

Cite as: Marine Plan Partnership for the North Pacific Coast – Central Coast Annual Report 2019. Copyright © 2019

Cover Photo Credit: Janie Wray, CetaceaLab

Seaweed Motif: Simon Davies - Jones, Davies & Davies Layout and Design: Gary Leung – www.garyleungonline.com









MARINE PLAN PARTNERSHIP FOR THE NORTH PACIFIC COAST

# CENTRAL COAST ANNUAL REPORT

2018-19





### **TABLE OF CONTENTS**

Message from the Implementation Team	Z
Acknowledgments	5
Implementation Progress Overview	5
Implementation Progress Details	6
Looking ahead	19
Graphics and Figures	19





#### MESSAGE FROM THE IMPLEMENTATION TEAM

The Central Coast Marine Plan outlined a vision, objectives and strategies for the stewardship and management of the Central Coast's coastal and marine areas, and provided guidance and recommendations for First Nations and provincial agencies in their evaluation of coastal and marine-based activities and uses.

The Province of B.C. and the Heiltsuk, Kitasoo/Xai'Xais, Nuxalk and Wuikinuxv Nations ("the Central Coast partners") are working to implement the recommendations in the Central Coast Marine Plan, with input from communities, stakeholders, local governments, and the broader public.

The Central Coast Implementation Technical Team is pleased to present the 2018-19 annual report. This report reflects implementation progress made between April 1, 2018 and March 31, 2019. 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 Central Coast Marine Plan.

Sincerely,

Aaron Heidt and Gord McGee (Co-Leads, Central Coast Indigenous Resource Alliance)
Sally Cargill (Co-Lead, Province of B.C.)



#### **ACKNOWLEDGMENTS**

The Central Coast Implementation Technical Team would like to acknowledge and thank all the representatives of the Heiltsuk, Kitasoo/Xai'Xais, Nuxalk, and Wuikinuxv Nations, the Province of B.C., the sector representatives who make up the Central Coast Marine Plan Implementation Advisory Committee and many other contributing organizations and individuals for the time and energy that they have put into implementing the Central Coast Marine Plan. The plan itself represents the culmination of several years of dedicated work by many of these same representatives. We thank all those representatives that have continued to remain involved through implementation, as well as those that have recently become involved.

We also wish to acknowledge the ongoing financial support for MaPP implementation from funders to the Great Bear Sea Fund at Tides Canada Foundation.

#### IMPLEMENTATION PROGRESS OVERVIEW

Implementation priorities for the Central Coast Marine Plan were identified during the planning phase and were further scoped through implementation work planning and budgeting. Implementation activities related to governance and stewardship have been a priority throughout the implementation phase. In 2018-19 we built upon foundational work of prior years to advance priority implementation activities under these same themes.

As anticipated, scenario planning for the Marine Protected Area (MPA) network was a significant focus for the MaPP partners in 2018-19. The MaPP partners and the federal government reached technical agreement on the draft MPA network for the Northern Shelf Bioregion. Components of the draft MPA network scenario within the Central Coast closely reflect the Protection Management Zones (PMZ) identified through MaPP.

Guardian Watchmen continued to improve their proficiency in monitoring, data collection and survey methodology; collect data on ecosystem-based management (EBM) indicators; welcome and educate visitors in the territory; support marine response; and promote compliance through education and presence.

Operational staff from BC Parks, FLNRO Natural Resource Officers, and Guardian Watchmen were brought together for joint training and communication workshops to improve relationships amongst staff and create a more collaborative approach to monitoring on the Central Coast.

Data gathered through the Central Coast EBM Indicator monitoring program was analyzed and the Central Coast partners are thinking about how information will be shared, link in with management decisions, and inform further development of the EBM indicator monitoring program.



The Plan has been informing tenuring decisions for four years. Reviews of tenure authorizations have shown a high level of consistency between tenuring decisions and recommendations in the Central Coast Marine Plan. Consistency between Plan recommendations and tenuring decisions will continue to be tracked for 2019-20 to help inform plan implementation. The MaPP partners expect to report out on this and other plan performance measures over time.

