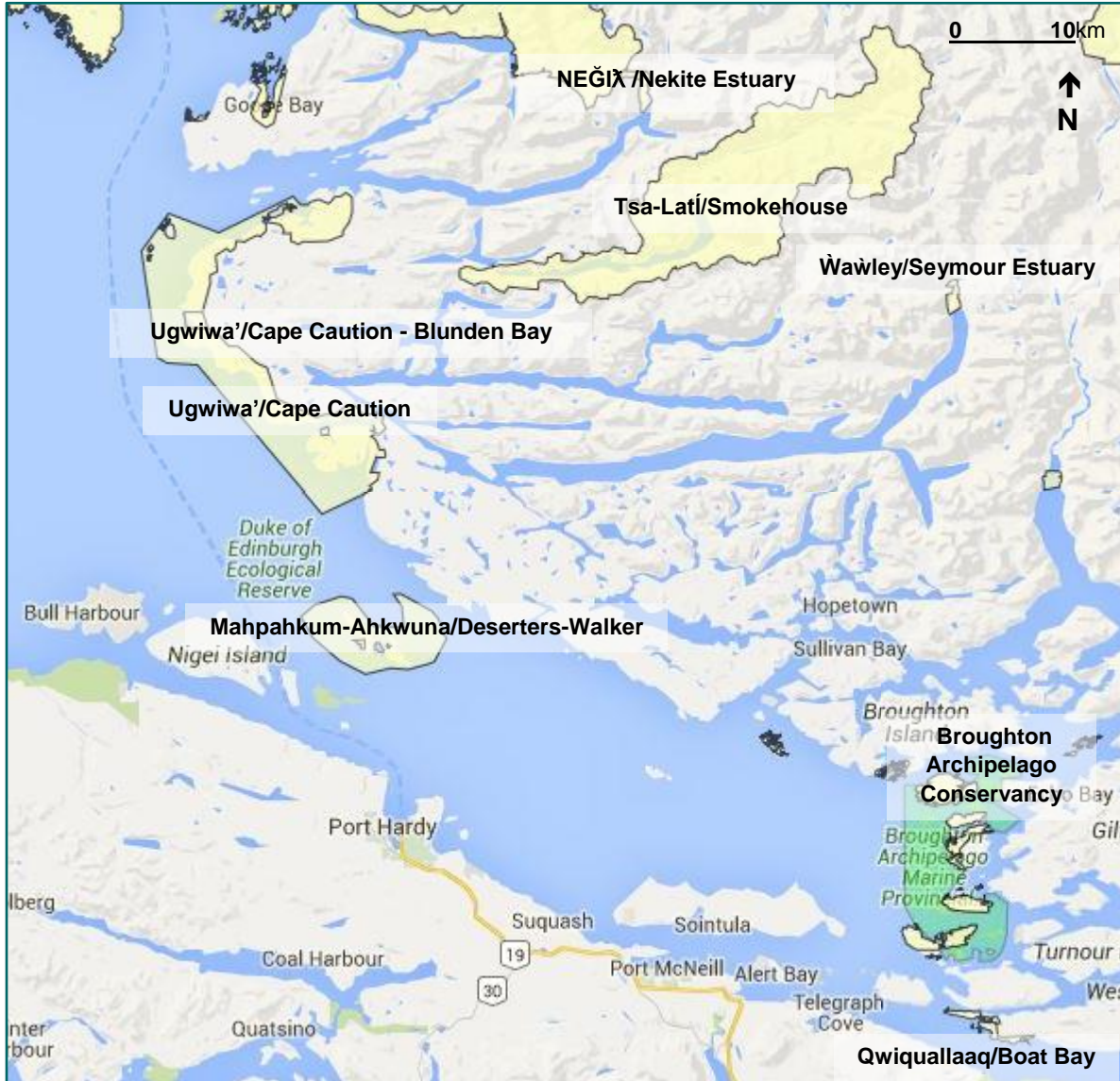


Figure 4. BC Parks Conservancies with management plans signed by either the Gwa'sala-Nakwaxda'xw Nation or the Mamalilikulla-Qwe'Qwa'Sot'Em Nation (yellow areas with black titles) and the Broughton Archipelago Marine Park (green area) (BC Parks 2016).

These are promising areas to pursue pilot collaboration because these Nations are the two Nanwakolas member Nations with Guardian programs that have Collaborative Management Agreements with MoE and signed collaborative management plans for at least one conservancy in their territory. Building upon the development of the collaborative management plans, collaborative management actions can be developed and incorporated into annual work plans. Furthermore, these are the two Nations in which BC Parks have previously undertaken activities with Guardians in the field. Existing since 2010, the Gwa'sala-Nakwaxda'xw Guardian program has been established for multiple years, which puts them in a good position to be building upon their existing program. Although the

Mamalilikulla-Qwe'Qwa'Sot'Em Guardian program is young, the Broughton Archipelago area has a unique ecosystem, various cultural heritage sites, and a multitude of recreational and commercial activities. Thus, it provides an opportunity for collaborating on a range of activities within one geographical area.

We further recommend that discussions be pursued regarding collaboration between these two Guardian programs and the Archaeological Branch in FLRNO related to monitoring and data collection for cultural heritage sites. This recommendation is further detailed in the following section. We recommend that the other activities outlined in the next three sections be pursued in the two aforementioned pilot areas as well.

Conduct compliance promotion & observe, record and report activities

Compliance promotion and verification in an ORR role were consistently identified by interviewees as an area of potential collaboration between Guardian Watchmen programs and provincial agencies. In discussions with interviewees about compliance monitoring, barriers to Guardian Watchmen involvement included liability concerns and the level of training that is required to conduct compliance monitoring. With the current level of Guardian training, we recommend Guardian Watchmen programs be involved in compliance promotion that is related to being a visible presence (with official uniforms) in their territory, especially through conducting patrols within protected areas and at cultural heritage sites. We also recommend that the Province and Guardian Watchmen pursue joint monitoring compliance promotion experiences (related to connecting at operational level in recommendation 6.1.1) and that Guardian Watchmen training through VIU emphasizes training necessary for Guardians to collaborate in compliance promotion through outreach and community education.

In addition to compliance promotion at cultural heritage sites, we recommend that the Hama-yas Stewardship Network collaborate with the FLRNO Archaeology Branch to discuss how Guardian Watchmen can conduct compliance verification within an ORR role at cultural heritage sites in a way that best supports provincial mandates. This discussion should include drafting protocols for how Guardian Watchmen programs can work with the HRIA database. Current VIU training includes an archaeology and culturally modified tree inventory course in which participants earn a Resources Information Standards Committee (RISC) certificate. This training will facilitate Guardian Watchmen gathering information in a way that is consistent with provincial methods.

