

# Marine Plan Partnership (MaPP) Initiative

## **Contract Announcement:**

## Geoduck Aquaculture Economic Feasibility Study in the Central Coast

The MaPP initiative seeks to contract a consultant or consultants to conduct an economic feasibility assessment for initiating Central Coast First Nation-led commercial sub-tidal geoduck aquaculture.

## Background

The Marine Plan Partnership for the North Pacific Coast (MaPP) is a collaborative process for implementing marine plans for the coastal and marine areas of Haida Gwaii, North Coast, Central Coast, and North Vancouver Island. MaPP is a co-led process between 17 First Nations and the Province of British Columbia (BC). The marine plan for the Central Coast, completed in 2015, was co-developed by the Province of B.C. and the Heiltsuk, Kitasoo Xai'Xais, Nuxalk and Wuikinuxv Nations, represented by CCIRA ("the Central Coast MaPP partners"). The Central Coast Plan Area (<u>http://mappocean.org/central-coast/</u>) extends from Laredo Channel and the northern tip of Aristazabal Island in the north to Rivers Inlet and Calvert Island in the south. Bella Coola, Bella Bella, Ocean Falls, Wuikinuxv, Shearwater and Klemtu are the largest communities in the Plan Area, which supports an overall population of approximately 3,500.

The Central Coast Marine Plan outlines a vision, objectives and strategies for the stewardship and management of 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. The Central Coast MaPP partners are working to implement the recommendations in the Central Coast Marine Plan, with input from communities, stakeholders, local governments, and the broader public.

#### Overview

Promoting new, sustainable economic opportunities including First Nation-led shellfish aquaculture is one of the key priorities on the Central Coast. The Central Coast MaPP Plan identifies shellfish and marine plant aquaculture as emerging marine sectors that could play important economic roles in Central Coast communities.

Since 2016, the Central Coast MaPP partners have been engaging with industry experts and academics to advance research, primarily focused on Geoduck aquaculture. Activities to date have included developing of expert recommendations for biophysical suitability, developing a Habitat Suitability index, and since 2020, planting and monitoring geoduck seeds at four pilot sites in Heiltsuk and Kitasoo/Xai'Xais territories. Building on the experience and knowledge gained through the previous research, the Central Coase MaPP partners are now seeking to assess the economic feasibility for initiating Nation-led commercial sub-tidal geoduck aquaculture.

#### **Contract Summary**

#### Tasks and Deliverables

A consultant or consulting team is required to prepare a desktop economic feasibility assessment in the Central Coast Plan Area. To support the overall objective of initiating First Nation-led geoduck aquaculture operations on the Central Coast, the consultant or consulting team will work with the research partners (Central Coast Indigenous Resource Alliance (CCIRA), Central Coast Commercial Fisheries Association (CCCFA), Kitasoo Xai'xais Nation, Heiltsuk Nation, The Province of BC, and the Marine Plan Partnership (MAPP)) to develop site layouts for selected sites on the Central Coast and analyze the economic potential of these sites for geoduck aquaculture. Using this analysis, an operation plan will be developed for the use of Central Coast Nations in developing geoduck aquaculture in their territories.

If elements of the contract are sub-contracted, the consultant or consulting team will remain as the primary contact for this project.

The consultant(s) will be expected to complete the contract in two phases:

#### Phase 1:

- Review relevant literature including findings from the biophysical suitability research phase, reports and other related First Nations run aquaculture operations. The contractor will also review market reporting to assess current market value of geoduck and kelp as well as fluctuations of value over time and future projections. The review will also document reported industry practices including aquaculture site requirements, planting density, and growth rate curves.
- 2. Review permitting and licensing requirements for establishing geoduck aquaculture operations including water quality monitoring and classification, food safety and traceability, and other regulatory requirements. This will be used to develop possible permitting and licensing timelines and associated costs for sampling (conducted by Coastal Guardian Watchmen). This timeline will take into account the proposed National Marine Conservation Area Reserve (NMCAR) and discuss the impacts of the NMCAR zoning on wild harvested geoduck and geoduck aquaculture. This review of policy will also comment on the possibility for flexibility in requirements needed to align with Nations' laws.
- 3. Prepare questions and interview guides to conduct consultations with representatives from other First Nation-led operations and other knowledgeable people from the industry to collate best practices, lessons learned, and logistical and practical considerations. Potential organizations include the Aboriginal Aquaculture Association, other First Nations with commercial geoduck operations, Underwater Harvesters Association, BC Shellfish Growers Association, and BC Ministry of Agriculture and Seafood. Travel to the Central Coast is not required and is not included in the scope of this contract.
- 4. Selection of suitable sub-tidal sites. The consultant will conduct desktop research to select potential sites for sub-tidal aquaculture using existing federal data about subtidal geoduck beds and through consultation with the Nations' Guardian Watchmen and stewardship office staff, and knowledgeable industry representatives such as the Aboriginal Aquaculture Association, other First Nations with commercial geoduck operations, Underwater Harvesters Association, BC Shellfish Growers Association, BC Ministry of Agriculture and Seafood and government representatives from the NMCAR and BC Ministry of Water Lands and Resource Stewardship (WLRS).
- 5. Develop sub-tidal aquaculture site layouts and analyze the production capacity and investment requirement of each test site using the local knowledge from geoduck harvesters within the Nations, as well as the Underwater Harvesters Association and federal geoduck bed data.

