

MARINE PLAN PARTNERSHIP  
FOR  
THE NORTH PACIFIC COAST

NORTH COAST

# ANNUAL REPORT

2018



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*Photo Credit: Maya Paul*

## MESSAGE FROM THE NORTH COAST IMPLEMENTATION TEAM

We are pleased to present the 2018 annual report for implementation of the North Coast Marine Plan. This report provides an opportunity to share our activities, achievements and challenges for the period ending March 31, 2018.

Implementation of the Marine Plan Partnership (MaPP) North Coast Marine Plan is an ongoing collaborative effort resulting from the partnership between the Province of British Columbia and the Gitga'at<sup>1</sup>, Gitxaala, Kitselas and Kitsumkalum Nations, with co-ordination support from the North Coast-Skeena First Nations Stewardship Society (NCSFNSS).

The North Coast Implementation Technical Team has been working hard over the last year to move implementation of the North Coast Marine Plan forward. We hope you will enjoy reading about the progress that was made and we look forward to continuing to work towards full implementation of the North Coast Marine Plan.

Sincerely,

Ethan Griesbach (Co-Lead, North Coast-Skeena First Nations Stewardship Society)

Karen Topelko (Co-Lead, Government of British Columbia)

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<sup>1</sup> As of May 24, 2018, Gitga'at's engagement in MaPP is independent and not co-ordinated through the North Coast-Skeena First Nations Stewardship Society.

## ACKNOWLEDGMENTS

The North Coast Technical Team co-leads would like to acknowledge and thank all those involved in implementation of the North Coast Marine Plan. This past year required dedicated work by dozens of people from the Province of British Columbia, the North Coast-Skeena First Nations Stewardship Society staff, and Metlakatla<sup>2</sup>, Gitga'at, Gitxaala, Haisla, Kitselas and Kitsumkalum Nations. Special thanks to Quinton Ball, Cindy Barwell, Mark Biagi, Caroline Butler, Kyle Clifton, Robert Grodecki, Jessica Hawryshyn, James Herbert, Mike Jacobs, Steve Kachanoski, Janine Lemire, Allan Lidstone, Rebecca Martone, Allison Paul, Maya Paul, Chris Picard, Jean-Philip Sargeant, Carmen Tattersfield, Bruce Watkinson, and Ross Wilson.

In addition, stakeholders and local governments continue to provide valuable advice through participation in the North Coast Marine Plan Advisory Committee. We thank members and their alternates for their continued dedication and support.

The North Coast team would also like to thank MaPP contractors, Josie Byington, Megan Dickinson, Fiona Kilburn, and Romney McPhee. They have helped us to make significant progress on implementation over the last year.

Lastly, none of this would be possible without the ongoing financial support of Tides Canada on behalf of MaPP implementation funding organizations.



*Photo Credit: Allison Paul*

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<sup>2</sup> On November 29, 2017, Metlakatla withdrew from the North Coast-Skeena First Nations Stewardship Society.



## 1. CONTEXT

The North Coast Marine Plan is the result of a collaborative planning process led by the Province of British Columbia (B.C.) and Metlkatla, Gitga'at, Gitxaala, Haisla, Kitselas and Kitsumkalum Nations, with co-ordination support from the North Coast–Skeena First Nations Stewardship Society. This planning process is part of the broader MaPP initiative.

During writing of the North Coast Marine Plan, objectives and strategies were developed to achieve marine ecosystem health, social and cultural well-being, and economic development through an ecosystem-based approach to planning and management. Ecosystem-based goals and principles were also applied in the development of the North Coast spatial plan, which identifies where specific marine uses and activities are recommended. Marine space is allocated to one of three zone types: general management, protection management, and special management. The partners' approach to implementing marine plan objectives, strategies and spatial recommendations is outlined in the Implementation Agreement, signed in 2016 (available at [www.mappocean.org](http://www.mappocean.org)).

The marine plan focuses on direction for managing marine and coastal areas, uses and activities that are informed by First Nations strategic marine use plans and provincial strategic priorities, and where the Province of B.C. has jurisdiction. In the spirit of fully comprehensive integrated management, the partners continue to engage the federal government on issues that are of interest to the Government of Canada. For example, governments are working together to plan a network of marine protected areas (MPA) in the Northern Shelf Bioregion, which shares the same footprint as the MaPP initiative.

While all of the objectives and strategies in the North Coast Marine Plan are important elements of an integrated ecosystem-based management approach for North Coast waters, a number of priorities were identified for near-term implementation, as outlined in Chapter 6 of the plan. Priority topics include governance, collaboration and consultation; cumulative effects; sustainable economies; and stewardship. Annual work plans and budgets guide implementation of the priorities; they describe the actions associated with each strategy, identify the parties involved, estimate the resources required and define general timelines to achieve implementation. Work plans are developed with First Nation marine planning community co-ordinators and B.C. government staff, and reflect the interests, needs and capacities of MaPP partners.