We further recommend that Guardian Watchmen programs collaborate with provincial agencies to involve Guardians in compliance verification within an ORR role using a standardized approach for recording and reporting non-compliant instances. With the current level of Guardian training, we recommend Guardians conduct ORR for human activities because it involves low liability risk and the VIU program currently includes parks regulations training for Guardians. For example, Guardians can record tourism activities such as camping in non-designated areas, but engaging a park user to verify the terms of a camping permit would be beyond the scope of an ORR role. For ORR compliance



verification related to industrial tenure permits, we similarly recommend that Guardians conduct verification activities that do not involve engaging with tenure permit holders, and further recommend that Guardians be familiar with the tenure permit conditions prior to conducting ORR activities. We recommend the initial pursuit of compliance verification activities in this way because provincial interviewees highlighted that once it has been determined that a resource user is non-compliant, the compliance verification role quickly switches to one of enforcement, which to be done effectively and safely requires a higher level of training. Overcoming barriers for Guardian involvement in compliance activities that are beyond ORR is discussed in Section 6.1.3.

Conduct environmental monitoring

As stewards of natural heritage resources within their territories, we recommend that Guardian Watchmen collaborate with provincial agencies to carry out environmental monitoring. There are several NVI Marine Plan objectives and strategies related to improved understanding of marine environmental conditions and ecosystem structure, function, status and trends. There are also several MaPP indicators (Table 3), which interviewees further identified as being monitoring priorities for both First Nations and the Province. For example, water quality is important for shellfish harvesting, which is related to First Nations clam gardens and provincially regulated shellfish aquaculture operations. Eelgrass distribution and biomass is another indicator within the MaPP framework. Guardian Watchmen have received training in monitoring eelgrass, and interviewees from BC Parks indicated interest in eelgrass monitoring as well. We recommend that provincial and Guardian Watchmen program collaborations include both ambient monitoring (measuring ecosystem status and trends) as well as effectiveness monitoring (measuring environmental condition to determine whether regulatory standards are having an effect in the environment). Efforts within MaPP are currently underway to determine where provincial and First Nations environmental monitoring priorities overlap, and identify which indicators are priorities for environmental monitoring. Acknowledging the importance of monitoring implementation, we suggest that Ha-ma-yas Stewardship Network representatives and individuals from relevant provincial agencies (e.g., MoE Environmental Sustainability and Strategic Policy Division) initiate discussions to coordinate monitoring and data collection efforts related to the identified environmental indicators.

Collect and provide environmental data as evidence for enforcement

Although many enforcement activities are not good entry points for collaboration due to substantial training requirements and potential liability issues, we recommend that the Guardian Watchmen programs and provincial enforcement agencies collaborate on the provision of environmental data as evidence for enforcement. This activity was the only one in the enforcement category with few barriers due to the fact that it is currently covered in the VIU training program and liability concerns associated with it are low. In pursuing this collaboration, we recommend that Guardians and officers within relevant provincial agencies (i.e., FLNRO, COS, EPD) discuss this activity during joint patrols (related to recommendation 6.1.1) and then schedule meetings to further discuss the proper avenues



for the provision of data. This process of establishing protocols will foster relationships between Guardians and relevant provincial staff and further ensure that any evidence gathered is useful for enforcement purposes.

6.1.3 Address barriers to First Nation and provincial collaboration on compliance verification monitoring

Although a number of barriers to Guardian program and provincial collaboration on compliance verification were identified, it is an activity where collaboration could exist if there are efforts to overcome the barriers. These barriers include high levels of training to acquire knowledge related to specific types of regulations and permits as well as high levels of liability related to engaging a tenure holders or resource users (especially because of the switch into an enforcement role upon encountering non-compliance, as discussed in the compliance promotion & observe, record and report sub-section in Section 6.1.2).

We recommend that Guardian programs and provincial agencies work together to address and overcome barriers to collaboration on compliance verification activities related to conducting inspections and audits as well as tenure/permit verification. Overcoming training barriers will require designing a standardized training program that builds upon the current VIU program and is recognized by the Provincial government. Overcoming concerns related to high levels of legal liability will require reviewing the liability associated with the delegation of authority to enable Guardian Watchmen to conduct compliance verification activities and exploring how to address the liability using legal agreements. Collaborative efforts to overcome these barriers will need to occur at the managerial and possibly government-to-government level (related to recommendation 6.1.1). We recommend that individuals at these organizational levels within Nanwakolas Nations and the Province actively engage in discussions aimed at ensuring: (1) Guardian training is sufficient to address liability concerns, and (2) necessary protocols or agreements are developed to enable Guardian Watchmen to have the proper legal authority to conduct inspections, audits, and tenure/permit verifications.

6.1.4 Increase Provincial government commitment to working with Guardian Watchmen programs

The importance of collaborating with First Nations is clearly articulated in multiple provincial documents, including the NVI Marine Plan, which is signed by the Minister of FLNRO on behalf of the BC Provincial government (BC Parks 2008, MoE and AEO 2014a, FLNRO 2015a, Marine Planning Partnership Initiative 2015; see Section 3.3). The most recent FLNRO service plan discusses working cooperatively with First Nations to manage land and natural resources as well as to better understand and align provincial and First Nation interests (FLNRO 2015a). The most recent MoE service plan includes a variety of strategies that seek to increase collaboration with, or the role of, First Nations in stewardship and resource management (MoE and AEO 2014a). The Marine Plan Partnership provides an example of successful collaboration between First Nation and Provincial governments. Collaborative management agreements for conservancies within the MaPP NVI Marine Plan

area provide another example of First Nations and the Province working together. Building upon these successes, we recommend that the Provincial government (within FLNRO and MoE) formally commit to working with the Ha-ma-yas Stewardship Network and Guardian Watchmen programs in the ways that have been outlined in the previous recommendations, including committing to financially support Guardian Watchmen programs in monitoring that informs provincially mandated resource management. As demonstrated by the Australian “Working on Country” program (Section 3.4), financial commitment by government to an indigenous monitoring and compliance program can increase program capacity by providing stable funding and high-level support. Increasing capacity allows programs to develop staff and protocols that foster robust, long-term data collection, so that information gathered can inform resource management decision-making. As demonstrated by the Gwaii Haanas example (Section 3.4), commitments by First Nations and Canadian governments can produce strong co-management circumstances and foster long-lasting Guardian Watchmen programs.

6.2 Recommendations to support Guardian Watchmen program persistence and success

The following recommendations were developed in recognition of the fact that Guardian Watchmen program existence, stability, and success are critical for building long-term provincial collaborations.

6.2.1 Increase commitment from Nations to embrace Guardian Watchmen programs

The Ha-ma-yas Stewardship Network has accomplished a lot in its first year, including Guardian completion of multiple training courses, acquisition of boats and other necessary monitoring equipment, and the creation of collaborations with other stewardship organizations. Multiple interviewees discussed how Guardian Watchmen are valuable because they are stewards of their territory and they gather information relevant to their Nation’s interests. However, interviewees from several Nations also discussed a lack of connection between the Guardian program and the Nation’s Council. Other Nations, which did not express as much disconnect, still emphasized that data being collected by Guardians are not yet used for management or decision-making within their Nation. This comes as no surprise given that all of the Watchmen programs (except for one) are just a year old. However, because the programs are in their infancy, and assessing their capabilities, capacity and priorities, now is the time for the programs to better connect with their Councils and identify the ways in which they can be most valuable for the Nation.