6. Present and review the site layouts with the research partners. Feedback will be integrated into the final documents and the CCCFA and Nations will approve the final drafts.

### Phase 1 Deliverables:

- Literature and policy review
- Permitting timeline and license requirements review
- Summaries of interviews with staff at key First Nation, provincial and federal organizations, Industry representatives, and/or other non-government organizations
- Site layouts of selected sites that reflect feedback from the research partners.
- Completion of interim reporting documents as required by grant funder (BC- JEDI).

#### Phase 2:

- 7. Assess the economic feasibility of the identified Central Coast sites through a modelling exercise to understand the investment needed at each site, as well as the associated margins and return on investment. This will be reported and reflected in an operation plan. The analysis will take into account associated operational costs, environmental uncertainties such as harmful algal blooms and ocean temperature, and market trends including tariffs to understand potential profit. This analysis will also consider the impact to the existing wild harvest industry.
- 8. Write a summary report that reflects the findings of the economic feasibility assessment including a set of recommendations based on the assessed economic feasibility. The intention of the reporting is to develop tangible and actionable next steps for the Nations to use in the development of operations on the Central Coast. Final reporting will be presented to Nations' leadership for their consideration and to ensure the outputs meet their needs.
- 9. Develop an operation plan. This plan will incorporate the findings of the economic feasibility exercise and identified regulatory timelines. The analysis will consider the logistics for acquiring tenures; potential funding or partnerships to support start-up; installing infrastructure; fulfilling regulatory requirements; producing, transporting, and planting geoduck seed; harvesting, processing, and shipping geoduck; and meeting food safety requirements. Synergies and economies of scale available to the Nations will be highlighted. The operation plan will also highlight opportunities including funding sources, business accelerators, and other training programs that could support First Nation owned business startup.
- 10. Present and review the feasibility report and operation plan to the CCCFA and partner First Nations. Feedback will be integrated into the final documents and the CCCFA and Nations will approve the final drafts.
- 11. Be available for regular check-in calls with Contract Managers to discuss progress and resolve any issues.

#### Phase 2 Deliverables:

- A final economic feasibility summary report which reflects feedback from the Central Coast MaPP partners
- Geoduck Aquaculture Operation Plan which reflects feedback from the Central Coast MaPP partners
- Virtual presentation to Central Coast MaPP Partners of the final assessment results, delivery of presentation materials
- Completion of final reporting documents as required by grant funder (BC- JEDI).

## **Contract Amount**

• Up to \$100,000

Timeline and Milestones – (subject to change):

- Week of August 4, 2025 Issuance of Contract
- Week of August 11, 2025 Kick off meeting
- Week of September 8, 2025 Policy and Literature review completed
- Week of November 13, 2025 Engagement with Industry operators completed
- Week of February 2, 2026 Site layout of selected sites completed
- Week of March 23, 2026 Completion of Grant funder (BC- JEDI) interim reporting requirements
- Week of November 2, 2026 Economic feasibility report drafted for Nation's review
- Week of February 1, 2027 Operation plan drafted for Nation's review
- Week of March 1, 2027 Economic Feasibility report and Operation Plan finalized
- Week of March 29, 2027 Completion of Grant funder (BC-JEDI) final reporting requirements
- Ongoing Monthly progress check-in with Central Coast Implementation Technical Team

#### MaPP will provide the consultant with

- Review materials documenting initial biophysical research phase provided by MaPP
- Meet by phone with Contract Managers to confirm understanding of goals and objectives for the project, and review and agree upon deliverables and timelines for the project.
- Administrative capacity, information from previous aquaculture research conducted on the Central Coast, and project management support.
- Contact information for appropriate staff from First Nations, the Province of B.C. and the federal government
- Letters of support or introduction for contacts
- Information about spatial zoning framework in the Central Coast Marine Plan

#### **Qualifications, Experience and Skills:**

- Consultant or consulting team with expertise in shellfish aquaculture operations
- Familiarity with the shellfish aquaculture industry, in particular with geoduck aquaculture.
- Familiarity with emerging shellfish policy and regulations
- Experience working with First Nations
- Experience working with provincial and/or federal regulatory agencies

#### To Apply:

Please submit the following by no later than July 25, 2025:

- A proposal that outlines a detailed approach to developing the economic feasibility assessment
- Identification of additional relevant tasks (if any) and rationale for inclusion
- A project budget that includes a cost breakdown for tasks and rates for consulting team
- A brief overview of relevant experience and qualifications along with CV's for consultant or consulting team

Jack Baker Central Coast Project and Technical Coordinator info@mappocean.org