This annual report outlines key achievements, progress and challenges related to implementation of the North Coast annual work plan and budget for the period April 1, 2017 to March 31, 2018 (2017-2018).

An annual report for the MaPP region is also available on the MaPP website (<http://mappocean.org>). The regional report describes progress on implementation of the MaPP Regional Action Framework, a document that identifies actions that the provincial and First Nation governments recognize as being most appropriately implemented at the regional scale. Actions outlined within it are consistent with, and support, sub-regional marine plan recommendations from the four MaPP sub-regions: Haida Gwaii, North Coast, Central Coast and North Vancouver Island. The North Coast Technical Team provided support for implementation of a number of regional actions in 2017-2018, and they are documented within this annual report.

## 2. IMPLEMENTATION PROGRESS



*Photo Credit: Maya Paul*

This section highlights key activities and achievements from 2017-2018 North Coast Marine Plan implementation. The implementation activities are organized under five MaPP strategic outcomes:

1. *Collaboration and Governance*
2. *Marine Zoning*
3. *Stewardship Monitoring and Enforcement*

4. *Economic Development and Healthy Communities*
5. *Climate Change and Adaptive Management*

The priority strategies advanced in 2017-2018 are listed in table format, organized by strategic outcome. A scorecard shows the implementation status of each strategy. The scoring categories are as follows:

- ***Complete/functioning:*** Of the discrete activities intended to be undertaken for this strategy, all are completed. Of the continuous activities intended to be undertaken for this strategy, all are fully operational and ongoing.
- ***On track:*** All discrete activities intended to be undertaken for this strategy in 2017-2018 are completed. All continuous activities intended to be undertaken for this strategy in 2017-2018 are fully operational.
- ***In development / some activities initiated:*** Of the activities intended to be undertaken for this strategy, some have been initiated or are in development, but not all are yet complete/functioning.
- ***Not started / not applicable to certain sub-regions:*** No activities for this strategy have been initiated or planned for the time period or geography (region/sub-region).
- ***At risk / significantly behind schedule:*** Activities for this strategy are not progressing as planned, are behind schedule, or are projected to be behind schedule based on foreseeable risks.

North Coast Marine Plan strategies often have multiple actions and activities associated with them. Full implementation of many of the North Coast strategies will happen over multiple years and, for this reason, many strategies are considered 'in development' or 'on track', rather than 'complete.'

### ***Outcome 1: Collaboration and Governance – Strengthening the model of collaborative oceans governance.***

Significant progress continues to be made towards achieving objectives for strengthening collaborative oceans governance. Highlights of activities and achievements for the North Coast sub-region under this outcome include:

- Maintenance and improvement of governance structures required for effective management of coastal and marine values, including:
  - A First Nations Technical Marine Planning and Resource Management Table, which enables Nation-to-Nation dialogue and collaboration on marine plan implementation and provides important links back to communities.
  - A Cumulative Effects Technical Team composed of representatives from the B.C. government, NCSFNSS, and participating First Nations who are responsible for



leading implementation of the MaPP Cumulative Effects Framework in the North Coast. Cumulative effects assessment, management and monitoring activities in the North Coast are also enabled through Nation-to-Nation collaboration across related initiatives.

- The Marine Protected Area Network Technical Team which collaboratively advances technical work on the development of a network of marine protected areas for the Northern Shelf Bioregion. North Coast co-leads participate in MPA Technical Team meetings, and are also members of several sub-committees established to advance specific aspects of MPA network planning. NCSFNSS member and partner First Nations contributed to the technical work completed by the MPA Technical Team and sub-committees, to ensure that Aboriginal knowledge, values and resource management practices are integrated in the planning process.
- The North Coast Marine Plan Advisory Committee which was established to receive feedback and advice from members representing a broad range of marine uses, activities and interests.
- Funding was provided to First Nations communities to build additional capacity to respond to referrals through projects such as skills training, and software development/enhancement.

MaPP continues to be successful at building capacity in First Nations communities and providing opportunities for knowledge transfer and collaborative decision-making. Membership on the various committees and technical teams was carefully considered to ensure interests are well represented, and mechanisms have been put in place to achieve accountability, fairness, and transparency. These governance arrangements support more consistent and co-ordinated decision making on delivery of the 2017-18 North Coast work plan.

