



North Coast-Skeena First Nations
Stewardship Society &
Province of British Columbia

NORTH COAST MARINE PLAN OVERVIEW

2015

North Coast Marine Plan Overview

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Photo by Jessica Hawryshyn

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Photo by Gitga'at Guardian Program

NORTH COAST MARINE PLAN VISION STATEMENT

The ecological and cultural richness of the North Coast region is maintained and enhanced. The diverse territories and productive marine resources support healthy and prosperous communities for the benefit of current and future generations. Governance structures are collaborative, cooperative and integrated and enable ongoing public participation in plan implementation. Management frameworks incorporate evolving information and adapt to changing social, technological and environmental conditions.

PURPOSE OF THE PLAN

The purpose of the North Coast Marine Plan is to provide recommendations for achieving ecosystem health, social and cultural wellbeing, and economic development through an ecosystem-based approach to planning and management. The plan provides recommendations for developing and maintaining resilient marine ecosystems and sustainable economies for North Coast communities. The plan focuses on direction for managing marine areas, uses and activities that are informed by First Nations strategic marine use plans and provincial strategic priorities, and where the Province of British Columbia (BC) has jurisdiction.



Photo by Jessica Hawryshyn

MARINE PLANNING PARTNERSHIP FOR THE NORTH PACIFIC COAST

The North Coast Marine Plan was developed through collaboration between the Province of BC, as represented by the BC Ministry of Forests, Lands and Natural Resource Operations, and the Gitga'at, Gitxaala, Haisla, Kitselas, Kitsumkalum, and Metlakatla First Nations represented by the North Coast-Skeena First Nations Stewardship Society.

The plan was prepared as part of the Marine Planning Partnership for the North Pacific Coast (MaPP) initiative, whose partners are the Province of British Columbia and 18 member First Nations. Sub-regional marine plans were developed for Haida Gwaii, the North Coast, the Central Coast, and North Vancouver Island.

PLAN AREA DESCRIPTION

The North Coast plan area (Figure 1) includes an impressive stretch of coastline that is indented with deep fjords and dotted with thousands of islands. Distinct marine ecosystems provide spawning and/or schooling areas for fish, including pelagic species such as salmon, eulachon and herring. The plan area is also important for a variety of seabirds, marine mammals and other marine fauna and flora.

Prince Rupert, Terrace and Kitimat are the largest communities in the plan area and support an overall population of approximately 42,000 people. Commercial fisheries and associated processing facilities, and logging have supported communities along the coast since the early 1900s, and these activities continue to be important to the wellbeing of coastal communities.

The North Coast is a region of profound beauty, significant ecological diversity and remarkable cultural richness.