We recommend that Nations invest effort into identifying activities that Guardians can pursue that will inform Nation affairs. By determining the type of information that is useful for the Nation and connecting it to specific activities that are undertaken by the Guardians, the Guardian programs will increase their value to the Nation. After over 5 years in operations, Guardian Watchmen programs that are part of the CSN have found that making a clearer



connection between the data collected and its uses is necessary to generate support from the community and Council (discussed in Section 3.4). The Ha-ma-yas Network can benefit from the lessons learned by the CSN by establishing this connection between data collection and decision-making and planning early on in the development of the Network.

6.2.2 Develop a Ha-ma-yas Stewardship Network long-term business plan

Because the NVI Guardian Watchmen programs are new, they are in a precarious state where each Nations' program is trying to find its footing and identify priorities moving forward. The most substantial challenge highlighted by interviewees was securing funding so that the programs can continue to exist, adapt and respond to emerging needs. To determine how the programs might evolve in a way that is viable into the future, we recommend that the Ha-ma-yas Stewardship Network develop a long-term business plan that considers multiple types of revenue sources. Such an effort could learn from a similar exercise being undertaken by the CSN and The Nature Conservancy of Canada while also considering unique aspects to the NVI region (e.g., greater tourism related activities in the NVI area compared to the central and north coasts of BC).

As part of developing a business plan, we recommend working with provincial agencies to identify ways in which Guardian Watchmen programs can be compensated for conducting monitoring activities in situations where it is more effective for Guardian Watchmen to conduct monitoring than the provincial agencies. The importance of collaborating with First Nations is clearly articulated in multiple provincial documents (BC Parks 2008, MoE and AEO 2014a, FLNRO 2015a, Marine Planning Partnership Initiative 2015), and so a strong business case supporting the stability of Guardian Watchmen programs will also benefit future collaboration with the Provincial government.

6.2.3 Assess collaboration opportunities with the Federal government

The impetus for our report, and more generally interest in collaboration between Guardian Watchmen and the Province, is driven by the collaborative exercise they have undertaken to develop a marine plan for the NVI area. However, there are a multitude of marine use activities, such as fishing and shipping, which are the jurisdiction of the Canadian federal government, and so are not part of the MaPP NVI Marine Plan. Multiple interviewees highlighted the jurisdictional challenges within the NVI Marine Plan area (i.e., multiple governments with overlapping territories and jurisdictions). For example, shellfish aquaculture is overseen by a combination of federal, provincial and local authorities and there are also First Nations with shellfish aquaculture operations.

An assessment of opportunities for Guardian Watchmen to support federal monitoring, compliance and enforcement activities was outside the scope of this report. However, identifying, and acting upon such opportunities is only likely to further build and strengthen the capacity of Guardian Watchmen to engage in priority monitoring, compliance, and enforcement activities within the NVI region. We therefore recommend an assessment focused on opportunities for Guardian Watchmen to support federal monitoring, compliance,



and enforcement activities be carried out. The recent change in federal administration, and the possible changing federal management landscape, further highlights the potential benefit of conducting such an assessment at this point in time.



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Appendix A: List of Key Informants

First Nations Contacts

Name	Affiliation	Role
Scott Harris	Nanwakolas	Community Planner
Art Wilson	Nanwakolas	Referrals Office Manager
Greg Johnson	Nanwakolas	Planning/GIS/Data
Chris Roberts	Nanwakolas	Economic Development
John Bones	Contracted by Nanwakolas	Marine Planner
Sherry Thomas	Tlowitsis	Band Manager/Guardian Manager
Cory Frank	K'omoks	Guardian
Chief Harold Sewid	Mamalilikulla Qwe'Qwa'Sot'Em	Chief
Wally Eamer	Anglican Minister	Former Provincial employee and contracts to Nanwakolas as an advisor
Tony Wong	Contractor	Administering BCCI Funds to FN Guardian Programs

Provincial Contacts

Name	Affiliation	Role
Paul Bastarache	FLNRO	Regional Manager - West Coast, Compliance and Enforcement Branch
Denise Blid	FLNRO	Senior Compliance and Enforcement Supervisor, West Coast Region
Tom Reid	FLNRO	Manager, Vancouver Island Conservation Land Management Program
Ron Diederichs	FLNRO	Ecosystems Section Head, FLNR West Coast Region
Matthew Justice	FLNRO	Resource Management Objectives - Assistant Negotiator
John Harkema	FLNRO	Senior Provincial Resource Officer



Name	Affiliation	Role
Kevin Edquist	FLNRO	Director of C&E with FLNRO
Kevin Bertram	FLNRO	Provincial C&E Leader
Rick Siempelkamp	FLNRO	Provincial Resource Officer
Bill Zinovich	FLNRO	Land and Resource Specialist within the Resource Stewardship Division (Resource Management Objectives Branch)
Marty Roberts	MoE	Advisor for compliance management
Winnifred Hays-Byl	MoE	Knowledge Management Branch, Environmental Sustainability and Strategic Policy Division
Stuart Walsh	MoE (BC Parks)	Safety, Compliance & Enforcement Officer, Regional Operations
Jim Spowart	MoE (BC Parks)	Area Supervisor - Black Creek



Appendix B: Questionnaires

First Nations

- What is your position, how long have you been in your position, how did you get into what you are doing? *(GW, M)*
- Were you involved with marine planning in the North Vancouver Island (NVI) area? If so, in what way? *(GW, M, C)*
- How are you involved with the Guardian Watchmen (GW) Network/programs? *(all, unless obvious)*

General

- What do you think is the purpose of the GW Network/programs? *(GW, M, C)*
 - Do you think the purpose should stay the same moving into the future? *(GW, M, C)*
- What do you like most about the program? *(GW, M, C)*
- What do you like least about the program? *(GW, M, C)*
- What is valuable about the program? *(GW, M, C)*
- What have been the program's biggest successes? *(GW, M, C)*
- What have been the program's biggest challenges? *(GW, M, C)*
- Where and how do you envision the program evolving? (i.e. size, activities, responsibilities) *(GW, M, C)*
- Where do you see the program being most valuable in the future? *(GW, M, C)*
- What is your version of the ideal program in the future? *(GW, M, C)*
 - What do you think is needed for that to exist? Have you thought of any

Program Capacity

- What activities are the GW engaged in, what did they do this past field season? *(GW, M, C)*
- How many GW are there? (either in you First Nation or across Nations) *(GW, M, C)*
 - Are they full-time? *(GW, M, C)*
 - What are their responsibilities? *(GW, M, C)*



- What kind of equipment is available? (GW, M)
 - Is that sufficient? If not, what kind of equipment is needed? (GW, M)
- What training and skill sets do [you and] current GW bring to their jobs? (GW, M)
- What skill sets do you look for when hiring GW? (M, C)
 - Do they bring similar skills, or are there large differences? (M, C)
 - Is it difficult to find people with the skill set needed to be a GW? (M, C)
 - How does this impact program capacity (technological / traditional knowledge)? (M, C)
- How does the GW program fit into your budget? (M, C)
- If the GW program is to grow, what kind of budget will it need? (M, C)
- How does your Nation fund the GW program? (GW, M, C)
 - What are the funding cycles? (M, C)
 - What other sources of revenue/funding do you see the GW program able to generate/access in the future? (GW, M, C)
- Are there any other aspects of capacity that we haven't covered, that are currently limitations for the program? (GW, M, C)
 - Strategies for making that happen? (GW, M, C)

