

MARINE PLAN PARTNERSHIP FOR
THE NORTH PACIFIC COAST

**CENTRAL COAST
ANNUAL
REPORT**

2020-2021



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MESSAGE FROM THE IMPLEMENTATION TEAM

The Central Coast Marine Plan outlines a vision, objectives and strategies for the stewardship and management of the Central Coast’s coastal and marine areas and provides guidance and recommendations for First Nations and provincial agencies in their evaluation of coastal and marine-based activities and uses.¹

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 2020-2021 annual report. This report reflects implementation progress made between April 1, 2020 and March 31, 2021. 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,

Handwritten signature of Vicki Sahanatien in black ink.

Vicki Sahanatien (Co-Lead, Central Coast Indigenous Resource Alliance)

Handwritten signature of Sally Cargill in black ink.

Sally Cargill (Co-Lead, Province of British Columbia)

¹ The Central Coast Marine Plan is available online at <http://mappocean.org/central-coast/central-coast-marine-plan/>

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 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 MakeWay Foundation.

IMPLEMENTATION PROGRESS OVERVIEW

Implementation priorities for the Central Coast Marine Plan were identified during the planning phase (2011-2015) and are further scoped through annual work planning and budgeting. 2020-21 was a challenging year due to the novel coronavirus pandemic. Remote coastal communities are particularly vulnerable to this threat, and travel restrictions and other social distancing measures to prioritize the safety of communities made some of our work plan activities more difficult to carry out. So too did limitations of available funding, which impacted several planned projects and the capacity of First Nations leadership and technical staff to engage in MaPP implementation. Despite these challenges, MaPP Guardians from the Heiltsuk, Kitasoo/Xai'xais, Nuxalk and Wuikinuxv Nations were on the water implementing our EBM Indicator Monitoring program through the collection of indicator data on key species and habitats, as well as marine spills and pollution, vessel traffic, and oceanographic conditions. Faced with a funding gap for this priority work in the coming years, the CCITT has developed a fundraising strategy to articulate the value of the Guardian Watchmen implementing the monitoring program to ensure continuity while MaPP partners work at a regional level to establish a longer-term funding structure for MaPP implementation.

Analyses were completed and a Summary report written on the data collected during the first five years of EBM indicator monitoring by Guardian Watchmen and partner organizations. Finalizing and publishing this report was delayed this year by capacity constraints for all Central Coast Partners but will be completed early in 2021-22.



To achieve the MaPP marine EBM framework goals, which are to preserve ecosystem integrity, support human well-being and deliver good governance, a total of 28 ecological, socio-economic, cultural and governance-related indicators were selected by the Central Coast partners. Thus far the Central Coast focus has been on monitoring of ecological indicators and we recognize the importance of turning our attention to indicators related to the collaborative governance and human well-being objectives of our Marine Plan. In June 2020, the regional 'Human Well-Being' working group (reporting to the EBM sub-committee) was established to advance socio-economic, cultural, and governance indicators. Members of the CCITT participate in the working group and have contributed to the development of proposals for new indicators. This effort will also include engagement with stakeholders at regional and Central Coast sub-regional levels. The goal is to finalize and begin monitoring Human-Wellbeing Indicators in 2021-22.

Encouraging First Nations and local ownership and operation of aquaculture tenures is one of the priority economic development strategies in the Central Coast Marine Plan. The Central Coast MaPP partners have begun work to advance development of shellfish aquaculture on the Central Coast. This year the partners and North Island College (NIC) were awarded an NSERC Applied Research and Development (ARD) grant to explore the feasibility of geoduck aquaculture in the BC Central Coast. In June, representatives of NIC, the MaPP partners, DFO, and the Central Coast Commercial Fisheries Association (CCCFA, a for-profit business alliance of the four Central Coast Nations) held their first planning meeting to kick-off the geoduck feasibility research project. Project planning (study site selection, permit applications, refinement of research methods and fieldwork logistics, etc.) continued throughout the second half of the year. Planting the geoduck seed is scheduled for Spring 2022. Monitoring of geoduck growth and site conditions will follow for 2 years. As noted in the NSERC grant application, "Geoduck aquaculture is a highly lucrative, economic development opportunity for coastal communities. To our knowledge, this project will provide the first pre-commercialization research on geoduck aquaculture in the Central Coast and will build capacity within the CCCFA to become the region's first geoduck aquaculture company."