Photo by Jessica Hawryshyn

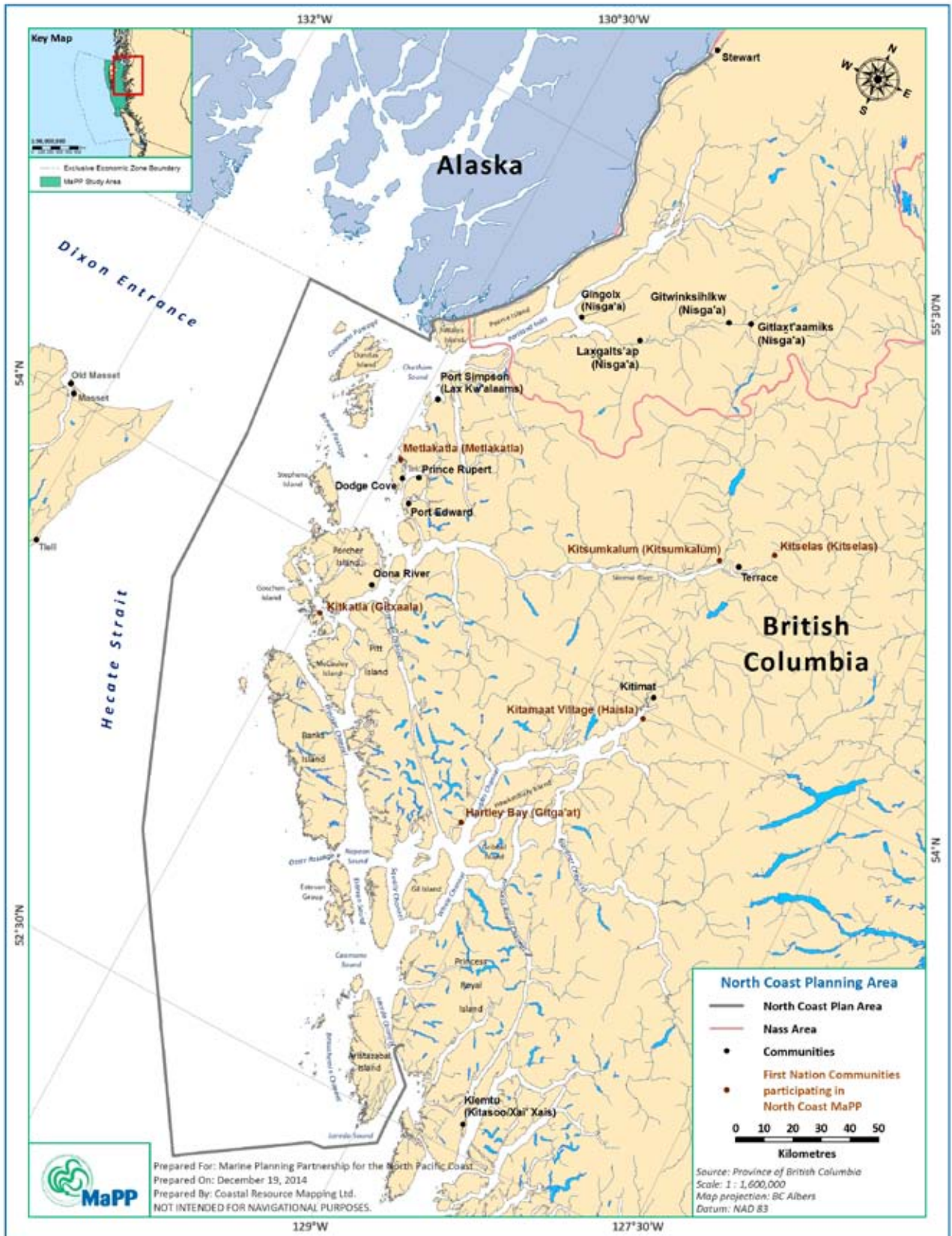


Figure 1. North Coast Plan Area.

SCOPE AND JURISDICTION

The North Coast Marine Plan focuses on the marine areas and uses where, as between the Government of British Columbia and Canada, the Province has legal jurisdiction and regulatory authority, namely the foreshore (i.e., the intertidal zone), coastal “inland waters” on the outer coast, and the lands covered by these waters. The plan does not make recommendations on matters that the Province believes are solely within federal jurisdiction. Similar to land use plans, the marine plan seeks to develop a framework, for the future, for joint, shared and collaborative management of marine and coastal areas around the North Coast.

The plan covers the territories of the member and partner Nations of the North-Coast Skeena First Nations Stewardship Society: the Gitga’at, Gitxaala, Haisla, Kitselas, Kitsumkalum, and Metlakatla First Nations. First Nations laws and traditions hold the Nations responsible for ensuring that the natural and cultural heritage of their territory is passed on to future generations.

The Lax Kw’alaams First Nation has territory in the plan area but did not directly participate in the development of the plan. The marine plan also includes areas that are covered by the Nisga’a Treaty, a constitutionally-protected agreement, entered into by the Nisga’a Nation, British Columbia and Canada. Areas subject to the provisions of the Nisga’a Treaty include the Nass Area, which includes the Nass Wildlife area.

The Gitga’at, Gitxaala, Haisla, Kitselas, Kitsumkalum, and Metlakatla First Nations have each completed and approved community-level marine use plans that provide strategic direction regarding the management, use and protection of each Nation’s territories. These plans reflect the specific values and priorities of each Nation, and informed the development of the MaPP North Coast Marine Plan.



Photo by Renny Talbot

A close-up photograph of three large salmon, likely Chinook, lying on a weathered wooden surface. The fish are positioned vertically, with their heads at the bottom and tails at the top. Their mouths are wide open, revealing sharp teeth and pinkish-red gills. The salmon have a vibrant red-orange color on their upper bodies and a darker, almost black, color on their lower bodies and heads. The background is a textured wooden surface with some debris and shadows.

First Nations have managed the territories and resources of the North Coast for millennia, and continue to rely on the bountiful and diverse ecosystems of the coast to sustain their vibrant cultures and economies.



Photo by Jessica Hawryshyn

PLANNING APPROACH

The North Coast Marine Plan brings together science and Aboriginal knowledge. It was developed using the best available ecological, cultural, social and economic data from multiple sources compiled and analysed by a joint technical team and contract support. Information was drawn from government reports and publications, academic literature, industry or sector publications and submissions, discussions with experts, and Aboriginal and local knowledge. The plan was also informed by data sets that were made available through the British Columbia Marine Conservation Analysis (BCMCA), further supplemented with information provided by plan participants.