#### **IMPLEMENTATION PROGRESS DETAILS**



This section highlights key achievements related to implementation of the Central Coast Marine Plan in 2018-19, organized by associated MaPP strategic outcomes.

Each strategic outcome section also includes a table that lists all the related priority strategies that the Central Coast partners worked on in 2018-19. For each strategy, a scorecard is provided that shows the implementation status of the strategy and key upcoming actions in 2018-19. Full implementation of many of the strategies will take several years.

Implementation status is defined as:

**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 2018-19 are completed. All continuous activities intended to be undertaken for this strategy in 2018-19 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** – No activities for this strategy were initiated in 2018-19.



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

In 2018-19, the Central Coast partners maintained and strengthened the structures required to implement the Central Coast marine plan. Key achievements included:

- Scenario planning for the MPA network: The Central Coast partners participated in Marine Protected Area Technical Team (MPATT) meetings, sat on sub-committees established to advance specific aspects of MPA network planning; conducted Nation-level community engagement; and sought advice from the MPA stakeholder advisory committee members via in-person meetings, webinars and bilateral meetings. The governance partners have reached technical agreement on a draft MPA network. Stakeholders are in the process of reviewing the draft Network with their sectors and will be providing feedback and advice in the coming months.
- Establishing a collaborative governance structure for restoration decision-making for Namu:
   During initial work to restore Namu to a safe, clean and sanitary condition in 2017-18, the
   Central Coast partners realized that there was a need to establish clear governance
   structures that restoration decision-making could occur within. In 2018-19 the Central Coast
   partners established this governance structure, confirmed membership, and developed a
   draft work plan. This collaborative governance structure for Namu is being viewed by the
   Central Coast partners as a pilot for other complex remediation projects.
- Developing a draft information sharing and data use agreement: When finalized, this will govern the sharing of EBM indicator and Tenure Activity Monitoring information outputs and data that is collected by Guardian Watchmen and housed by CCIRA.





Table 1. Implementation status of strategies identified in the 2018-19 work plan related to Collaboration and Governance.

Central Coast Marine Plan Strategy	Implementation Status as of March 31, 2019	Key upcoming actions in 2019-20
Governance 2.2: Actively engage in a governance structure that includes relevant Crown agencies and First Nations, for the development and implementation of a Marine Protected Area Network for the Northern Shelf Bioregion.	Complete/ functioning	Finalize the draft MPA Network and advance it through the approval process. Participate in Marine Protected Area Technical Team and stakeholder engagement events.
<b>Governance 2.3</b> : Seek required resources identified for the implementation of the Central Coast Marine Plan, including those required for governance structures.	Complete/ functioning	Determine if any amendments to the Central Coast Marine Plan are required. Determine the governance structure and focus of Central Coast Marine Plan implementation for 2020-21 and beyond.
<b>Governance 2.4</b> : Establish a stakeholder advisory process that supports the successful implementation of the Central Coast Marine Plan.	Complete/ functioning	Support stakeholder engagement through the Marine Plan Implementation Advisory Committee.
<b>Governance 3.1</b> Encourage the development of protocols and agreements between First Nations and local governments.	Not started	No activities planned for 2019-20.
Governance 3.2 Review and increase the effectiveness of existing protocols and agreements between First Nations and local governments.	In development/ some activities initiated	No activities planned for 2019-20.
<b>Tenured Activities 1.2</b> : Develop provincial guidelines which support the development of protocols between First Nations and tenure proponents.	In development/ some activities initiated	Finalize a guidance document for development of protocol agreements between commercial operators (including tourism operators and recreational fishing service providers) and Central Coast Nations.



Central Coast Marine Plan Strategy	Implementation Status as of March 31, 2019	Key upcoming actions in 2019-20
<b>Traditional, Cultural and Heritage Resources 3.3</b> : Ensure protocols developed between tourism proponents and First Nations include guidelines for human activities around cultural sites and areas, including the use of First Nations monitors and guides, where appropriate.	On track	Finalize a guidance document for development of protocol agreements between commercial operators (including tourism operators and recreational fishing service providers) and Central Coast Nations.
Marine Fisheries Economy 7.1: Facilitate development and implementation of protocol agreements between First Nations and recreational fishery service providers, where appropriate.	On track	Finalize a guidance document for development of protocol agreements between commercial operators (including tourism operators and recreational fishing service providers) and Central Coast Nations.