IMPLEMENTATION PROGRESS DETAILS

This section highlights the key achievements in the implementation of the Central Coast Marine Plan in 2020-21, organized under five strategic outcome areas.

Each outcome section includes a table that lists the related priority strategies that the Central Coast partners worked on in 2020-21. For each strategy, a scorecard is provided that shows the implementation status of the strategy and key upcoming actions in 2021-22. Full implementation of many of the strategies will take several years.



Photo credit: Michael Vegh

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 2020-21 are completed. All continuous activities intended to be undertaken for this strategy in 2020-21 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 2020-21.

Outcome 1: Collaboration and Governance

Strengthening the model of collaborative oceans governance.

The Central Coast partners are committed to implementing the Central Coast Marine Plan in a manner that is collaborative, coordinated, efficient and responsive to their shared interests, and in 2020-21 they maintained and strengthened the relationships and governance structures required to do so. Key achievements included:

- the MaPP partners were heavily engaged in the MPA network planning process this year. The draft 'Scenario 2' for the network was completed in January 2021 and is anticipated to be completed in May 2021. Most Protection Management Zones (PMZs) within the Central Coast MaPP region were proposed as high priority areas for protection in the network.
- CCIRA was unable to facilitate open houses / public information sessions in Central Coast communities this year due to limitations of available funding and Covid-19 travel restrictions but maintained regular virtual engagement with the Nations' stewardship offices and participation in MaPP implementation structures. In response to the funding limitations, CCIRA temporarily subsidized costs to participate in MaPP implementation.
- The Central Coast Implementation Technical Team (CCITT) undertook a review of the Marine Plan to identify areas requiring amendment and drafted several amendment proposals to be discussed with stakeholders and finalized in 2021-22. With the proposed amendments, the Marine Plan will more accurately reflect the planning direction of the Central Coast MaPP Partners and align the Plan more closely with the Nations' requirements with respect to engagement on proposed activities within their territories.
- A preliminary high-level 'Phase 2' work plan and budget were developed for the next five years of MaPP implementation (2021-26) to support planning and fundraising efforts.



Table 1. Implementation status of strategies identified in the 2020-2021 work plan related to Collaboration and Governance.

| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|--|--|---|
| <p>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.</p> | <p>Complete/ functioning</p> | <p>Working at a government-to-government level (FN-Fed-Prov) and with stakeholders to develop a final network scenario and action plan. Collaborative drafting of a co-governance agreement for network implementation.</p> |
| <p>Governance 2.3: Seek required resources identified for the implementation of the Central Coast Marine Plan, including those required for governance structures.</p> | <p>Complete/ functioning</p> | <p>Seeking interim funding for EBM indicator monitoring by MaPP Guardian Watchmen.</p> |
| <p>Governance 2.4: Establish a stakeholder advisory process that supports the successful implementation of the Central Coast Marine Plan.</p> | <p>Complete/ functioning</p> | <p>Receiving and integrating stakeholder feedback on plan amendment proposals, EBM monitoring summary report, and review and planning for the EBM monitoring program.</p> |
| <p>Tenured Activities 1.2: Develop provincial guidelines which support the development of protocols between First Nations and tenure proponents.</p> | <p>On track</p> | <p>Finalizing and planning the circulation of a draft guidance document for developing protocol agreements between commercial operators and Central Coast Nations.</p> |

| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|---|--|--|
| <p>Traditional, Cultural and Heritage Resources 3.3: 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.</p> | <p>On track</p> | <p>See above.</p> |
| <p>Traditional, Cultural and Heritage Resources 3.5: Ensure research protocols developed between First Nations and researchers identify local sensitivities and guide human activities around sensitive cultural and archaeological sites.</p> | <p>Complete/ functioning</p> | <p>Using developed research applications and agreements as required.</p> |



Outcome 2: Marine Zoning

Achieving a healthy marine environment, robust economy and strong communities through zoning.

Addressing marine zoning priorities – including additional planning for areas that were not completed during the original planning phase – has been delayed while the Central Coast Nation's concentrate on building capacity to engage in parallel terrestrial planning processes. These processes, which relate to marine forestry operations, will have implications for marine use planning and are therefore being prioritized. Key achievements in 2020-21 included:

- Planning and stakeholder engagement was completed for two 'Areas Requiring More Detailed Planning (ARMDPs)' (Burke Channel, and Fog Creek/Green River), and proposals to integrate these two areas into the amended Marine Plan as new PMZs have been developed.