A MaPP Science Coordinator assisted with information and product review, and a Science Advisory Committee was established to provide expert advice. The committee consisted of scientists knowledgeable in marine ecology, ecosystem services, fisheries science, spatial analysis, marine spatial planning, ecosystem-based management, economics, traditional ecological and local knowledge, and social sciences.

A North Coast Marine Plan Advisory Committee was established to provide ongoing stakeholder input during plan development. Additional public and stakeholder engagement was carried out through public meetings and outreach.

The MaPP planning process uses a marine ecosystem-based management (EBM) approach, which is consistent with First Nations' resource management approaches and with provincial government direction in resource management. EBM is built on principles of ecological integrity, human wellbeing, and governance and collaborative management. EBM differs from sector-based resource management in that it defines management strategies for entire systems, not individual components of the system, with humans as an explicit part of the marine ecosystem. Marine EBM is widely considered to be a crucial approach for effective resource management of coastal and marine ecosystems.



Marine interests represented by the North Coast Marine Plan Advisory Committee included forestry operations, commercial tourism and recreation, conservation, shellfish aquaculture, local government, public recreation, recreational fishing services, commercial fisheries and renewable energy.



GENERAL MANAGEMENT DIRECTION

Chapters 3 and 4 of the North Coast Marine Plan set out objectives and strategies to guide sustainable marine management within an EBM framework for the following key topic areas:

- | | | |
|---|--|---|
| » Governance | » Marine Response | » Marine Fisheries Economy |
| » Cumulative Effects Assessment | » Land Policies and Procedures | » Economic Wellbeing |
| » Climate Change Adaptation and Mitigation | » Renewable Energy | » Heritage Sites and First Nations Cultural Areas |
| » Monitoring, Reporting and Adaptive Management | » Shellfish and Marine Plant Aquaculture | » First Nations Resource Use and Management |
| » Marine Protection | » Marine-based Forestry Operations | |
| » Marine Pollution | » Tourism and Recreation | |

Objectives and strategies in the plan were identified by the joint North Coast technical team based on provincial and First Nations priority interests. Topics were scoped and refined with input from the North Coast Marine Plan Advisory Committee and regional MaPP guidance.



Photo by Gilian Dusting

NORTH COAST MARINE SPATIAL PLAN

Chapter 5 of the North Coast Marine Plan provides additional management direction through spatial zoning. Marine zoning is intended to inform decision-makers and proponents of recommended uses for activities within the jurisdictional mandate and authority of the provincial and First Nations governments. The designation of marine space into discrete zones is a common component of integrated marine planning. This practice is consistent with strategic land use planning in BC, which allocates space to specific zones to alleviate competition and conflict and/or identify priority uses and values.

As part of the marine planning process, the North Coast-Skeena First Nations Stewardship Society member and partner Nations and the Province of British Columbia used three zone types¹: a General Management Zone (GMZ), Special Management Zone (SMZ) and Protection Management Zone (PMZ). The three zone types are shown in Figure 2. Figure 3 shows the North Coast plan area zoning. All spatial zones in the plan provide policy guidance intended to inform the decision making process regarding uses and activities in the areas identified.

- » **General Management Zone (GMZ) (78.29 percent of plan area)** – allocates space for a wide range of public, private and community uses and activities that are governed or managed using an EBM framework.
- » **Protection Management Zone (PMZ) (12.76 percent of plan area)** – allocates space primarily for conservation purposes or objectives, and may provide a basis for protecting localised conservation values. To achieve protection of marine values while still providing for sustainable economic opportunities, a range of management objectives are recommended and expressed through use of the International Union for Conservation of Nature (IUCN) Protected Area Management Categories. Interpretation of the IUCN categories does not imply management direction for marine uses and activities outside of provincial regulatory authority.

There are 31 Protection Management Zones (PMZs) identified in the North Coast Marine Plan, ranging in size from 1.0 km² to 470.2 km². PMZs will help to conserve and/or protect the range of values that marine environments provide with a primary emphasis on maintaining marine biodiversity, ecological representation, and special features such as pinniped haulout sites or rookeries, and significant foraging grounds for species.



¹ The GMZ, PMZ and SMZ percentages do not add up to 100% due to the presence of Central Coast zones in the overlap area (1.37% of plan area) and existing protected areas (2.74% of plan area).