Data Questions

- What information is currently being collected by you/the Guardian Watchmen? (GW, M, C)
 - Why are you/they collecting it? (GW, M)
 - How is it collected? (GW, M)
 - How often is it collected? (GW, M)
 - Do you think it is collected often enough? (GW, M)
- How do you store data that is collected? (both while collecting & in the office) (GW, M)
- How might the types of data that are being collected change into the future? (GW, M, C)
- What data that is currently not collected do you think should be collected? (GW, M, C)
- Are data being collected using the Coastal First Nations Regional Monitoring Strategy (RMS) devices and stored in the RMS database? (GW, M)



Management

- What are the key uses/activities/goals/priorities in your community that require monitoring and/or enforcement? (GW, M, C)
 - Are these being met? (GW, M, C)
 - If not, why? And how could the GW program grow to better support these initiatives? (GW, M, C)
- What types of data, if any, are currently used for management purposes? (GW, M, C)
- What types of data that are currently collected could be used to inform the implementation of the NVI marine plan or a Nation specific plan? (M, C)
- What types of data that are not currently collected could be collected by GW to inform implementation of the NVI marine plan or a Nation specific plan? (M, C)
- Has there been any data sharing and/or collaboration with provincial agencies and/or enforcement officers? (GW, M, C)
 - If so, how so? What Provincial inspection, monitoring and enforcement needs are being met by this collaboration? (GW, M, C)
 - If not, do you envision doing so in the future? (GW, M, C)
 - What barriers are there, if any, to participating in Provincial inspection, monitoring and enforcement activities? (GW, M, C)
- Are there any final barriers to or major opportunities for program development that we haven't covered yet? (GW, M, C)
- **Is there anything that you think is really important that we haven't covered yet, and that you'd like to speak about?** (GW, M, C)

Provincial

- What is your position / can you briefly describe the responsibilities of your position, and how long have you been in your position?

Marine Planning Partnership for the North Pacific (MaPP)

- Have you been involved with the marine planning process in the NVI area?
- How familiar are you with the monitoring and enforcement strategies in the North Vancouver Island Marine Plan developed under the MaPP initiative?
- Do you see MaPP plan implementation changing provincial monitoring priorities and data collection responsibilities?
 - If so, how?



- Where do you see challenges and opportunities to implement MaPP plan monitoring priorities?

Monitoring and Data Collection

Routine Monitoring

- What are you monitoring/what specific activities and marine uses does your department monitor?
- Can you please describe the scale and scope of oversight? (e.g., How often are the activities monitored for compliance? How many regulations, BMPs, or management plans is your Ministry monitoring compliance with?)
- How is compliance monitored? Does your department rely on on-site visits, self reporting records and procedures, or both?
- How often are on-site visits occurring? Are these quick visual inspections, or rigorous evaluations?
- How are data collected? Who collects the data?
- Do you know approximately how many inspections were completed last year?
- How many staff members are devoted to C&E activities? Has this changed significantly in the last 10 years?

Complaint-based Monitoring

- How often does your Ministry receive complaints about non-compliance?
- What steps are taken to investigate complaints?
- How are complaints/infractions responded to? (who investigates, who decides enforcement stringency)
- How are issues resolved? How are clients brought back into compliance?
- Can you tell me about the role of education in your department's C&E activities?

Enforcement

- Can you please describe the provincial enforcement tools available? Which tools would you say are relied on the most? How is enforcement stringency determined?
- How are enforcement actions coordinated with:
 - Local governments
 - First Nations



- Federal government
- Are there formal protocols in place for coordinating enforcement activities?
- In your opinion, are the protocols working well? What changes do you think are needed to improve coordination?

Specific Areas to make sure are covered (tailored according to interviewee) - ask for recommendation of another staff member to cover these areas if interviewees are not able to comment on these areas.

- How are these activities in particular being monitored?
 - Pollution from industrial tenures
 - Aquaculture
 - Heritage sites
 - Tourism activity within Conservancy Areas
- How frequently?

Adaptive Management

- How is the data you/your department collects being analyzed and used?
- Is information used to explore new management options? Can you give me an example of where adaptive management has led to changes in a component of the Regulation or a policy or procedure?

Collaboration with Guardian Watchmen

- To what extent are you aware of the Nanwakolas Guardian Watchmen (GW) programs?
- How do you see the Guardian Watchmen being able to contribute to Provincial monitoring, inspection and enforcement needs?
 - Geographical areas / uses or activities / business areas?
- Are you aware of any examples wherein the province and Guardian Watchmen have shared monitoring responsibilities?
- Do you envision this occurring in the future? If so, how?
 - What, if any, are the barriers for Guardian Watchmen to participation in inspection, monitoring and enforcement activities? How could these barriers be overcome?
 - Have you worked on the water with First Nations monitors or guardians?



- If so, could you describe any details of these experiences that stand out to you (ie, positives, negatives, challenges)?
- If not, what do you envision are the positives and challenges with doing so?

Provincial Policy and Programs - dependent on interviewee department

- The 2014/15-2016/17 MoE service plan includes the strategy “increase collaboration with First Nations in protected areas management and planning”, and “optimize economic opportunities for First Nations (amongst others) within BC parks”.
 - Could you describe any examples of new C&E actions that have been taken based on this policy direction?
 - What kind of actions or collaborations do you think could be implemented, based on this policy direction?
- The 2015/16-2017/18 FLNRO service plan includes, as a strategy to coordinate the sustainable management of BC’s resources, working collaboratively with First Nations in resource management.
 - Could you describe any examples of new C&E actions that have been taken based on this policy direction?
 - What kind of actions or collaborations do you think could be implemented, based on this policy direction?
- The MoE BC Parks *Program Plan* (2007) has as an objective ensuring that First Nations heritage is respected, preserved and enhanced. The Plan includes the strategy: “seek a range of opportunities to identify and recognize the contemporary management role of First Nations in parks and protected areas to generate social, cultural and economic benefits for First Nation communities,” and one of the performance measures listed in the appendix is: “number of initiatives that substantively engage First Nations in the management of natural or cultural values in parks and protected areas.”
 - Could you describe any examples of actions that have been taken based on this policy direction?
 - What kind of actions or collaborations do you think could be implemented, based on this policy direction?
 - Where can the data for this performance measure be found?
- Similarly, the BC Parks *Conservation Policy* (2014) acknowledges cultural heritage management as a shared responsibility, and the importance of collaborating with First Nations (and other organizations and agencies) in the stewardship of cultural heritage.



- What kind of actions or collaborations do you think could be implemented, based on this policy direction?
- **Is there anything that you think is really important to this issue that we haven't covered yet, and that you'd like to speak about?**



Appendix C: MaPP NVI Marine Plan objectives and strategies with monitoring or enforcement.