Table 2. Implementation status of strategies identified in the 2020-2021 work plan related to Marine Zoning.

| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|---|--|---|
| <p>Tenured Activities 3.3: Conduct detailed planning in:</p> <ul style="list-style-type: none"> • 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 | Further work towards this strategy will be on hold until terrestrial planning associated with the Great Bear Rainforest Agreement has been completed. |

| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|--|--|---|
| <p>Traditional, Cultural and Heritage Resources 1.1: Incorporate the protection of sensitive cultural and archaeological sites into the management of PMZs.</p> | <p>On track</p> | <p>Monitoring priority cultural sites through the Guardian Watchmen program. Posting Guardian Watchmen in high-priority areas during the busiest part of the tourism season. Engaging stakeholders to amend statements in Marine Plan related to conditionally acceptable activities in PMZs.</p> |
| <p>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</p> | <p>On track</p> | <p>Ongoing engagement in the Marine Protected Area Technical Team (MPATT) to identify opportunities for PMZs to inform MPA Network design. Developing a final MPA network scenario and action plan.</p> |
| <p>Marine Protection 1.3: Develop management tools and protection measures for collaboratively managing Protection Management Zones (PMZs).</p> | <p>In development/ some activities initiated</p> | <p>Building on lessons from piloting PMZ management plans to amend Marine Plan and produce resources for Nations' stewardship staff regarding additional guidance to direct and assess conditionally allowable activities in PMZs.</p> |

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 MaPP provided funding for two Coastal Guardian Watchmen in each Nation to support ongoing implementation of this outcome area - a key priority for the Central Coast partners since Plan implementation began. Key achievements in 2020-21 included:

- MaPP-funded Central Coast Guardian Watchmen collected a variety of ecological (e.g., kelp, rockfish) and other (vessel traffic, marine spills) indicator data as part of our ongoing EMB indicator monitoring program. Over time this data will support informed decision making and adaptive management in the Central Coast Marine Plan Area.
- 14 draft EBM indicator reports were finalized and will be circulated to the Central Coast Partners for review and approval early in fiscal 2021-22. The reports, which include all indicators under the 'Species and Habitat' theme, are based on analysis of data collected by the Central Coast Guardians over the past 4-5 years, and from other sources.
- In August 2020 the regional MaPP Marine Plant Harvest Policy sub-committee was established to support the development of Nation and/or subregion specific licence conditions, better monitoring of commercial kelp harvest, spatial direction, and recommendations for the overall management of commercial kelp harvest.
- In Spring 2021 members of the CCITT participated in a series of workshops on the Regional Kelp Monitoring Program (RKMP), which brought together participants from all MaPP sub-regions and partner organizations to reflect on what has been learned and discuss next steps for the program. In addition to supporting the implementation of kelp monitoring on the Central Coast, the workshops may also serve as a model to inform the review, adaptation and development of our EBM monitoring program.
- While regional efforts are underway to develop a Business Case and secure stable long-term MaPP funding, the CCITT contracted a fundraising strategy (delivered in October) and developed a budget and case for support for targeted fundraising for the EBM monitoring work of the Central Coast Guardian Watchmen. Addressing the funding gap for this work will be a key priority in 2021-22.

Table 3. Implementation status of strategies in the 2020-2021 work plan related to Stewardship, Monitoring and Enforcement.

| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|---|---|--|
| <p>Monitoring & 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.</p> | <p>On track</p> | <p>Working with Coastal First Nation representatives and Stewardship Directors to ensure context about executive level discussions on compliance and enforcement are properly conveyed to operational level.</p> |
| <p>Monitoring & Enforcement 2.2: Improve understanding and communication between relevant compliance and enforcement agencies.</p> | <p>In development / some activities initiated</p> | <p>If requested, supporting Compliance & Enforcement workshops for Guardians and Provincial agencies and/or joint training and patrol opportunities. Development by Nations / Stewardship Directors of project plans to guide when and where joint patrols should be conducted. Conference calls to maintain / advance coordination and collaboration.</p> |
| <p>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.</p> | <p>In development / some activities initiated</p> | <p>See above.</p> |

| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|--|--|--|
| <p>Monitoring & Enforcement 2.4: Establish Memorandums of Understanding between First Nations and relevant Crown agencies to clarify monitoring and enforcement authority roles and responsibilities.</p> | <p>Not started/ not applicable to certain sub-regions.</p> | <p>Continuing to lay the groundwork for this strategy through implementation of Monitoring & Enforcement strategies 2.1-2-3.</p> |
| <p>Monitoring & Enforcement 2.5: Establish a communications strategy that ensures the effective flow of information and timely action on monitoring and enforcement issues.</p> | <p>In development / some activities initiated</p> | <p>Establishing a communications strategy and action plan for monitoring and addressing enforcement issues. Exploring opportunities for collaborating with BC Parks.</p> |
| <p>Monitoring & Enforcement 2.6: Develop a monitoring and assessment needs report for current and future requirements, including resources, across all agencies.</p> | <p>Complete / functioning</p> | <p>Using the Central Coast Monitoring Needs Assessment (produced in 2018) to finalize a fundraising strategy and budget for the Guardian Watchmen program.</p> |
| <p>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.</p> | <p>On track</p> | <p>Using the fundraising strategy and case for support to secure interim funding for the MaPP Guardian Watchmen.</p> |

| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|---|--|--|
| <p>Monitoring & Enforcement 2.8: Build capacity for appropriate levels of monitoring and enforcement with particular attention to monitoring and enforcement within MPAs.</p> | <p>On track</p> | <p>Ongoing support for capacity building in First Nations communities through skills training and investments in equipment and fuel. Training will occur remotely, with opportunities for peer-to-peer training and on-site training explored as covid restrictions ease.</p> <p>If requested, supporting Compliance & Enforcement workshops for Guardians and Provincial agencies and/or joint training and patrol opportunities.</p> |
| <p>Monitoring and Enforcement 3.1: Develop an agreement that enables on the ground agencies or staff to work collaboratively with existing monitoring and assessment programs in order to collect data that inform the adaptation of management policies and programs.</p> | <p>On track</p> | <p>Support development and implementation of regional marine aquatic plant management policies, including monitoring programs, through the Regional Kelp Monitoring Program.</p> <p>Considering plan amendments in response to spatial recommendations of the Marine Plant Harvest Policy sub-committee.</p> |
| <p>Monitoring & Enforcement 3.3: Provide First Nations and relevant local residents with training on collecting data related to EBM indicators in order to improve monitoring participation.</p> | <p>Complete / functioning</p> | <p>See Monitoring & Enforcement 2.8, above.</p> |

| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|--|--|---|
| <p>Monitoring & Enforcement 3.5: Prioritize marine species and habitats that require targeted monitoring, including invasive species.</p> | Complete / functioning | See next. |
| <p>Monitoring & Enforcement 3.6: Measure long-term changes in ecological integrity and human wellbeing using the Central Coast sub-regional EBM indicators identified during implementation of the central coast marine plan.</p> | On track | Continuing implementation of EBM indicator monitoring program, including through ongoing improvement in monitoring consistency and quality. Publicizing report summarizing EBM indicator data analysis and continuing to build capacity for reporting on monitoring and informing management. Working with the MaPP region and stakeholders to review the Central Coast monitoring program. |
| <p>Tenured Activities 2.1: Assess provincial tenures in the Plan Area and review their current level of activity. Where appropriate, work with relevant agencies to reduce the number of inactive or under-utilized tenures.</p> | In development / some activities initiated | Guardian Watchmen will continue to monitor active tenures to inform future discussion on inactive or underutilized tenures. |
| <p>Tenured Activities 11.1: Work with relevant agencies to continue engaging industry in improving / developing Best Management Practices that also incorporate First Nations values, concerns and interests for logging-related activities that affect marine areas.</p> | On track | Continuing to work with stakeholder reps to review log-handling BMPs on the Central Coast, including potential mitigative/preventative measures and protocols for marine assessments. |

| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|---|--|--|
| Tenured Activities 11.2: Work with relevant agencies to ensure compliance with Best Management Practices for logging-related activities | On track | If requested, supporting Compliance & Enforcement workshops for Guardians and Provincial agencies and/or joint training and patrol opportunities. |
| Tenured Activities 11.3: Monitor floating camps, barges and land-based facilities for potential marine ecological impacts. | Complete / functioning | Ongoing monitoring by Guardian Watchmen of forestry floating camps, barges and land-based facilities. |
| 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 | See Tenured Activities 11. 2 (above). |
| 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, identifying, designing and creating key communication products that will inform local communities and tourists about First Nations title and rights, cultural areas and sites, cultural beliefs and values with respect to marine resources. |
| Traditional, Cultural and Heritage Resources 3.2: Develop guidelines that teach potential visitors about basic etiquette while visiting cultural and archaeological sites. | On track | See above. |

| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|---|--|--|
| Pollution 1.3: Promote the establishment of waste disposal infrastructure, including vessel haul-out facilities and pump outs, throughout the Plan Area. | On track | Assisting Heiltsuk Tribal Council and Public Works Department to identify and secure funding for pump-out facility construction. |
| Pollution 2.1: 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. | On track | Undertaking priority restoration projects at Namu as directed by the collaborative governance structure. Pursuing opportunities to restore other priority areas identified by Guardian Watchmen and bringing forward lessons learned for decision-making on other priority restoration projects. |
| Pollution 2.2: Develop, implement and prioritize restoration plans, as appropriate. | In development / some activities initiated | See above. |
| 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 | Supporting response planning on the Central Coast in collaboration with Transport Canada, including developing Geographic Response Strategies that outline field responses and equipment needs in the event of a marine incident at specific sites. |
| Pollution 3.2: Develop information-sharing protocols that ensure the efficient flow of information and data among all levels of government. | On track | Same as above. |
| Pollution 3.5: Ensure that sufficient response capability is in place before marine activities are approved. | On track | Same as above. |

| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|---|--|---|
| Pollution 4.1: Research and compile effective components of successfully implemented marine response plans in other geographic regions. | On track | Same as above. |
| Pollution 4.2: Work with relevant Crown agencies and FN to gather and analyze all relevant information and data to populate marine response plans. | On track | Same as above. |
| Climate Change Adaptation and Mitigation 1.1: Review regional climate change indicators and select those that are relevant to the Central Coast Plan Area. | Complete / functioning | Continuing to monitor regional and sub-regional EBM indicators related to climate change, including eelgrass, kelp, sea surface temperature, estuaries and dissolved oxygen. Working with the MaPP region and stakeholders to review the Central Coast monitoring program, including climate change and other EBM indicators. |
| Marine Fisheries Economy 4.2: Identify gaps in enhancement and restoration activities based on ecological, social and economic need. | In development | Continuing to record tenure sites with abandoned gear or other concerns. Pursuing restoration of priority areas as funding opportunities arise. |



Outcome 4: Sustainable Economic Development and Healthy Communities

Fostering a new ecosystem-based marine economy for improved community and human well-being.

This strategic outcome will increase stability and certainty for industries and communities by providing clear direction for existing and emerging sectors, reducing potential conflicts, and managing sustainability of the marine economy. Key achievements in 2020-2021 included:

- In May 2020 we received confirmation of NSERC (Applied Research Grant) funding to support a Shellfish Aquaculture Feasibility study to monitor and evaluate five geoduck pilot sites in the Central Coast. Investigating the feasibility of geoduck aquaculture in their territories and advancing a diversified shellfish aquaculture sector on the Central Coast generally, is a strong interest to the Central Coast Nations. This project will be conducted over three years by North Island College (NIC) and the Heiltsuk, Kitsoo/Xai'xais and Wuikinuxv Guardians in partnership with the Central Coast Commercial Fisheries Association (CCCFA), CCIRA, MaPP (the CCITT) and DFO.

Table 4. Implementation status of strategies identified in the 2020-2021 work plan related to Sustainable Economic Development and Healthy Communities

| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|--|--|---|
| Tenured Activities 9.2: Encourage First Nations and local ownership and operation of aquaculture tenures. | On track | Monitoring and evaluating geoduck pilot sites in partnership with North Island College and the Central Coast Commercial Fisheries Association (CCCFA). |
| 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. | In development/ some activities initiated | Exploring opportunities to support the Supporting Emerging Aboriginal Stewards (SEAS) program and engage non-Indigenous youth in activities related to understanding and managing the marine environment. |

| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|---|--|---|
| <p>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.</p> | Complete / functioning | Coordinating with the CCCFA on their work to assess license access, business planning, funding for processing and license acquisition and building capacity to participate in commercial fisheries. |
| <p>Marine Fisheries Economy 6.4: Identify new and expandable export markets for Central Coast seafood products.</p> | On track | See above. |
| <p>Marine Fisheries Economy 7.1: Facilitate development and implementation of protocol agreements between First Nations and recreational fishery service providers, where appropriate.</p> | On track | Finalizing and planning the circulation of a draft guidance document for developing protocol agreements between commercial operators and Central Coast Nations. |



Outcome 5: Climate Change and Adaptive Management

Undertaking studies and plans to better address the effects of climate change in the MaPP region.