» **Special Management Zone (SMZ) (4.83 percent of plan area)** – allocates space for high priority and/or high potential sustainable marine uses and activities, including economic development and/or cultural uses and activities that require specific environmental conditions or locations. The SMZ includes four categories:

- **Shellfish Aquaculture SMZ** (0.37 percent of plan area): places an emphasis on the growth and development of the shellfish aquaculture industry.
- **Tourism and Recreation SMZ** (1.75 percent of plan area): places an emphasis on ecosystem-based tourism and recreation activities and uses.
- **Renewable Energy SMZ** (2.54 percent of plan area): places an emphasis on the growth and development of the renewable energy industry.
- **Cultural SMZ** (0.17 percent of plan area): places an emphasis on continued First Nations use of marine resources and access to cultural resources and activities, especially those for spiritual, social, food and fibre harvest, and educational and ceremonial purposes.

Zones are accompanied by a “Recommended Uses and Activities Table” that identifies marine uses and activities that are considered Acceptable (✓), Conditionally Acceptable (O), or Not Acceptable (X) for a particular zone. Uses and activities that are conditionally acceptable are subject to additional management requirements described as ‘conditional statements’. All uses and activities are defined in **Appendix 1** of the North Coast Marine Plan, and a complete list of conditional statements is available in **Appendix 3**.