Community and Economy	
4.3.1 - Issue 5. Long-term viability of marine industries and local communities due to climate change impacts	
O.5.1 Anticipate and respond to potential climate-induced changes in the viability of marine industries.	S.5.1.1 Work with communities, industry, stakeholders and relevant government agencies to identify and assess the vulnerability of existing marine uses and activities to climate change, and the risks of climate change on the viability of those activities. <i>Start within 12 months, new funding or resources required, governance structure required</i>
Pollution	
4.3.3 - Issue 1. Impacts of uses and activities, point and nonpoint source pollution on marine habitat, species, human health and availability/harvest of marine food sources	
O.1.1 Minimise the impacts of uses and activities, point and nonpoint pollution on marine ecosystems.	S.1.1.7 Work with local, relevant government agencies and industry to mitigate and, where necessary, restrict activities that may have adverse impacts on sensitive marine habitats, including estuaries. <i>Ongoing activity, new funding or resources required, governance structure required</i>
4.3.3 - Issue 4. Restoration of deteriorated coastal areas	
O.4.1 Improve and enhance the restoration of deteriorated coastal areas.	S.4.1.1 Investigate the identified high risk pollution areas in Queen Charlotte and Johnstone Straits for priority restoration sites, including estuaries and Plan Protection Management Zone areas. <i>Start within 12 months, new funding or resources required</i>
4.3.3 - Issue 5. Methods of mitigating potential adverse impacts of climate change on habitats and species	
O.5.1 Identify methods to mitigate the adverse impacts of climate change on habitats and species.	S.5.1.4 Determine and monitor climate indicators (both biological and physical) for information on the status and trends of climate impacts in the Plan Area. Priority is the loxiwe in Broughton (PMZ 7) – see Chapter 5. <i>Ongoing activity, new funding or resources required</i>
Conservation and Protection	
4.3.4 - Issue 2. Adequacy of existing marine conservation and protection tools	
O.2.1 Improve available tools for marine conservation and protection.	S.2.1.6 Work with appropriate government agencies to ensure that critical habitat spatial information for species at risk is accessible in different formats. <i>Ongoing activity, no new funding or resources required</i>
O.2.2 Improve management of existing conservation and protection areas.	S.2.2.1 Foster maintenance of ecological health and integrity through such measures as ecological studies, research, monitoring, management provisions and habitat protection for key marine species (including species of conservation concern). <i>Ongoing activity, new funding or resources required</i>
4.3.4 - Issue 3. Potential impacts and benefits of marine conservation and protection designations on marine uses and activities	
O.3.2 Increase economic benefits from marine conservation and protection areas to First Nations and local	S.3.2.1 Encourage First Nations and local community employment opportunities associated with new conservation and protection areas. <i>Start within 12 months, new funding or resources required</i>

communities.	
	S.3.2.2 Increase and improve marketing and promotion of appropriate uses and activities that are suitable to conservation and protection areas. <i>Ongoing activity, new funding or resources required</i>
4.3.4 - Issue 4. First Nations and local involvement in existing and new conservation and protection areas	
O.4.2 Increase First Nations role and influence over the identification, selection, planning and management of new marine conservation and protection areas.	S.4.2.3 Encourage greater involvement of local First Nations in marine conservation and protection area operations and management. <i>Ongoing activity, no new funding or resources required</i>
4.3.4 - Issue 5. Adequacy of surveillance of conservation and protection areas	
O.5.1 Enhance surveillance of activities within marine conservation and protection areas.	S.5.1.1 Collaborate with other organisations to enhance surveillance, management and enforcement capabilities within all marine conservation and protection areas, using techniques such as working with industry, increasing local involvement, conducting research on, and monitoring of, management plan effectiveness, and using existing facilities (e.g., staffed lighthouses). <i>Start within 6 months, new funding or resources required, governance structure required</i>
4.3.4 - Issue 6. Adequacy of conservation and protection areas to address climate change implications	
O.6.1 Incorporate climate change considerations in the establishment of new conservation and protection areas.	S.6.1.3 Initiate studies to evaluate the potential of climate-induced changes to species ranges and timing of seasonal migration, and shifts in ecological systems. <i>Start within 24 months, new funding or resources required</i>
Cultural and Heritage Resources	
4.3.5 - Issue 1. Adequacy of cultural and heritage resources inventories and site knowledge	
O.1.1 Improve inventories and site knowledge for cultural and heritage resources.	S.1.1.2 Undertake additional cultural and archaeological surveys and ongoing research and field verification for culture and heritage resources. <i>Ongoing activity, new funding or resources required</i>
4.3.5 - Issue 4. Level of First Nations involvement in cultural resources management for the Plan Area	
O.4.1 Increase Nanwakolas member First Nations role in cultural resources management.	S.4.1.1 Establish a provincial government/Nanwakolas member First Nations agreement to address such topics as surveillance and enforcement of cultural resources in Guardian Watchmen programs. <i>Start within 12 months, new funding or resources required, governance structure required</i>
Fishery Economy and Associated Values	
4.3.10 - Issue 3. Maintaining First Nations fishing activities	
O.3.1 Use available and new tools to reinforce the importance of First Nations fishing activities.	S.3.1.1 Support First Nations monitoring of marine activities as they relate to continued First Nations fishing activities. <i>Ongoing activity, no new funding or resources required</i>
4.3.10 - Issue 4. Environmental impacts of fishery activities	
O.4.1 Reduce the ecological impacts of commercial and recreational fisheries.	S.4.1.3 Encourage compliance through existing and new monitoring programs, information and education (e.g. guardian watchmen, electronic monitoring).

	<i>Ongoing activity, no new funding or resources required</i>
Governance and Collaborative Management	
4.3.11 - Issue 2. Adequacy of First Nations, local resident, local government and stakeholder participation in marine resource management	
O.2.1 Increase the participation of First Nations, local residents, local governments and stakeholders in marine resource management.	S.2.1.1 Increase opportunities for First Nations, local residents, local governments and stakeholders to provide input to marine management decisions. <i>Ongoing activity, new funding or resources required, governance structure required</i>
Regulatory Compliance and Enforcement	
4.3.12 - Issue 1. Capacity for on-the-water surveillance, compliance and enforcement	
O.1.1 Improve capacity for on the-water surveillance, compliance and enforcement activities.	S.1.1.1 Jointly explore funding sources, new opportunities, and the use of new technologies with appropriate government agencies and local marine surveillance and enforcement programs. <i>Ongoing activity, new funding or resources required, governance structure required</i>
	S.1.1.2 Coordinate training for marine surveillance and enforcement with relevant agencies and organisations. <i>Start within 12 months, new funding or resources required, governance structure required</i>
	S.1.1.3 Promote and/or renew existing, and investigate potential new, local educational opportunities (e.g., lighthouse keepers, StraitWatch) regarding cultural and heritage resources and ecological disturbances, including wildlife and pollution incidents. <i>Start within 12 months, new funding or resources required, governance structure required</i>
	S.1.1.4 Assess the adequacy of existing programs and regulations, and work within agency and organisation mandates to establish partnership agreement(s) for the efficient and effective use of local surveillance and enforcement personnel and equipment. <i>Start within 12 months, new funding or resources required, governance structure required</i>
	S.1.1.5 Assess provincial conservation and protection regulations and policy regarding cultural and heritage resources to improve surveillance and enforcement requirements, if required. <i>Start within 12 months, new funding or resources required, governance structure required</i>
4.3.12 - Issue 2. First Nations role in on-the-water monitoring, surveillance and enforcement within existing regulatory regimes	
O.2.1 Increase and enhance First Nations role in on-the water monitoring, surveillance and enforcement within existing regulatory regimes.	S.2.1.1 Work with relevant government agencies to identify opportunities where Guardian Watchmen could participate in the surveillance of marine activities and the enforcement of marine regulations. <i>Start within 6 months, new funding or resources required, governance structure required</i>
	S.2.1.2 Increase the use of Guardian Watchmen programs to assist with monitoring and facilitating compliance with tenure provisions, marine plans and existing regulations. This could include, but is not limited to, ecological conditions, conservancies and protected areas,