This outcome will determine cultural, social, ecological, and economic vulnerability to different climate change effects, and inform adaptation plans. Although the 2020-21 annual work plan included only two sub-regional strategies directly related to climate change, the Central Coast Partners continued to support regional climate change and adaptation planning initiatives and many of our implementation activities contributed to this outcome area. Key achievements included:

- Early in the implementation phase three climate change and oceanography indicators were selected for monitoring in the Central Coast Plan Area: dissolved oxygen, salinity and sea surface temperature. Although plans for monitoring these indicators systematically have not yet been developed, relevant data is being collected at regional and sub-regional levels through other indicator monitoring, including eelgrass distribution, kelp distribution and abundance, estuary resilience to climate change, and *Pyropia* abundance. Heiltsuk and Nuxalk Guardian Watchmen worked with the West Coast Conservation Land Management Program (WCCLMP) to monitor estuarine health at Asseek / Asiixw, Koeye / Kvai, and Bella Coola estuaries, and CCIRA staff (field technician) received training on the use of monitoring equipment from Nature Trust, which they in turn provided to the Guardian Watchmen.
- A review of all Central Coast EBM indicators, including those related to climate change is planned for 2021-22.

Table 5. Implementation status of strategies identified in the 2020-2021 work plan related to Climate Change and Adaptive Management

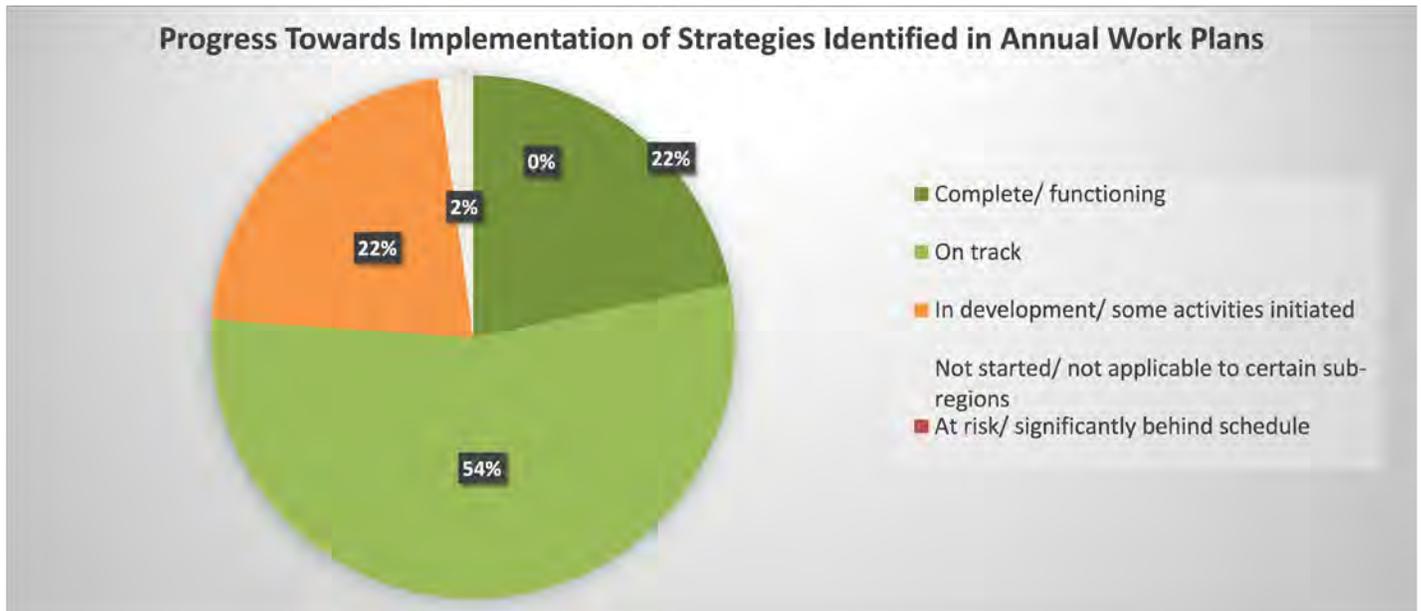
| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|--|--|--|
| Climate Change Adaptation and Mitigation 2.1: Determine which climate change indicators can be monitored through partnerships with local organizations and individuals, such as the Coastal Guardian Watchmen and citizen science groups. | On track | Continue partnership with the West Coast Conservation Land Management Program (WCCLMP) to monitor estuarine health at Asseek, Koeye, and Bella Coola estuaries. Continue working with the Hakai Institute to monitor EBM |