Photo by Jessica Hawryshyn

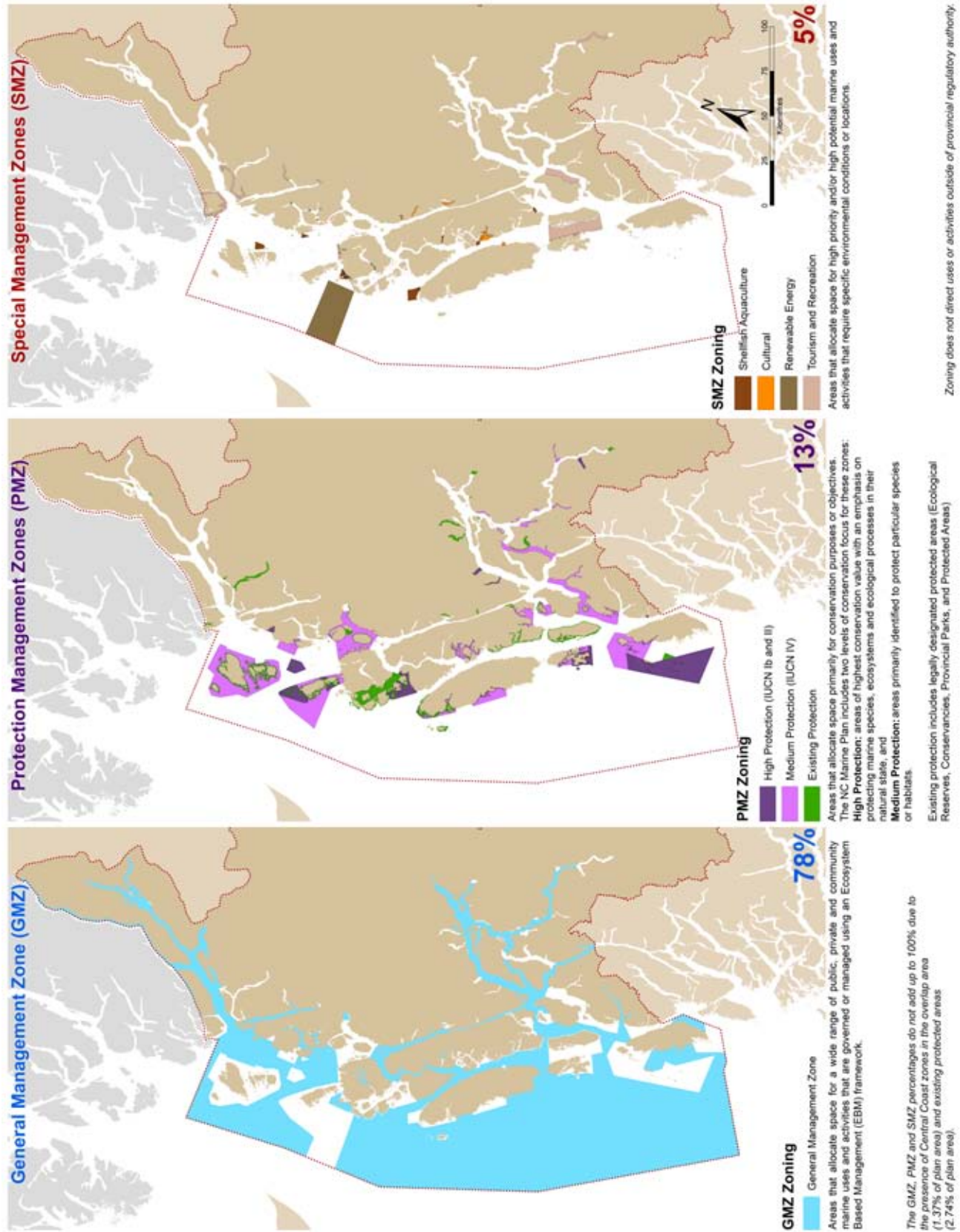
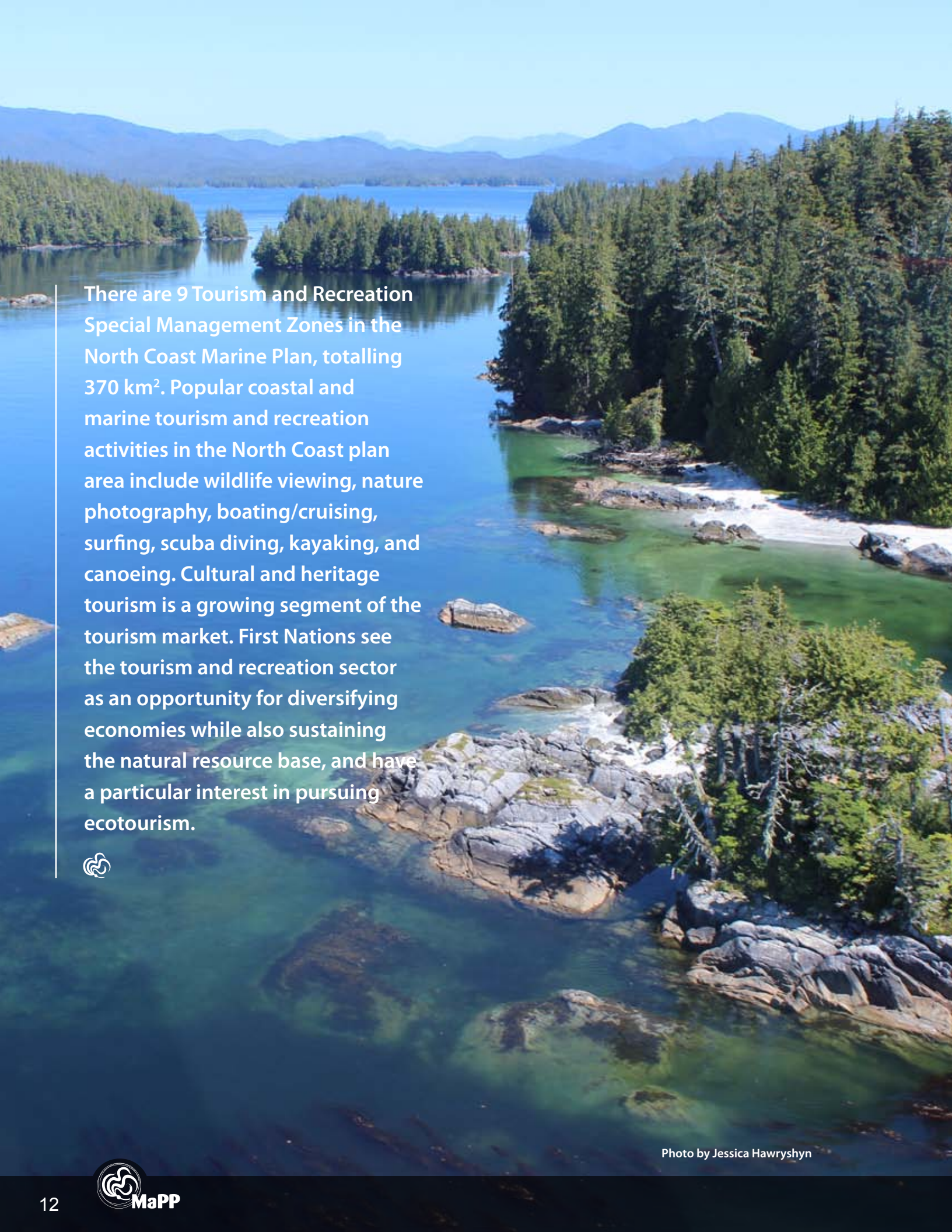


Figure 2: North Coast Zoning Summary Map.



There are 9 Tourism and Recreation Special Management Zones in the North Coast Marine Plan, totalling 370 km². Popular coastal and marine tourism and recreation activities in the North Coast plan area include wildlife viewing, nature photography, boating/cruising, surfing, scuba diving, kayaking, and canoeing. Cultural and heritage tourism is a growing segment of the tourism market. First Nations see the tourism and recreation sector as an opportunity for diversifying economies while also sustaining the natural resource base, and have a particular interest in pursuing ecotourism.



Photo by Jessica Hawryshyn

The North Coast Technical Team considered various factors when determining zoning boundaries, as described in Table 1.