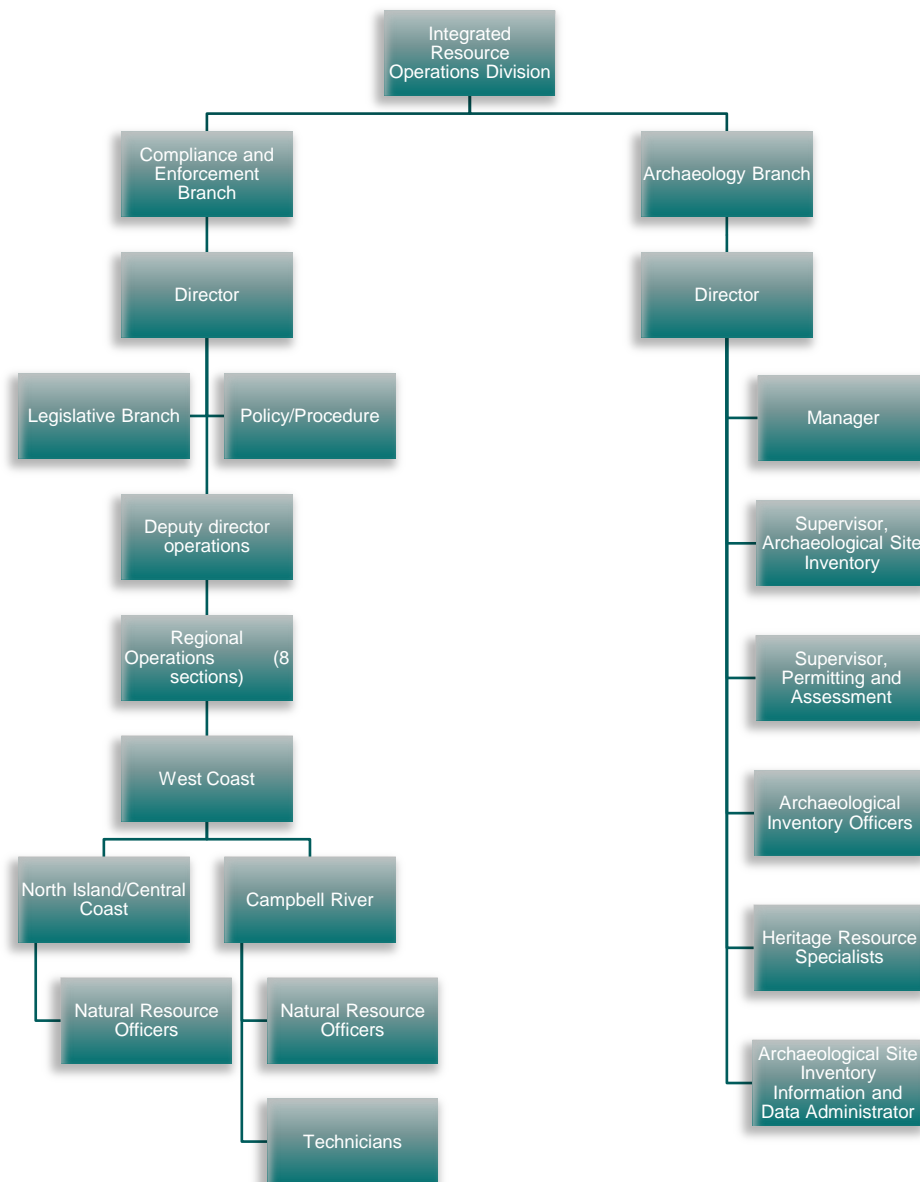
	<p>marine oil spill response, cultural and heritage resources, and related early warning systems. <i>Start within 12 months, new funding or resources required, governance structure required</i></p>
	<p>S.2.1.3 Identify opportunities for the Guardian Watchmen program to participate in surveillance of unregulated activities, such as public recreation and tourism. <i>Start within 12 months, new funding or resources required, governance structure required</i></p>
	<p>S.2.1.4 Identify funding and resource opportunities for enabling First Nations involvement in the Guardian Watchmen program. <i>Start within 12 months, new funding or resources required, governance structure required</i></p>
Research, Education and Training	
4.3.13 - Issue 1. Robustness of marine research program strategy	
O.1.1 Increase support for a robust marine research program strategy in BC.	<p>S.1.1.2 Work with organisations, institutions, industry and governments to develop robust and objective baseline research and monitoring programs. <i>Ongoing activity, new funding or resources required, governance structure required</i></p>
	<p>S.1.1.3 Provide local opportunities for hands-on and applied research training. <i>Ongoing activity, new funding or resources required, governance structure required</i></p>
4.3.13 - Issue 2. Adequacy of First Nations participation in marine research	
O.2.1 Increase participation of First Nations in marine research.	<p>S.2.1.1 Investigate grants and funding sources for increasing research by member First Nations on marine ecosystems, including improved inventories of traditional ecological knowledge. <i>Start within 12 months, new funding or resources required</i></p>
	<p>S.2.1.2 Develop programs to increase the collection of information by First Nations through partnerships with institutions, industry and governments. <i>Start within 12 months, new funding or resources required, governance structure required</i></p>
	<p>S.2.1.3 Encourage research institutions and industry to use First Nations in conducting research programs. <i>Ongoing activity, no new funding or resources required, governance structure required</i></p>
4.3.13 - Issue 3. Adequacy of marine sector training and education programs	
O.3.2 Increase understanding of the marine environment and regulations.	<p>S.3.2.1 Develop or expand education and awareness programs regarding prevention, regulatory compliance, restoration and recovery (e.g., Straitwatch, Observe Record and Report, marine mammal incident reporting). <i>Ongoing activity, new funding or resources required</i></p>
4.3.13 - Issue 4. Common understanding of marine ecosystems	
O.4.1 Address identified research gaps regarding marine ecosystems for implementing EBM in BC.	<p>S.4.1.2 Design monitoring and research programs to answer specific technical or management questions using appropriate government and/or academic standards. A priority area is Port Hardy (SMZ8) – See Chapter 5. <i>Ongoing activity, no new funding or resources required</i></p>

	<p>S.4.1.3 Encourage the timely provision of monitoring data collected by government as a requirement of tenures to nongovernment researchers. <i>Ongoing activity, no new funding or resources required</i></p>
<p>O.4.3 Improve understanding of marine ecosystem functions and dynamics.</p>	<p>S.4.3.3 Provide, and increase awareness of, opportunities for stewardship involving education, restoration and monitoring. <i>Start within 12 months, new funding or resources required, governance structure required</i></p>