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

In 2018-19, the Central Coast partners focused on strategic aspects of advancing zoning in the Central Coast sub-region. Key achievements included:

- Identifying opportunities for PMZ to inform MPA network design, including developing Area
  Profiles for each zone and translating MaPP Recommended Uses and Activities tables into
  MPATT "management matrix" activity tables. The significant amount of work undertaken
  during the MaPP marine planning process (including assembling and analyzing baseline
  data, and the spatial identification of social, cultural, economic and ecological values in the
  Central Coast) was drawn upon for this work.
- Continuing to work on PMZ management planning. Areas of focus included harmonizing PMZ management plans with conservancy management plans, and understanding forestry, recreational, commercial tourism and vessel impacts in PMZ to inform management planning.
- Taking steps to address the gap in spatial zoning and management recommendations
  related to wild marine aquatic plant harvest in the MaPP plans and committing to
  identifying and advancing resolution of high-level governance and policy issues related to
  management of marine aquatic plant harvest.



Table 2. Implementation status of strategies identified in the 2018-19 work plan related to Marine Zoning.

Central Coast Marine Plan Strategy	Implementation Status as of March 31, 2019	Key upcoming actions in 2019-20
Tenured Activities 3.3: Conduct detailed planning in:  Burke Channel (Burke/Fisher)  Northern end of South Bentinck (Dean/Bentinck)  Southern end of South Bentinck (Asseek)  Kimsquit Bay  Fog Creek/ Green River	In development/ some activities initiated	Continue to explore options for zoning Areas that Require More Detailed Planning.
<b>Traditional, Cultural and Heritage Resources 1.1</b> : Incorporate the protection of sensitive cultural and archaeological sites into the management of PMZs.	On track	Monitor priority cultural sites through the Guardian Watchmen program. Post Guardian Watchmen in high-priority areas during the busiest part of the tourism season.
Marine Protection 1.1: Work with relevant crown agencies and First Nations to collaboratively discuss, identify and advance possible areas for inclusion in MPA Network for the Northern Shelf Bioregion	On track	Continue to engage in MPATT and continue to identify opportunities for PMZ to inform MPA network design.
Marine Protection 1.3: Develop management tools and protection measures for collaboratively managing Protection Management Zones.	In development/ some activities initiated	Develop strategic approach for populating PMZ management plans.
Marine Fisheries Economy 1.1: Work with relevant Crown agencies and First Nations to assess the need, and where appropriate, develop a siting policy for marine-based sport fishing lodges that incorporates traditional and local knowledge and values and considers cumulative effects.		No activities planned for 2019-20.



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

As in previous years, stewardship, monitoring and enforcement were a significant focus in 2018-19, with support for the Guardian Watchmen program as one of the main implementation activities in the Central Coast sub-region. In 2018-19, there was a high number of returning Guardian Watchmen, which mean that rigorous training for established indicators was not required to the same degree as past years, freeing up time for both CCIRA science staff and the Guardian Watchmen themselves to conduct field work and training on methodologies for new EBM indicators. Key achievements under the stewardship, monitoring and enforcement outcome area included:

- All Guardian Watchmen achieving Stewardship Technician Training, with some having completed the third level.
- Conducting field work and training Guardian Watchmen on methodologies for new EBM indicators (such as seagrass and kelp); gathering data on Dungeness crab, vessel traffic, invasive species, estuary health and groundfish; and conducting cultural site monitoring, and spill and pollution monitoring.
- Bringing operational staff from BC Parks, FLNRO Natural Resource Officers and Guardian
  Watchmen together for joint training and communication workshops to improve
  relationships amongst staff and create a more collaborative approach to monitoring on the
  Central Coast.
- Hiring a data analyst and beginning to report out on data gathered through the Central Coast EBM Indicator monitoring program that will inform adaptive management and evaluation of progress towards meeting Central Coast plan goals.
- Completing a communications strategy designed to raise awareness and understanding among local communities and tourists about First Nations title and rights, cultural areas and sites, and cultural beliefs and values with respect to marine resources.
- Working with the federal government to develop a Regional Response Plan in the Central Coast. Nation-level community engagement occurred in the summer and identified areas of concern which is an initial step in the creation of Geographic Response Strategies.