Table 1. Evaluation criteria for boundary delineation and zone types.

Factor	Application
Existing designations	Area boundaries considered existing designations to maximise compatibility between proposed zones and existing terrestrial and marine designations. <i>Examples - BC Ecological Reserves, Conservancies, Rockfish Conservation Areas</i>
Ecological values	Area boundaries were delineated to capture ecological values and specific ecological features of interest. <i>Examples - eelgrass and kelp beds, consistent herring spawning areas, estuaries, areas with a high abundance of coral and sponge, bird colonies</i>
Cultural and Aboriginal use values	Area boundaries were delineated to capture important cultural and Aboriginal use areas that require spatial protection. Cultural and Aboriginal use data is both spatial and non-spatial. <i>Examples - sensitive locations, including those of cultural and spiritual importance, important food gathering areas, village sites</i>
Current uses and activities	Area boundaries were drawn to minimise conflict and ensure continued economic opportunities in the region based on the evaluation of current uses and activities.
Future economic opportunities	Area boundaries were delineated to facilitate future economic opportunities in the region based on the evaluation of potential future uses and activities. <i>Examples - future frequency of use for log handling, high value sites for marine-based renewable energy, shellfish aquaculture capability, and tourism and recreation opportunity</i>
Adjacent land use	Area boundaries considered adjacent land use to maximise compatibility between proposed zones and terrestrial areas. <i>Examples - private land, existing terrestrial tenures, parks and protected areas</i>
Results of Marxan analyses	Area boundaries were delineated based on results from sub-regional Marxan analyses that used spatial data sets compiled by the British Columbia Marine Conservation Analysis to identify areas of high conservation value and representative areas of biodiversity.
Buffer zones	Areas of lower restriction surrounding core areas of higher restriction were applied in some instances to provide additional protection while still allowing some activities to occur.
Ease of identification, navigation and management	Area boundaries were designed for easy identification, to facilitate navigation on the water, and for compliance and enforcement purposes. <i>Examples - straight lines, jaws of land (boundary established between two visible terrestrial points)</i>

To support data compilation and analysis, MaPP developed the “Marine Planning Portal” using the SeaSketch application. The Portal is an online mapping and data viewing tool that allows users to view and analyze more than 250 data layers together to learn more about the North Pacific Coast. The North Coast Marine Spatial Plan can be viewed on the Portal at <http://www.seasketch.org/projects>.



North Coast Marine Spatial Plan: Profile of Group 2

The North Coast plan area was divided into five geographic groups to better display the management zones. The spatial recommendations for Group 2 are profiled for illustrative purposes (Figure 4). The recommended uses and activities for each zone in Group 2 are shown in Table 2. Maps of other areas and associated recommended uses and activities can be found in **Chapter 5** of the plan.