| Central Coast Marine Plan Strategy | Implementation Status as of March 31, 2021 | Key upcoming actions in 2021-22 |
|--|--|---|
| | | indicators related to climate change. |
| Climate Change Adaptation & Mitigation 3.1: Identify marine habitats and species with critical ecosystem functions and roles. | On track | Continue to identify and consider habitats and species that require targeted monitoring through both the sub-regional and regional EBM indicator monitoring programs. |



FIGURES

The following figures illustrate the implementation status of the strategies identified in the 2020-2021 workplan.



LOOKING AHEAD

While the challenges we faced in 2020-21 will continue to impact our work in 2021-22, the Central Coast Partners will build on the work of previous years to advance priority strategies under the five strategic outcome areas. The key activities planned for 2021-22 are summarized below.

Collaboration and Governance: We will continue to support the governance structures that have been established for MaPP implementation, and work with government partners to develop new collaborative governance arrangements for an MPA network in the Northern Shelf Bioregion (NSB). We will be making several minor amendments to the Central Coast Marine Plan this year to bring the Plan up to date with progress and activities that have occurred since the planning phase, and to ensure that the Plan continues to accurately reflect the planning direction of the Central Coast MaPP partners. We will also complete a document with information on protocol agreements for tourism operators and recreational fishing service providers who are interested in operating in First Nations territories. As a key component of the MaPP governance model, we will engage with stakeholders through the Central Coast Marine Plan Implementation Advisory Committee (MPIAC) to keep committee members informed and receive their input on these and other activities in our annual workplan.

Marine Zoning: We will continue to engage in the ongoing process to establish an MPA Network in the Northern Shelf Bioregion, including identifying opportunities for PMZs in the Marine Plan to inform the MPA Network design. We also plan to produce resources for the Nations' stewardship staff to help assess conditionally allowable activities in PMZs. The focus of this work will be on marine forestry.

Stewardship, Monitoring and Enforcement: As in previous years, supporting the work of Coastal Guardian Watchmen to monitor the suite of EBM indicators will be a priority in 2021-22. Crucially, given a funding shortfall for implementation activities and capacity support this year, we will be concentrating on implementing a fundraising strategy to maintain this important work. We will also be sharing the first results of our EBM monitoring with a broader audience through the publication of 14 indicator reports and a summary of key findings. This year we plan to undertake a review of the Central Coast EBM monitoring indicators based on the five-year analyses and input from Nations, monitoring specialists, and stakeholders.

Sustainable Economic Development and Healthy Communities: A key activity under this outcome area will be the geoduck feasibility study, which we began in 2020-21 with North



Island College and the Central Coast Commercial Fisheries Association (CCCFA). Much of the work to prepare for this project is now complete and some water quality monitoring is already underway. The research phase will begin in Spring 2022. The Supporting Emerging Aboriginal Stewards (SEAS) program also remains a high priority for the Central Coast Partners. Unfortunately, MaPP was unable to support this program in 2020-21 as we have done in previous years. If funding is unavailable again this year, we will explore other opportunities to support the program, including through engagement with the Guardian Watchmen program and support for Nature United's efforts to secure long-term funding for SEAS.

Climate Change and Adaptive Management: Marine Plan strategies related to climate change will continue to be addressed in 2021-22 primarily through the implementation of the Central Coast EBM monitoring program, including the Guardian Watchmen's monitoring of estuarine health at Asseek, Koeve and Bella Coola estuaries in partnership with the West Coast Conservation Land Management Program. Although these strategies were not prioritized directly by the Central Coast partners in Phase 1 of MaPP implementation (2015-2020), climate change adaptation and mitigation are cross-cutting issues that touch on many strategies and activities. Developing a better understanding of vulnerabilities to climate change on the Central Coast, and how they can be mitigated, will be a focus for the Partners in the next five years.



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.