Table 3. Implementation status of strategies in the 2018-19 work plan related to Stewardship, Monitoring and Enforcement.

Central Coast Marine Plan Strategy	Implementation Status as of March 31, 2019	Key upcoming actions in 2019-20
Monitoring and Enforcement 2.1: Establish a collaborative regional monitoring network among appropriate compliance agencies, including First Nations, that seeks to increase respect for the authority of First Nations' compliance and monitoring staff.	In development/ some activities initiated	Coordinate MaPP Guardian Watchmen participation in collaborative monitoring discussions and provide other support as requested.
Monitoring & Enforcement 2.2: Improve understanding and communication between relevant compliance and enforcement agencies.	On track	Bring together operational staff from First Nation, provincial, and federal monitoring and enforcement programs for a pre- and post-season collaboration and communication workshop.
Monitoring & Enforcement 2.3: Coordinate training for marine monitoring programs with other relevant enforcement agencies to establish a collaborative approach to compliance monitoring and reporting out to relevant enforcement agencies.	On track	Bring together operational staff from First Nation and provincial monitoring and enforcement programs for joint training activities.
Monitoring & Enforcement 2.4: Establish Memorandums of Understanding between First Nations and relevant Crown agencies to clarify monitoring and enforcement authority roles and responsibilities.	In development/ some activities initiated	Coordinate MaPP Guardian Watchmen participation in collaborative monitoring discussions and provide other support as requested.
Monitoring & Enforcement 2.5: Establish a communications strategy that ensures the effective flow of information and timely action on monitoring and enforcement issues.	In development/ some activities initiated	Bring together operational staff from First Nation, provincial, and federal monitoring and enforcement programs for a pre- and post-season collaboration and communication workshop.
Monitoring & Enforcement 2.6: Develop a monitoring and assessment needs report for current and future requirements, including resources, across all agencies.	On track	Complete monitoring needs assessment (initiated in Dec 2018) and determine which agencies/ programs may require additional resources.
Monitoring and Enforcement 2.7: Seek long- term funding for appropriate levels of monitoring and enforcement, with particular attention to monitoring and enforcement within Protection Management Zones.	Not started	Begin development of a long-term funding strategy that can meet the needs in the Central Coast.



Central Coast Marine Plan Strategy	Implementation Status as of March	Key upcoming actions in 2019-20
	31, 2019	
Monitoring & Enforcement 2.8: Build capacity	On track	Continue to build Guardian Watchmen
for appropriate levels of monitoring and		capacity through implementation of the
enforcement with particular attention to		EBM indicator monitoring program and
monitoring and enforcement within MPAs.		joint training/ collaboration workshops.
Monitoring & Enforcement 3.3: Provide First	On track	Continue to support capacity building in
Nations and relevant local residents with		First Nations communities through skills
training on collecting data related to EBM		training and investments in equipment
indicators in order to improve monitoring		and fuel.
participation.		
Monitoring & Enforcement 3.5: Prioritize	Complete/	Continue to identify and consider
marine species and habitats that require	functioning	species and habitats that require
targeted monitoring, including invasive species.		targeted monitoring through both the
		sub-regional and regional EBM indicator
		monitoring programs.
Monitoring & Enforcement 3.6: Measure long-	Complete/	Continue implementation of EBM
term changes in ecological integrity and human	functioning	indicator monitoring program –
wellbeing using the Central Coast sub-regional		including analyzing and reporting out on
EBM indicators identified during		data collected.
implementation of the Central Coast Marine		
Plan.		
Tenured Activities 2.1: Assess provincial	In development/	Develop inventory of log handling and
tenures in the Plan Area, and review their	some activities	storage tenures for the Central Coast
current level of activity. Where appropriate,	initiated	Plan Area.
work with relevant agencies to reduce the		
number of inactive or under-utilised tenures.		
Tenured Activities 11.1: Work with relevant	In development/	Work with the Nations' forestry experts,
agencies to continue engaging industry in	some activities	MPIAC members and provincial agencies
improving/developing Best Management	initiated	to understand potential mitigative/
Practices that also incorporate First Nations		preventative measures and identify
values, concerns and interests for logging-		ways to better incorporate First Nations
related activities that affect marine areas.		values, concerns and interests related to
		marine forestry operations. Bring
		learnings from this work into the
		strategic approach for PMZ
		management planning.
Tenured Activities 11.2: Work with relevant	On track	Work to support joint compliance
agencies to ensure compliance with Best		monitoring by Guardian Watchmen and
Management Practices for logging-related		Natural Resource Officers.
activities		