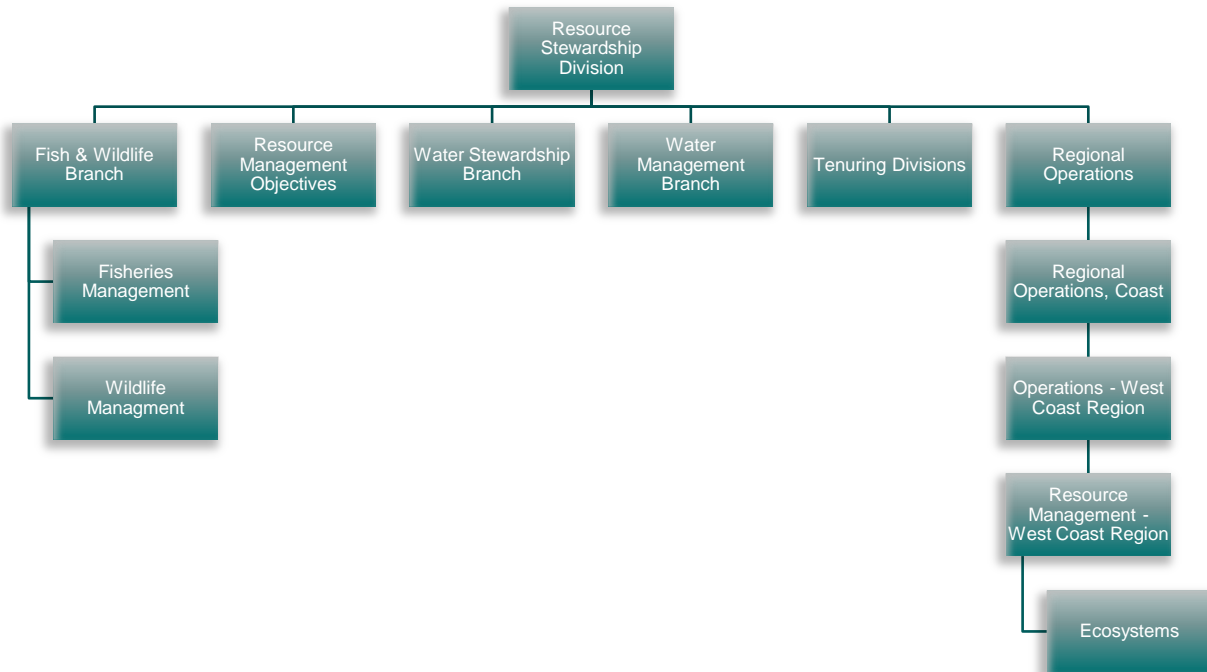
Appendix D: Detailed Organization Charts and Legislation for Relevant Divisions within FLNRO and MoE

Detailed Organizational Charts for Divisions within FLNRO and MoE

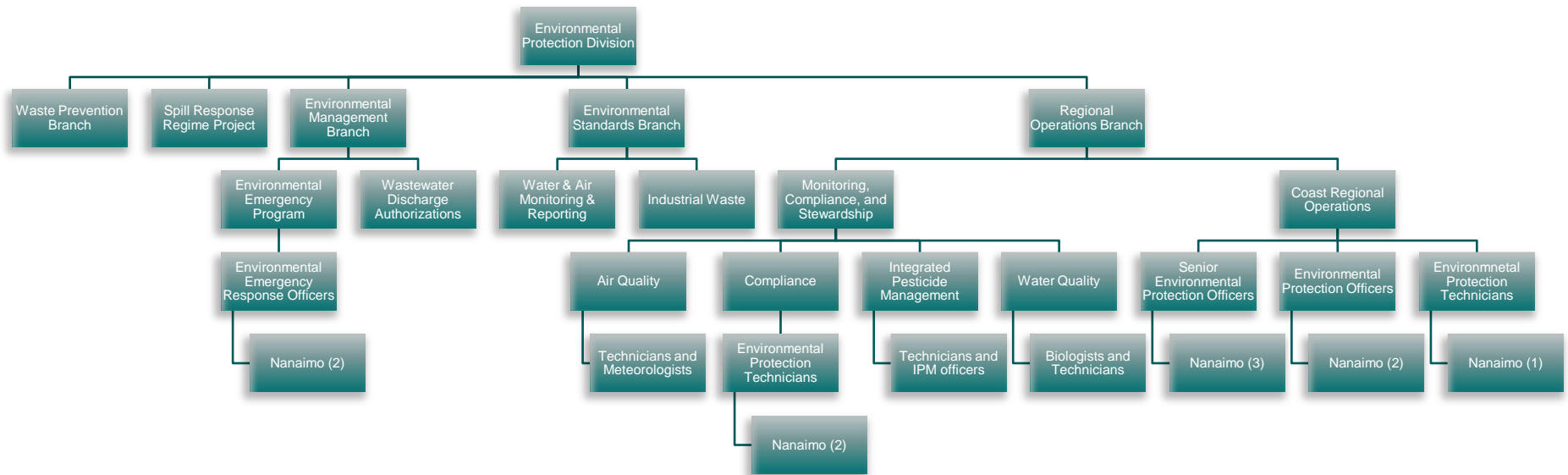
FLNRO Integrated Resource Operations Division



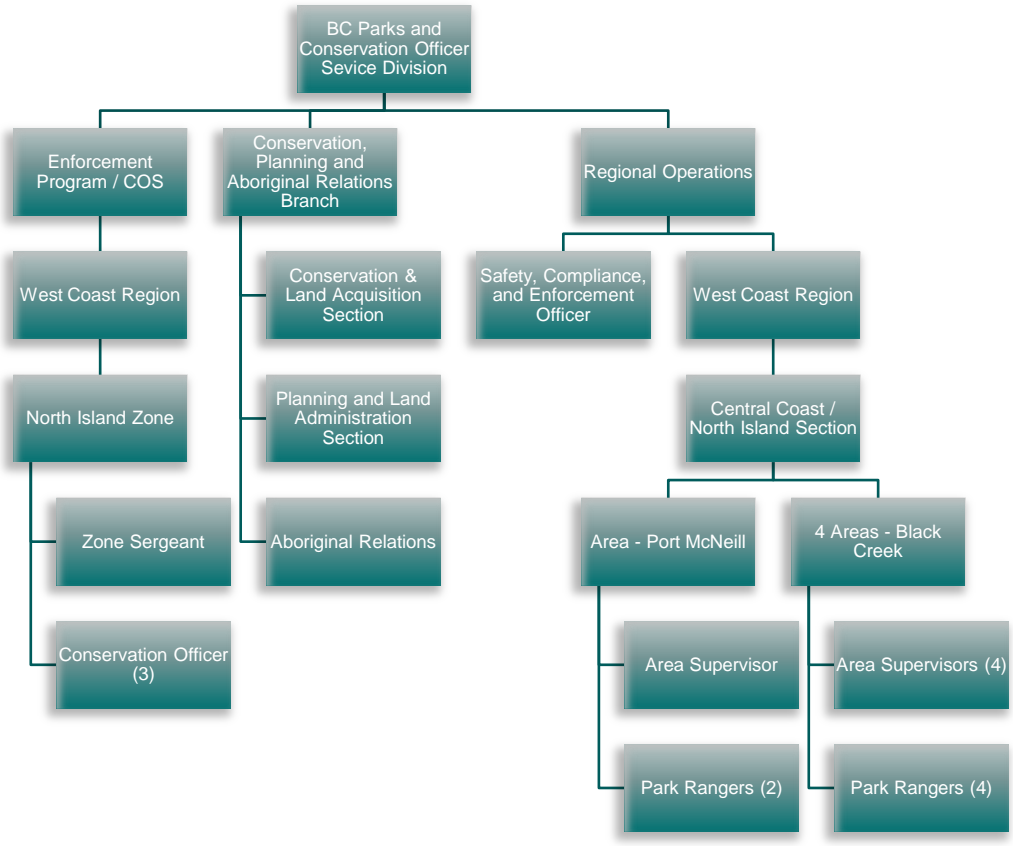
FLNRO Resource Stewardship Division



MoE Environmental Protection Division (simplified)