**Table 1. Implementation status of strategies identified in the 2017-18 work plan related to Collaboration and Governance.**

North Coast Marine Plan strategies 2017-2018	Status of Strategy
<b>Governance Strategy 2.1.</b> Assess needs and identify resources required to ensure enduring governance structures are established and maintained to support implementation of the North Coast marine plan.	<i>On track</i>
<b>Governance Strategy 2.3.</b> Support the development of enduring, inclusive governance arrangements for designing and implementing a marine protected area network.	<i>On track</i>
<b>Governance Strategy 2.6.</b> Establish a collaborative stakeholder advisory process that supports successful implementation of the North Coast marine plan.	<i>Complete/ functioning</i>
<b>Governance Strategy 2.10.</b> Establish and support a First Nations Technical Marine Planning and Resource Management Table.	<i>Complete/ functioning</i>

<b>Governance Strategy 3.5.</b> Develop First Nations capacity for enhanced engagement in the provincial environmental assessment and tenure referrals processes to facilitate collaborative resource management.	<i>On track</i>
<b>First Nations Resource Use and Management Strategy 2.3.</b> Support First Nations capacity for managing and responding to referrals.	<i>On track</i>
<b>Compliance and Enforcement Strategy 2.6.</b> Establish partnerships with BC Parks to ensure adequate patrols of existing and future provincial parks and conservancies.	<i>On track</i>
<b>Cumulative Effects Strategy 1.1.</b> Develop governance arrangements for implementing the MaPP cumulative effects framework.	<i>On track</i>
<b>Cumulative Effects Strategy 2.2.</b> Collaboratively identify types, scope and scale of studies, including geographic and temporal frames.	<i>On track</i>
<b>Cumulative Effects Strategy 2.1</b> Commission a thorough literature review(s) and gap analysis to compile all existing socioeconomic and ecological data that are relevant to cumulative effects assessment	<i>On track</i>
<b>Cumulative Effects Strategy 3.1</b> Commission an expert report on potential effects of proposed development(s) on ecological, social and cultural values	<i>On track</i>
<b>Cumulative Effects Strategy 1.3</b> Establish partnerships with education institutions, non-government organisations, and industry to facilitate cumulative effects research.	<i>On track</i>
<b>Cumulative Effects Strategy 2.3</b> Contract First Nations and local stewardship groups to design and conduct baseline studies to fill data gaps.	<i>On track</i>
<p><b>Status of Strategy is defined as:</b></p> <p><b>On track</b> – All discrete activities intended to be undertaken for this strategy in 2017-18 are completed. All continuous activities intended to be undertaken for this strategy in 2017-18 are fully operational.</p> <p><b>Complete/functioning:</b> Of the discrete activities intended to be undertaken for this strategy, all are completed. Of the continuous activities intended to be undertaken for this strategy, all are fully operational and ongoing.</p>	

**The North Coast Technical Team contributed to the following MaPP regional implementation activities:**

- Participated in the development of a comprehensive *Data and Information Management Strategy* for all data and information generated (and accessed) as a result of implementation of regional actions and sub-regional strategies.
- Supported maintenance of governance structures at the executive, working group, and technical levels to support MaPP implementation. The North Coast Technical Team continued to participate in various sub-committees established to advance priority regional actions including ecosystem-based management (EBM) indicators, cumulative effects, data management, and spatial planning.
- Supported stakeholder and local government engagement on implementation of the Regional Action Framework.

## ***Outcome 2: Marine Zoning – Achieving a healthy marine environment, robust economy and strong communities through zoning.***

Highlights of activities and achievements for the North Coast sub-region under this outcome include:

- **Implementation of the North Coast spatial zones and their recommended uses and activities tables** – North Coast co-leads continue to support provincial and First Nations staff responsible for making recommendations on Crown land applications through the adjudication and referrals process.
- **Participation in the MPA Network planning process** – North Coast co-leads dedicated significant time and effort to this planning process. NCSFNSS worked closely with member and partner First Nations to identify and map cultural conservation priorities (areas important for harvesting, culture and spirituality, culturally significant species) for the MPA Network planning process. Quantitative targets for their spatial representation in the network were also identified for consideration in the design of potential MPA network scenarios. Co-leads assisted with the assembly and validation of ecological and human use data sets, and shared insights and lessons learned during MaPP’s planning phase to analyze and present information.
- **Communications** – The NCSFNSS worked to engage member and partner First Nations in the development of products that support implementation of the North Coast spatial plan, as well as MPA network planning. For example, local and Aboriginal knowledge was key for the development of comprehensive ‘atlas pages’ for each protection management zone. Information is available through reports that can be run using SeaSketch.