Central Coast Marine Plan Strategy	Implementation Status as of March 31, 2019	Key upcoming actions in 2019-20
<b>Tenured Activities Forestry 11.3</b> : Monitor floating camps, barges and land-based facilities for potential marine ecological impacts.	On track	Continue to incorporate monitoring of forestry floating camps, barges and landbased facilities into regular Coastal Guardian Watchmen patrols.
Tenured Activities 11.4: Work with relevant agencies to provide training opportunities to increase First Nations involvement in monitoring and enforcement of industry compliance with logging Best Management Practices.	In development/ some activities initiated	Work to support joint compliance monitoring by Guardian Watchmen and Natural Resource Officers.
Traditional and Cultural Resources 2.1:  Develop outreach and education programs that inform local communities and tourists about First Nations title and rights, cultural areas and sites, cultural beliefs and values with respect to Marine Resources.	On track	Guided by the communications Strategy completed in 2018-19, identify key outreach/ education materials that should be developed.
Traditional, Cultural and Heritage Resources 3.2: Develop guidelines that teach potential visitors about basic etiquette while visiting cultural and archaeological sites.	On track	Guided by the communications Strategy completed in 2018-19, identify key outreach/education materials that should be developed.
Pollution 1.1: Work with relevant Crown agencies and First Nations to contribute to the ongoing review, assessment and, where applicable, amendment and implementation of marine pollution policies and laws, focusing on international best management practices.	In development/ some activities initiated	Begin exploring the technical feasibility of installing a pump-out station in Bella Bella.
<b>Pollution 2.1</b> : Identify sites for marine habitat restoration, including but not limited to: log sorts, heli-drop sites, booming areas, derelict vessels, abandoned sites, derelict fishing gear.	In development/ some activities initiated	Continue recording tenure sites with abandoned gear or other concerns.
Pollution 2.2: Develop, implement and prioritize restoration plans, as appropriate.	In development/ some activities initiated	Undertake priority restoration projects at Namu, as directed by the collaborative governance structure for Namu.
Pollution 3.1: Work with First Nations and relevant Crown agencies to review and implement international best management practices for marine accidents and spill clean up.	On track	Support implementation of the MaPP Marine Response Strategy and other regional marine response work.



Central Coast Marine Plan Strategy	Implementation Status as of March 31, 2019	Key upcoming actions in 2019-20
Pollution 3.2: Develop information-sharing	On track	Continue working to advance the
protocols that ensure the efficient flow of		Regional Response Plan with Transport
information and data among all levels of		Canada.
government.		
Pollution 3.5: Ensure that sufficient response	In development/	Develop Geographic Response Strategies
capability is in place before marine activities	some activities	that outline field responses in the event
are approved.	initiated	of a marine incident at specific sites.
Pollution 4.1: Research and compile effective	In development/	Support implementation of the MaPP
components of successfully implemented	some activities	Marine Response Strategy and other
marine response plans in other geographic	initiated	regional marine response work.
regions.		
Pollution 4.2: Work with relevant Crown	On track	Confirm attribute tables for Areas of
agencies and First Nations to gather and		Concern and prioritize them. Complete
analyze all relevant information and data to		detailed shoreline mapping.
populate marine response plans.		
Climate Change Adaptation and Mitigation	On track	Support implementation of regional
1.1: Review regional climate change indicators		EBM indicator and climate change
and select those that are relevant to the		monitoring program.
Central Coast Plan Area.		
Climate Change Adaptation and Mitigation	On track	Continue the multi-year collaboration
<b>2.1</b> : Determine which climate change indicators		with the Conservation Land
can be monitored through partnerships with		Management Program. Continue
local organizations and individuals, such as the		working with the Hakai Institute to find
Coastal Guardian Watchmen and citizen		opportunities to collaborate in
science groups.		monitoring efforts for kelp, seagrass and
		oceanographic indicators.
Climate Change Adaptation & Mitigation 3.1:	On track	Continue to identify and consider
Identify marine habitats and species with		habitats and species that require
critical ecosystem functions and roles.		targeted monitoring through both the
		sub-regional and regional EBM indicator
		monitoring programs
Marine Fisheries Economy 4.2: Identify gaps in	On track	Continue recording tenure sites with
enhancement and restoration activities based		abandoned gear or other concerns.
on ecological, social and economic need.		Pursue restoration of priority areas as
		funding opportunities arise.
Marine Fisheries Economy 4.4: Seek additional	Not started	Explore restoration or enhancement
funding to fill gaps in enhancement and		projects as opportunities arise for
restoration activities identified in Strategy 4.2.		funding.