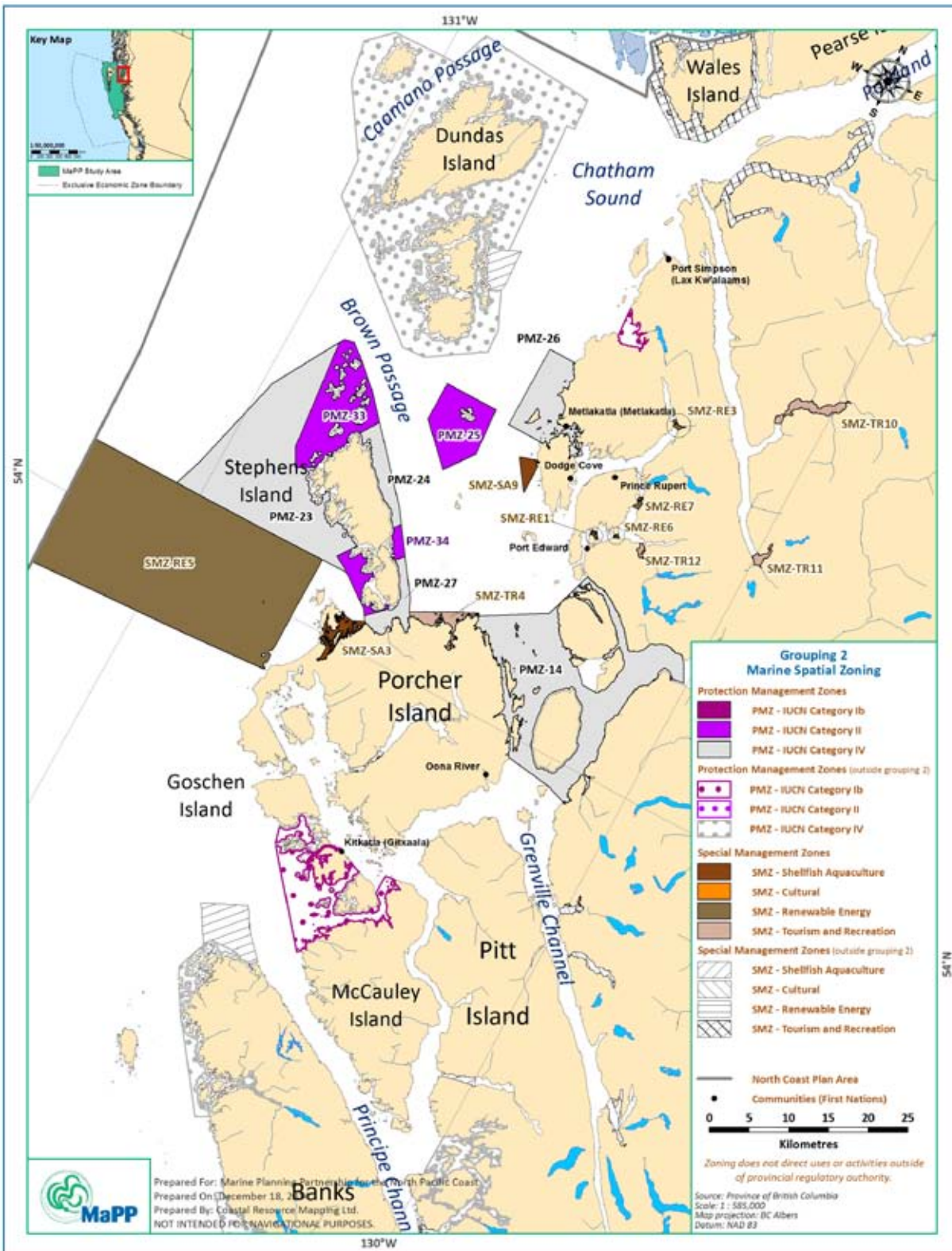


Figure 4. North Coast Group 2 Zoning Map.

Table 2: Recommended Uses and Activities Table.

Category	Site Name	Zone Type										SMZ	SMZ	SMZ	SMZ	SMZ					
		Zone Type																			
		Zone Type																			
Marine Uses and Activities	Zone Type	GMZ	PMZ**					PMZ**					SMZ	SMZ	SMZ	SMZ					
Aquaculture	Bottom Aquaculture Siting – Marine Plants, Shellfish, Other Invertebrates	✓	O ^{2,4}	O ^{2,4}	X	O ⁵	O ⁵	O ⁵	O ^{2,4,5}	X	✓	O ^{12,16}	O ¹²								
	Off-Bottom Aquaculture Siting – Marine Plants, Shellfish, Other invertebrates	✓	O ^{2,4}	O ^{2,4}	X	O ⁵	O ⁵	O ⁵	✓	X	✓	O ^{12,16}	O ¹²								
Energy	Off-Bottom Aquaculture Siting – Finfish	X	X	X	X	X	X	X	O ^{2,4,5}	O ¹²	X	X	X								
	Renewable Energy Generation	✓	X	X	X	O ⁵	O ⁵	O ⁵	O ^{2,4,5}	O ¹²	O ^{12,16}	✓									
Industry	Forestry Operations – Log Handling and Storage	✓	X	X	X	O ¹⁰	O ¹⁰	O ¹⁰	O ¹⁰	O ¹²	O ^{10,17}	O ¹²									
	Forestry Operations – Helicopter Log Drop Sites	✓	O ^{2,5}	O ^{2,5}	O ^{2,5}	✓	✓	✓	✓	O ¹²	O ^{10,17}	O ¹²									
Infrastructure	Mining Operations	X	X	X	X	X	X	X	X	X	X	X	X								
	Commercial and Recreational Anchorages*	✓	O ^{2,4}	O ^{2,4}	O ^{2,4}	O ⁵	O ⁵	O ⁵	O ^{2,4,5}	O ^{12,15}	✓	O ¹³									
	Float Homes	✓	X	X	X	X	X	X	X	X	✓	X									
	Floating Lodges	✓	O ^{2,5}	X	X	O ⁵	O ⁵	O ⁵	X	O ^{2,5}	X	✓	X								
	Level 1 Docks, Wharves & Facilities	✓	O ^{2,4}	O ^{2,4}	O ^{2,4}	O ⁵	O ⁵	O ⁵	O ^{2,4,5}	O ¹²	✓	O ¹²									
Recreation/ Tourism	Level 2 Docks, Wharves & Facilities	✓	X	X	X	X	X	X	X	X	O ^{12,16}	X									
	Commercial Recreation and Tourism	✓	O ^{2,4}	O ^{2,4}	O ^{2,4}	✓	✓	✓	O ^{2,4,5}	✓	O ^{12,15}	✓	O ¹²								
Research	Public Recreation and Tourism	✓	O ^{2,4}	O ^{2,4}	O ^{2,4}	✓	✓	✓	O ^{2,4,5}	✓	O ^{12,15}	✓	O ¹²								
	Research	✓	O ^{1,4}	O ^{1,4}	O ^{1,4}	✓	✓	✓	✓	✓	✓	✓	✓								
Utilities	Linear Utilities	✓	O ^{4,9}	O ^{4,9}	O ²	O ⁵	O ⁵	O ⁵	O ^{2,4,5}	O ^{12,15}	O ^{12,16}	✓									
	Point Source Utilities	✓	X	X	X	X	X	X	O ^{2,3,4,5}	X	O ^{12,16}	✓									
***Where a use/activity is outside provincial regulatory authority, the approval of that use/activity is subject to the decision-making process(es) of the responsible authorities. Absence does not imply that the use/activity was not considered or evaluated or is of no interest. The reader should contact the appropriate management authority(ies) for direction on uses/activities in such circumstances. Zoning does not direct uses or activities outside of provincial regulatory authority.																					
**Anchorage restrictions do not apply to commercial towboat reserves and provincially designated boat havens, nor do they apply to vessels in distress or other emergency situations.																					
Aboriginal uses, including practices for food, social and ceremonial purposes, continue in accordance with legal obligations.																					
Uses and activities are considered to be 'acceptable' subject to applicable laws, policy and relevant agreements. Acceptability of any use/activity does not guarantee that a use/activity will be approved.																					
Uses and activities are considered to be 'conditionally acceptable' subject to applicable laws, policy and relevant agreements, and provided they are consistent with (adhere to) the plan conditions. Conditional acceptability of any use/activity does not guarantee that a use/activity will be approved.																					
Uses and activities are considered to be 'not acceptable' and should not be approved.																					
Note: This table does not alter the Province of British Columbia and First Nations referral obligations under existing agreements.																					