***Table 2. Implementation status of strategies identified in the 2017-18 work plan related to Marine Zoning.***

<b>North Coast Marine Plan strategies 2017-2018</b>	<b>Status of Strategy</b>
<b>Marine Response Strategy 1.1.</b> Identify important First Nations cultural values and sites.	<i>On track</i>
<b>Marine Response Strategy 3.1.</b> Assess spill preparedness and response management capacity in the plan area.	<i>In development/ some activities initiated</i>
<b>Marine Protection Strategy 1.3.</b> Collaboratively identify Protection Management Zones that will be advanced for consideration in the Canada-B.C.-First Nations MPA Network planning process.	<i>On track</i>
<b>First Nations Resource Use and Management Strategy 1.3.</b> Develop local-scale marine use plans in areas where important cultural components and First Nations values exist,	<i>In development/ some</i>



as identified in Figure 6 of the North Coast Marine Plan.	<i>activities initiated</i>
<b>Marine Protection Strategy 1.2.</b> Collaboratively develop and implement an evaluation framework to identify Protection Management Zones that would benefit from permanent, legal protection through MPA designation.	<i>On track</i>
<b>Marine Protection Strategy 3.4.</b> Work collaboratively to identify sensitive species and habitats and critical features to support the development of management plans for North Coast spatial zoning.	<i>In development/ some activities initiated</i>
<b>Marine Protection Strategy 1.4.</b> Integrate local and Aboriginal knowledge into MPA planning to improve scientific information and fill data gaps.	<i>On track</i>
<b>Heritage Sites and First Nations Cultural Areas Strategy 2.2.</b> Support the development of site-specific plans for key heritage resources and archaeological sites.	<i>On track</i>
<p><b>Status of Strategy is defined as:</b></p> <p><b>On track</b> – All discrete activities intended to be undertaken for this strategy in 2017-18 are completed. All continuous activities intended to be undertaken for this strategy in 2017-18 are fully operational.</p> <p><b>In development / some activities initiated</b> – Of the activities intended to be undertaken for this strategy, some have been initiated or are in development, but not all are yet complete/functioning.</p>	

### The North Coast Technical Team contributed to the following MaPP regional implementation outcomes:

- Marine response** - In Year 2, MaPP completed a regional strategy for marine incident response planning and preparedness, which has been endorsed by the Marine Working Group as a living document (pending further discussions with the federal government). The strategy outlines regional and sub-regional marine plan commitments to marine response, and establishes key elements of the partners' approach to marine response planning and preparedness. In Year 3, MaPP worked with consultants to develop a "Guide for Preparing Geographic Response Plans [GRPs] and Geographic Response Strategies [GRSs]". The guide is a primer on why, when, where and how to prepare GRPs and GRSs. The recommended approach outlined in both the strategy and the guide is compatible with the 2016 Oceans Protection Plan, offering a collaborative approach inclusive of federal, provincial and First Nations governments and coastal communities.

In January 2018, MaPP hosted a tripartite workshop that brought together First Nations, provincial and federal government representatives to exchange information and to establish a process for conducting community outreach meetings across the MaPP region in support of GRP and GRS development.
- Significant advancements were made in terms of provincial staff training/ outreach. B.C. hosted meetings with regional land officers to discuss MaPP zoning recommendations and consideration of MaPP zones in the review of Crown land applications. Four training

sessions were carried out in regional and district offices. Training was also provided to provincial ministries/divisions to bring attention to the MaPP plans and to identify efficiencies in the delivery of different implementation activities.

***Outcome 3: Stewardship, Monitoring and Enforcement – Enhancing stewardship of ecological and cultural values, and archaeological sites and areas through comprehensive monitoring and enforcement.***

Highlights of key activities and achievements for the North Coast sub-region under this outcome include:

- **Kelp Inventory.** Work is underway to update the inventory of bull and giant kelp biomass in select areas of the North Coast. The provincial government has regulatory authority over commercial harvest of wild aquatic plants. Harvest applications are reviewed annually by provincial and First Nations staff. Sustainable management of this resource requires area- and species-specific information collected regularly to help monitor the impacts of different stressors (e.g., extraction, climate change). Many aquatic plant inventories date back to the 1970s and, given the dynamic nature of the resource, may not accurately reflect current abundance. MaPP will purchase satellite imagery at low tide and peak biomass, and work with the North Coast Technical Team and NCSFNSS member and partner Nations to verify data in the field. These inventory updates will be used to inform the process for referring and making decisions. This activity was scheduled to begin last summer but was delayed to poor weather conditions.
- **Water Quality Monitoring.** The North Coast MaPP technical team has engaged a contractor to develop a water quality monitoring strategy for the North Coast. The contractor is working with the North Coast Technical Team and NCSFNSS member and partner Nations to create a strategy for on-going water quality monitoring in the North Coast sub-region to support ecosystem-based monitoring, cumulative effects, and climate change objectives and strategies. The strategy includes a summary of existing monitoring programs in the North Coast, recommendations for establishing a comprehensive water quality monitoring program, and estimates for implementing the recommendations under various scenarios.
- **First Nations Educational Programs for Youth.** Throughout the last year, MaPP funding was made available to help support local programs designed by First Nations to empower youth and strengthen their connections to the natural world. For example, Kitsumkalum First Nation accessed MaPP funding to support the Na Aksa Gyilak'yoo School Youth Cultural Revitalization Program. The project seeks to strengthen the identity of K-12 First Nations students and their connections to their territory, both land and waterways, through