MoE Compliance and Enforcement Division (simplified)



Primary Legislation for Relevant Divisions in FLNRO and MoE

FLNRO

Boundary Act
 Creston Valley Wildlife Act
 Dike Maintenance Act
 Drainage, Ditch and Dike Act
 Environment and Land Use Act
 Environmental Management Act (s. 5 (f) as it relates to the portfolio of the Minister)
 Fish Protection Act
 Fisheries Act (Part 3 as it relates to the licensing of aquaculture)
 Flathead Watershed Area Conservation Act
 Forest Act (The Act except as it relates to the collection of public money other than a fine or the administration of deposits and securities payable)
 Forest and Range Practices Act (The Act except as it relates to the collection of public money other than a fine, the administration of deposits and securities payable and s. 166 as it relates to the portfolio of the Attorney General)
 Forest Practices Code of BC Act – Current Version (Post-January 31, 2004). (The Act except as it relates to the collection of public money other than a fine, the administration of deposits and securities payable and Part 9)
 Forest Practices Code of BC Act – Transition Version (Pre-January 31, 2004)
 Forest Stand Management Fund Act (The Act except as it relates to the collection of public money other than a fine or the administration of deposits and securities payable)
 Foresters Act
 Forestry Revitalization Act
 Forestry Service Providers Protection Act
 Greenbelt Act
 Heritage Conservation Act
 The Hunting and Fishing Heritage Act
 Industrial Operation Compensation Act
 Land Act
 Land (Spouse Protection) Act
 Land Survey Act
 Land Surveyors Act
 Land Title Act (The Act except s. 77.2; and s. 219 (1), (2), (3) (a) and (b), (4) - (9.2), (10), (11) (a), (12) and (14) as it relates to the portfolio of the Minister of Community, Sport and Cultural Development or to the portfolio of the Minister of Environment)
 Land Title and Survey Authority Act
 Land Title Inquiry Act
 Land Transfer Form Act
 Libby Dam Reservoir Act
 Ministry of Environment Act (s. 4 (2) (d) and ss. 4 (2) (b), (e), (f) and (g) and 6.1 as they relate to the portfolio of the Minister)



Ministry of Forests and Range Act - (The Act except the collection of public money other than a fine and the administration of deposits and securities and s. 4 (d) (ii) and (e) as it relates to the portfolio of the Minister of Agriculture)

Ministry of Lands Parks and Housing Act (The Act except ss. 5 (b), (6) and (9) as they relate to the portfolio of the Minister of Environment and ss. 5 (c), 8.1 and 10)

Motor Vehicle (All Terrain) Act

Muskwa-Kechika Management Area Act

Natural Resource Compliance Act

Private Managed Forest Land Act

Protected Areas Forests Compensation Act

Railway Act (s. 33)

Range Act (The Act except as it relates to the collection of public money other than a fine or the administration of deposits and securities payable)

Resort Timber Administration Act

Skagit Environmental Enhancement Act

Special Accounts Appropriation and Control Act (s. 5 Forest Stand Management Fund)

Tugboat Worker Lien Act

University Endowment Land Act (ss. 2 (1) (a) and (d) and 3 (b))

Water Act

Water Protection Act

Water Utility Act

Weed Control Act

Wildfire Act (The Act except as it relates to the collection of public money other than a fine or the administration of deposits and securities payable)

Wildlife Act (The Act except s. 3 (b) as that provision relates to the portfolio of the Minister of Environment; and ss. 6 and 108 (2) (a))

Woodworker Lien Act

Zero Net Deforestation Act

MoE

Beaver Lodge Lands Trust Renewal Act College of Applied Biologists Act Commercial River Rafting Safety Act
(only some sections relating to safety inspections and enforcement remain in force)

Creston Valley Wildlife Act

Dike Maintenance Act

Drainage, Ditch and Dike Act

Ecological Reserve Act

Environmental Assessment Act Environmental Management Act

Fish Protection Act

Hunting and Fishing Heritage Act

Industrial Operation Compensation Act Integrated Pest Management Act

Land Title Act (s. 219 only, insofar as it relates to the Portfolio of the Minister)

Ministry of Environment Act (all except s. 4 (2) (d))



Ministry of Lands, Parks and Housing Act
(ss. 3 (3), 5 (b), 6, insofar as they relate to the portfolio of the Minister)
Okanagan River Boundaries Settlement Act
Park Act
Protected Areas of British Columbia Act Skagit Environmental Enhancement Act
Sustainable Environment Fund Act
Water Act
Water Protection Act Water Utility Act Wildlife Act

No direct administration, but interest and/or shared responsibility for:

Canadian Environmental Assessment Act Community Charter
Fisheries Act (Canada)
Forest and Range Practices Act
Land Act
Local Government Act Mines Act
Species at Risk Act

MoE (BC Parks)

Primary Legislation

Park Act
Wildlife Act
Environment and Land Use Act
Protected Areas of BC Act Ecological Reserve Act
Environmental Management Act

MoE (Environmental Protection Division)

Primary Legislation

Environmental Management Act
Emergency Program Act

Integrated Pest Management Act MoE (Water Stewardship Division)

Primary Legislation

Dike Maintenance Act
Drainage, Ditch and Dike Act
Water Act
Water Protection Act
Water Utility Act

MoE (Ocean and Marine Fisheries Division)

Primary Legislation

Fisheries Act (Federal - does not administer)



Oceans Act (Federal - does not administer)

Direct Administrative and Enforcement Responsibilities

Fisheries Act (BC)

Fish Inspection Regulation (BC) - data collection from aquaculture licence holders



Final Report



ESSA

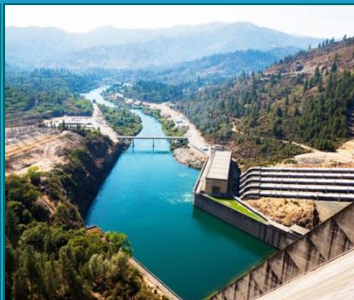
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YEARS



Environmental & Cumulative
Effects Assessment



Climate Change Adaptation &
Risk Reduction



Aquatic Species at Risk &
Water Resource Management



Terrestrial Ecology &
Forest Resource Management