Central Coast Marine Plan Strategy	Implementation Status as of March 31, 2019	Key upcoming actions in 2019-20
Marine Fisheries Economy 5.1: Explore opportunities for First Nations and local community investment, partnership and participation in seafood processing and other value-added activities.	On track	Coordinate with Central Coast Commercial Fisheries Association on their work to assess licence access, business planning, funding for processing and licence acquisition and building capacity to participate in commercial fisheries.
Marine Fisheries Economy 6.4: Identify new and expandable export markets for Central Coast seafood products	Not started	Coordinate with Central Coast Commercial Fisheries Association on their work to assess licence access, business planning, funding for processing and licence acquisition and building capacity to participate in commercial fisheries.





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

The Central Coast partners initiated work required to establish a successful shellfish aquaculture industry on the Central Coast. Programs that teach First Nations youth about traditional management and harvesting practices were supported. Key achievements included:

- Initiating a partnership with North Island College (NIC) to monitor and evaluate geoduck
  pilot sites. Work in spring/ summer 2018 focused on selecting sites, conducting site visits
  and determining permitting requirements. Data loggers were deployed at three locations in
  the Central Coast during the summer, and measured temperature, conductivity and density
  for a short period of time.
- Through spring/summer 2018 a number of key learnings regarding sites, water classification, permits, seed acquisition, and assessment of site suitability for geoduck aquaculture emerged. Project objectives are being refined and lessons learned are being collated.
- Increasing the technical capacity of the Coastal Guardian Watchmen through mentorship
  and training with CCIRA technical staff and other program partners. Current funding for
  training and monitoring activities by two Guardian Watchmen staff for each Nation (eight
  staff for the Central Coast in total) is providing the foundation of existing and future
  compliance and monitoring employment opportunities.
- Supporting each Central Coast Nation to hire a SEAS (Supporting Emerging Aboriginal Stewards) coordinator. Some Nations ran summer cultural camps, hired youth interns to participate in their stewardship department activities, and/or integrated learning about traditional harvest from elders and marine management experiential learning opportunities into their school curriculums.





Table 4. Implementation status of strategies identified in the 2018-19 work plan related to Sustainable Economic Development and Healthy Communities

Central Coast Marine Plan Strategy	Implementation Status as of March 31, 2019	Key upcoming actions in 2019-20
<b>Tenured Activities 9.2</b> : Encourage First Nations and local ownership and operation of aquaculture tenures.	On track	Explore new opportunities to further advance the geoduck aquaculture pilot project with North Island College.
Tenured Activities 9.3: Prepare a review of infrastructure requirements for First Nations and local community processing of aquaculture products in cooperation with relevant government agencies, industry and stakeholders.	Not started	No activities planned for 2019-20.
Traditional, Cultural and Heritage Resources  2.2: Support programs and activities that encourage youth involvement in traditional use activities and stewardship of the marine environment.	Complete/ functioning	Continue to support the SEAS program.