traditional subsistence activities in Sm'algayax (Tsimshian language). Mini-projects included salmon fishing in the Skeena River, preserving salmon in the smokehouse, cockle harvesting on the beach, Nass River fishing for oolichan on the ice, rendering oolichan grease, and seaweed harvesting. Gitga'at used the funds to acquire the materials for a new youth cabin for their seasonal harvest camp in K'yel. At this remarkable place, a large portion of the Gitga'at community resides at the camp to engage in harvesting, processing and sharing of numerous marine resources including seaweed, halibut and intertidal species throughout most of May and June. The cabin will allow more students from Hartley Bay School to participate in those activities and acquire a wealth of cultural knowledge from their Elders and other harvesters. As another example, Gitxaala contributed to the enhancement of Kwusen Research & Media's Community Knowledge Keeper (CKK) referrals management and traditional knowledge database software. The new "Printable Maps" feature in the CKK provides users with the ability to produce sharable and printable maps from their tenure assessments in the software. These printable maps support both internal analysis and communications with tenure applicants and governance partners. In Year 4, MaPP funding will be available to each Nation for the development and delivery of programs suited to their unique priorities and needs for engaging youth.

- MaPP funding was made available to communities to support communications materials development (e.g., signs, pamphlets, website updates) that inform marine users and the general public about First Nations resource management practices as they pertain to marine areas and activities. For example, Kitselas First Nations accessed MaPP funding to support the development of an interactive community map that will inform users about Kitselas resource management practices.
- **Cultural Site Planning.** This activity has evolved from the development of area specific management plans, to the North Coast team focusing efforts on the creation of a template for heritage and cultural site management plan development. The template will guide preparation of management plans intended to provide direction for such things as access, uses and activities, restoration work, monitoring, and outreach.

**Table 3. Implementation status of strategies in the 2017-18 work plan related to Stewardship, Monitoring and Enforcement.**

North Coast Marine Plan strategies 2017-2018	Status of Strategy
<b>Heritage Sites and First Nations Cultural Areas Strategy 2.1.</b> Develop guidelines for human activities within sensitive cultural and archaeological sites that may inform management direction and establish regulations to reduce negative impacts.	<i>In development/ some activities initiated</i>



<b>Heritage Sites and First Nations Cultural Areas Strategy 5.2.</b> Support and facilitate the development of First Nations research policies to direct and manage research in their territories.	<i>In development/ some activities initiated</i>
<b>Monitoring Strategy 2.1.</b> Support the expansion of First Nations stewardship and resource management programs to enhance capacity for field monitoring and data collection.	<i>On track</i>
<b>Compliance and Enforcement Strategy 3.2.</b> Develop communications materials that inform marine users and the general public about Aboriginal rights and title, and Indigenous laws and resource management practices as they pertain to marine areas and activities.	<i>On track</i>
<b>Tourism and Recreation Strategy 1.5.</b> Develop and implement outreach and interpretive programs to improve awareness of local cultures and traditions, including First Nations interpretive signage throughout their territories.	<i>On track</i>
<b>Compliance and Enforcement Strategy 2.3.</b> Jointly review and, where appropriate, establish formal agreements between First Nations and applicable provincial agencies that greater enable First Nations involvement in compliance and enforcement activities.	<i>In development/ some activities initiated</i>
<b>Governance Strategy 1.6.</b> Support efforts to expand the role of First Nations in monitoring and enforcement activities.	<i>On track</i>
<b>Marine Protection Strategy 3.1.</b> Support and facilitate ongoing efforts to identify, map, assess and restore quality of habitats in the North Coast plan area.	<i>In development/ some activities initiated</i>
<b>Tourism and Recreation Strategy 1.3.</b> Work with stakeholder groups to identify appropriate marine access campsite locations.	<i>In development/ some activities initiated</i>
<p><b>Status of Strategy is defined as:</b></p> <p><b>On track</b> – All discrete activities intended to be undertaken for this strategy in 2017-18 are completed. All continuous activities intended to be undertaken for this strategy in 2017-18 are fully operational.</p> <p><b>In development / some activities initiated</b> – Of the activities intended to be undertaken for this strategy, some have been initiated or are in development, but not all are yet complete/functioning.</p>	

### The North Coast Technical Team contributed to the following MaPP regional implementation outcomes:

- **EBM monitoring** - Selecting and monitoring EBM indicators of ecosystem health and human well-being are an important part of MaPP implementation. Contributions in 2017-2018 include recommendations for addressing data insufficiencies and monitoring gaps related to a sub-set of pilot indicators. Data reports were developed for salmon, eelgrass, sea surface temperature, sea surface salinity, and water quality. Next steps include further scoping of other pilot regional indicators and exploring an integrated regional program to support cumulative effects and climate change monitoring needs.
- **Cumulative Effects** – MaPP completed a contract to refine the preliminary *MaPP Cumulative Effects Framework (MaPP CEF)* through a review of cumulative effects best practices and initiatives to date (local to international) and engagement with the MaPP

partners. Resulting deliverables are a refined 'evergreen' MaPP CEF and a set of recommendations for next steps towards implementation of the framework, both of which have received technical approval from the partners. Implementation discussions have started within the cumulative effects sub-committee. The draft framework was presented to members of the Regional Marine Advisory Committee (as well as the North Coast Marine Plan Advisory Committee) for feedback.