PLAN IMPLEMENTATION AND MONITORING

While all of the objectives and strategies identified in the plan are important elements of an integrated EBM approach for North Coast waters, priority outcomes have been identified for near-term implementation (Table 3).

Chapter 6 of the plan should be consulted for full details on near-term implementation priority outcomes and associated actions.

The goal is to implement all strategies over the longer term (five years and beyond), as funding and other resources permit. Ongoing communication and collaboration will be essential as work is advanced on all plan strategies.



Photo by Birgitte Bartlett

Table 3: Priority Topics and Key Outcomes Identified For Near-Term Implementation.

Topic	Key Outcomes
Governance	<ul style="list-style-type: none"> » Meaningful government to government partnerships are established. » Collaborative marine governance and implementation structures are developed. » First Nations governance, management, and enhancement of resources are supported. » Capacity is enhanced for resource protection and management.
Collaboration and Consultation	<ul style="list-style-type: none"> » Collaboration is formalized, information is shared, and actions are coordinated. » Consultation processes are coordinated, efficient and thorough.
Cumulative Effects	<ul style="list-style-type: none"> » Cumulative effects are understood and data needs identified. » Cumulative effects are managed and mitigated, and resource values are sustained.
Stewardship	<ul style="list-style-type: none"> » Important ecological and cultural values are identified for protective management. » Heritage resources, cultural practices and archaeological sites are protected. » The adverse effects of climate change are anticipated and adaptive capacity is strengthened.
Sustainable Economies	<ul style="list-style-type: none"> » Opportunities for sustainable economic development are identified and supported through an EBM framework.

It is anticipated that a comprehensive evaluation of the plan will be conducted collaboratively every five years, and will consider emerging management needs and priorities, and results from annual reports. EBM indicators will be used to track changes in the state of the North Coast ecological and human wellbeing systems over time.

The North Coast Marine Plan is intended to be a living document that will be updated over time to remain relevant as issues, priorities and conditions change. This adaptive approach will allow for improved management and responsible stewardship over both the short and long term.

Cumulative effects are changes to environmental, social and economic values that are caused by the combined effects of past, present and reasonably foreseeable actions or events. Cumulative effects assessments are important because the incremental and combined effects of individual actions or events may be significant, even though the effects of each action, when independently assessed, are considered to be insignificant.



Photo by Jessica Hawryshyn



WHERE TO GO FOR MORE INFORMATION

The Marine Planning Partnership:
<http://mappocean.org/>

MaPP's Marine Planning Portal (using
the Seasketch application):
<http://www.seasketch.org/projects/>