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

The Central Coast partners supported regional climate change and adaptation planning initiatives. Although there were no sub-regional strategies related to the climate change outcome listed in the 2018-19 work plan, many of the implementation activities contributed to this outcome area. Key achievements included:

- Monitoring regional and sub-regional EBM values related to key climate change indicators that include eelgrass, kelp, sea surface temperature, and dissolved oxygen.
- Working closely with the Hakai Institute to find opportunities to collaborate in monitoring
  efforts for kelp, seagrass and oceanographic indicators, in ways which link the strengths of
  the Guardian Watchmen and Hakai Institute.
- Continuing to collaborate with the West Coast Conservation Land Management Program to
  monitor Koeye, Asseek and Bella Coola estuaries. This work will result in greater
  understanding of climate change impacts on estuaries and will be used in a Coast-wide
  model to help determine how and where to allocate resources to support estuary health
  and adaptation, and will provide a measurement of estuary resiliency across the Coast.



#### **LOOKING AHEAD**

In 2018-19, we implemented priority strategies related to governance and stewardship, monitoring and enforcement. In 2019-20 we will continue to build on the work of previous years to advance priority strategies under these and other strategic outcome areas. Key activities for 2019-20 are summarized below.

**Collaboration and Governance**: We will keep stakeholders and local government apprised of implementation progress and seek advice on topics such as the draft Marine Protected Area (MPA) Network and long-term MaPP implementation governance structures and priorities.

**Marine Zoning**: We will focus on PMZ management planning, continue to explore options for zoning Areas that Require More Detailed Planning, and work to address the identified gap in direction for wild marine aquatic plant harvest in the Central Coast Marine Plan.

**Stewardship, Monitoring and Enforcement**: We will be working to secure continued funding for key program areas, including the Guardian Watchmen program, and will continue to advance multi-year projects including data collection and analysis of the remaining indicators for the Central Coast EBM indicator monitoring program and response planning.

**Sustainable Economic Development and Healthy Communities**: We will monitor geoduck aquaculture feasibility at four pilot sites in order to help establish this emerging industry on the Central Coast. We will continue to support the SEAS program to mentor youth in traditional harvesting, marine management and tourism.

Climate Change and Adaptive Management: We will continue to support regional climate change and adaptation planning initiatives; collaborate with the West Coast Conservation Land Management Program to monitor Koeye, Asseek and Bella Coola estuaries; and enhance monitoring of regional and sub-regional EBM values related to climate change including sea surface temperature, dissolved oxygen, salinity, and pH at key cultural and ecological sites across the Central Coast.

#### **GRAPHICS AND FIGURES**

The following graphics illustrate implementation status of the strategies identified in the 2018-19 workplan. Implementation status is defined as follows:

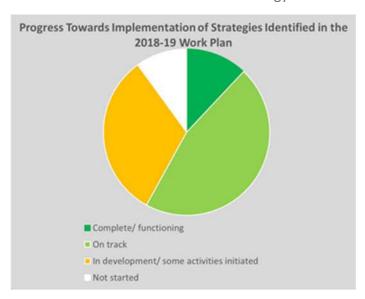
**Complete/functioning** – Of the discrete activities intended to be undertaken for this strategy, all are completed. Of the continuous activities intended to be undertaken for this strategy, all are fully operational and ongoing.

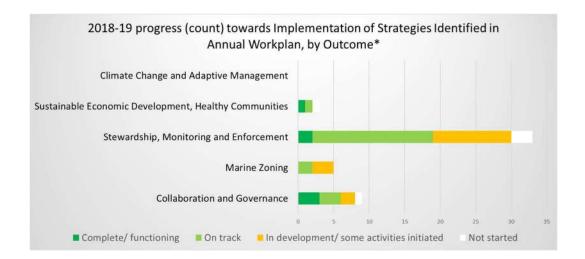


**On track** – All discrete activities intended to be undertaken for this strategy in 2018-19 are completed. All continuous activities intended to be undertaken for this strategy in 2018-19 are fully operational.

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.







<sup>\*</sup>The Central Coast partners supported regional climate change and adaptation planning initiatives. There were no sub-regional strategies related to the climate change outcome in the 2018-19 workplan.



## 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.