***Outcome 4: Sustainable Economic Development and Healthy Communities – Fostering a new ecosystem-based marine economy for improved community and human well-being.***

The North Coast Technical Team contributed to the following MaPP regional implementation outcome:

- **Marine infrastructure inventory.** The Regional Action Framework includes an action for confirming gaps in marine infrastructure and services (Action 3.3a). A scope of work was developed for identifying gaps in the region's 'marine highway' infrastructure, however, further action has been put on hold pending further exploration internally and externally with stakeholders. The project will move forward in 2018-19 (Year 4).

***Outcome 5: Climate Change and Adaptive Management – Undertaking studies and plans to better address the effects of climate change in the MaPP region.***

The North Coast Technical Team contributed to the following MaPP regional implementation outcomes:

- North Coast co-leads reviewed the proposals and projects that were written in collaboration with the University of Victoria. Completed reports were shared with the North Coast stakeholders. Two climate change reports were developed:
  - **Report 1** is a tool to help guide future research and climate change adaptations in the region. It outlines the current available knowledge on climate change projections with associated impacts, exposure, and risks to the coastal social-ecological system of the MaPP region. This report focuses on climate-associated impacts, exposure, and risks to four key sectors of the coastal social-ecological system: ecosystems; fisheries and aquaculture; human communities; and marine infrastructure. This report includes North Coast-specific summary tables for climate impacts, projected changes and sectoral impacts.
  - **Report 2** is an evaluation of specific tools for assessing climate change vulnerability and risk within the MaPP region and sub-regions.

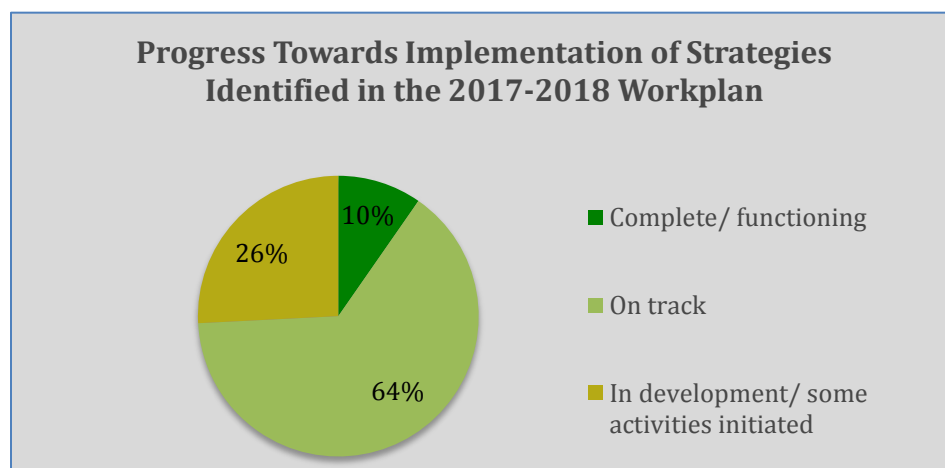
**Table 4. Implementation status of strategies identified in the 2017-18 work plan related to Climate Change and Adaptive Management**

North Coast Marine Plan strategies 2017-2018	Status of Strategy
<b>Climate Change Strategy 1.1.</b> Conduct a climate change vulnerability assessment for North Coast marine ecosystems.	<i>Complete/ functioning</i>
<b>Status of Strategy is defined as:</b>  <b>Complete/functioning:</b> Of the discrete activities intended to be undertaken for this strategy, all are completed. Of the continuous activities intended to be undertaken for this strategy, all are fully operational and ongoing.	

### 3. SUMMARY OF PROGRESS

The following graphics illustrate the implementation status of the 2017-2018 work plan strategies. Please note that not all scoring categories were assigned for North Coast 2017-2018 reporting. Refer to Section 2 for a description of the scoring categories.

Figure 1 displays the progress towards implementation of the strategies identified in the 2017-2018 work plan. It shows the percentage of all 2017-2018 strategies by scorecard category. For example, more than half of strategies in the 2017-2018 work plan are considered ‘on track.’



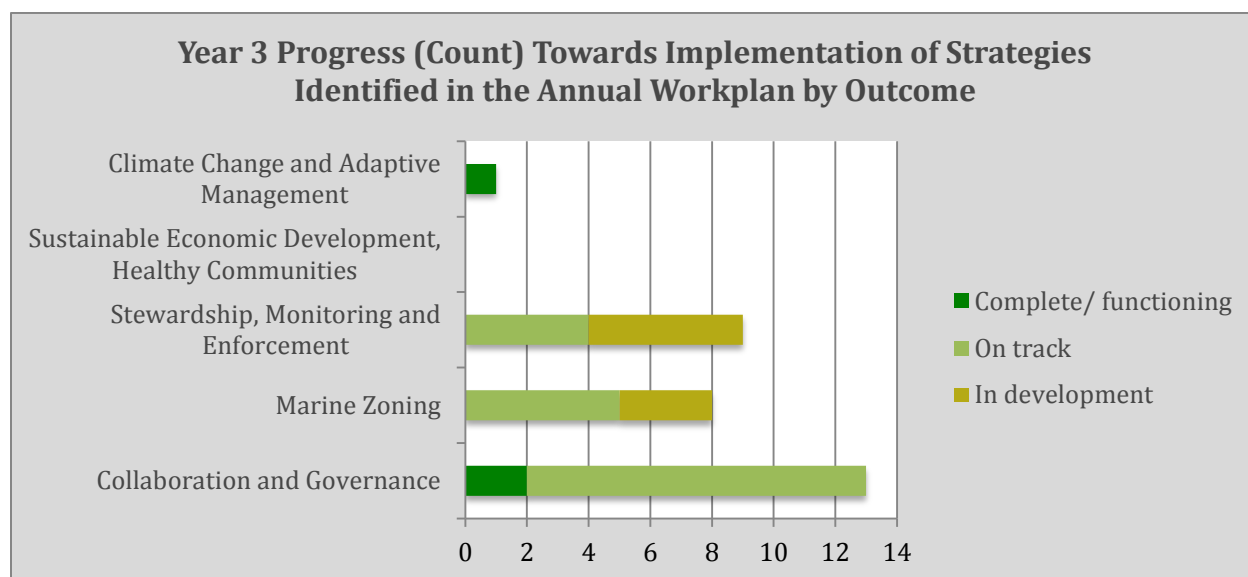
**Figure 1. Strategy implementation by scorecard category.**

Strengthened collaboration and governance is recognized by the partners as key to addressing the challenges and opportunities that lie ahead. In 2017-2018, the North Coast Technical Team maintained and strengthened the structures required to implement many aspects of the North Coast Marine Plan. Strategies related to the outcome ‘stewardship, monitoring and enforcement’ were also an area of focus for implementation, particularly those associated with assessment, management and monitoring of cumulative effects. Partners are working to



strengthen the communication and co-ordination between cumulative effects initiatives to ensure that limited resources are efficiently applied. This includes establishing governance structures and engaging relevant government and non-government agencies and partners. Cumulative effects will continue to be a priority for the North Coast.

Figure 2 shows the significant effort dedicated to improving collaboration and governance, stewardship, monitoring and enforcement, and marine zoning. It shows the status of all strategies identified in the 2017-2018 work plan for each MaPP strategic outcome. For example most strategies under the collaboration and governance outcome are on considered 'on track'.



**Figure 2. Strategy progress (counts) by MaPP strategic outcome**



Photo Credit: Allison Paul

## 4. LOOKING AHEAD

Most North Coast Marine Plan strategies will be implemented over multiple years and some of the implementation activities that the North Coast partners intended to begin in 2017-2018 were postponed or only partially implemented. In some cases, timelines were realigned to allow for greater co-ordination with sub-regions or regional activities, and in some cases priorities were revisited because of restraints on capacity to implement the full work plan.

To ensure we are better positioned to deliver on key outcomes, we will aim to set realistic timelines and deliverables, seek more opportunities for partnership and collaboration, and engage consultants, when appropriate.

### ***Looking ahead to 2018-2019***

Priorities for implementation are guided by the North Coast Marine Plan Vision Statement:

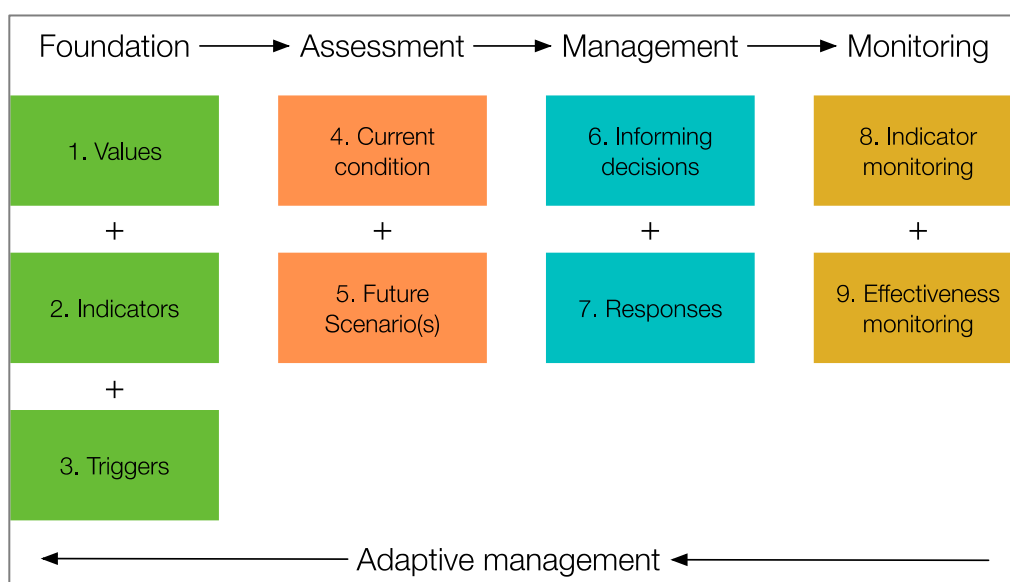
*“The ecological and cultural richness of the North Coast region is maintained and enhanced. The diverse territories and productive marine resources support healthy and prosperous communities for the benefit of current and future generations. Governance structures are collaborative, co-operative and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

Looking ahead to 2018-2019, work will focus on transforming governance arrangements for implementing the marine plan (e.g., MaPP, First Nations Technical Marine Planning and

Resource Management Table, MPA Technical Team) to enable direct participation by Nations who are advancing models for self-representation.

Cumulative effects will continue to be a priority for implementation. Emerging governance structures will enable the parties to improve co-ordination across multiple initiatives aimed at monitoring, assessing and managing cumulative effects in the North Coast.

Work will continue on implementing the MaPP Cumulative Effects Framework in the North Coast. Technical representatives from North Coast First Nations and the provincial government collaboratively developed a cumulative effects work plan to guide Year 4 implementation activities focused on advancing elements of the draft MaPP Cumulative Effects Framework (CEF). There are nine components of the framework organized into four phases (see Figure 3):



**Figure 3. Cumulative effects components and phases.**

Four initial values were selected from an initial suite of 33 identified by North Coast First Nations to build out as per the different components of the MaPP CEF: aquatic habitats (Skeena Estuary), access to resources, salmon, and food security. For these values, work planned for Year 4 is summarized in the table below. This work is being advanced with close collaboration between the Environmental Stewardship Initiative<sup>3</sup> (ESI) and MaPP with the focus of work in year 4 work as illustrated in Figure 4.

<sup>3</sup> <https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/environmental-stewardship-initiative>



MaPP Yr 4 implementation Focus	Foundation	Assessment	Management	Monitoring
Aquatic Habitat (Skeena Estuary)	ESI focus	ESI focus	MaPP focus	ESI/MaPP
Access to Resources	ESI focus	ESI focus	MaPP focus	ESI/MaPP
Salmon	ESI focus	ESI focus	MaPP focus	MaPP/ESI
Food Security	MaPP focus	MaPP focus	MaPP focus	MaPP/ESI

**Figure 4. Focus for MaPP year 4 cumulative effects work.**

*\*Dark text indicates a primary area of focus for fiscal year 2018-19 (Year 4 of MaPP implementation) and greyed text indicate a secondary area of focus.*

Other activities planned for Year 4 include:

- Implementation of the water quality monitoring strategy. The water quality strategy focuses on two primary objectives: 1) to establish baseline conditions for water quality as it relates to ecosystem health of marine species and habitats in the North Coast sub-region and oceanography and climate change, and 2) to develop an ongoing monitoring program that will enable the assessment of future conditions, including monitoring of cumulative effects. Specific indicators to be monitored include the physical and chemical parameters of the water column such as, but not limited to, sea surface temperature, salinity, turbidity, nutrients and contaminants.
- Management planning for Protection Management Zones and cultural and heritage areas, with management plans being developed for prioritized areas.
- Support for First Nations community and youth programs to develop and deliver cultural educational programs.
- Bull and giant kelp biomass estimates in select areas of the North Coast through satellite imagery collection and field work (weather permitting).
- Participation in the Marine Protected Area (MPA) Network Planning Process through MPA Technical Team meetings and sub-committees established to advance specific aspects of MPA network planning. Nation-level engagement in the MPA network planning process will continue to ensure that Aboriginal knowledge, values and resource management practices are integrated. North Coast Technical leads will work with Canada to engage stakeholders, local governments, and non-Aboriginal communities in the network planning process.

We will continue to build relationships with other agencies, organizations and institutions throughout the region that share an interest in collaborative management of marine resources, and we will continue to engage local governments and stakeholders in our efforts to achieve a collective vision for the North Coast.

# WHERE TO GO FOR MORE INFORMATION

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

Marine Plan Partnership for the North Pacific Coast | MaPP is a partnership between the Government of B.C. and First Nations.

