



NETWORK ACTION PLAN

Compendium 1

Existing MPAs in
the Northern Shelf
Bioregion (NSB)

Stakeholder
Engagement and
Consultation Details

Network Design
Guidelines

Descriptions of Current
Activities in the NSB



MPANetwork
BC Northern Shelf

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MPA Network BC Northern Shelf – Governance Partners:

Gitga'at, Gitxaala, Haisla, Kitselas, Kitsumkalum, Metlakatla, Heiltsuk, Kitasoo Xai'xais, Nuxalk, Wuikinuxv, Mamalilikulla, Kwakwaka'wakw, Tlowitsis, and Wei Wai Kum First Nations; Council of the Haida Nation; the Province of British Columbia; and the Government of Canada.

Acronyms

ENGO	Environmental non-governmental organization
IUCN	International Union for Conservation of Nature
MPA	Marine protected area
MPATT	Marine Protected Area Technical Team
MPT	Marine Planning Team
NSB	Northern Shelf Bioregion
NVI	Northern Vancouver Island
I/OAC	Integrated/Ocean Advisory Committee
SFAB	Sport Fishing Advisory Board

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1. Introduction

This compendium provides supplementary material to the Network Action Plan. Developed through a trilateral partnership between the governments of Canada, British Columbia (B.C.), and 15 First Nations (the ‘Governance Partners’), the Action Plan is a blueprint to guide implementation of a network of marine protected areas (MPAs) in the Northern Shelf Bioregion (NSB). This is one of three compendium documents, which provide additional information on the context, components, objectives, and outcomes of the Network planning process.

Included in Compendium 1:

List of Existing MPAs in the NSB

The NSB is home to many existing MPAs and Rockfish Conservation Areas (RCAs) designated under provincial or federal law. The proposed Network will build from this ‘baseline’ of existing MPAs to provide greater protections for marine biodiversity in the NSB (see Action Plan, Chapter 2, s. 2.2, and Chapter 3, s. 3.1).

Stakeholder Engagement and Consultation Details

The Network planning process has relied heavily on the participation and input of resource users and other stakeholders, who will continue to be engaged as the proposed Network is finalized and the process moves into the implementation phase (see Action Plan, Chapter 1, Table 3). Stakeholder advisory committees were the primary means of engaging local community members, resource users, and other stakeholders. Other opportunities for the Governance Partners and stakeholders to exchange information and viewpoints included bilateral meetings and webinars with individual sectors and interest groups.

Network Design Guidelines

The guidelines informed how the Network was designed to achieve the Network goals and objectives and align with the Network planning principles in the *Canada-BC MPA Network Strategy*.¹ They were developed with input from experts² and stakeholders to provide operational guidance on ecological, socio-economic, and cultural factors for Network planning (see Action Plan, Chapter 1, s. 1.3, Figure 2 and Table 3).

Descriptions of Current Activities in the NSB

The Action Plan provides details and/or preliminary assessments of multiple human uses and activities in the planning area. Basic definitions of these activities are provided in this section of the compendium.

Other compendiums:

Compendium 2

- Ecological Conservation Priorities, Spatial Features and Target Ranges
- Conservation Gaps Analysis
- Performance Measures and Associated Report Cards

Compendium 3

- Socio-Economic Overview of the Northern Shelf Bioregion

Additional materials, including draft management measures and monitoring approaches, have been developed to inform and support future establishment of the proposed Network and will continue to be refined in early implementation of the Action Plan.

¹ <https://waves-vagues.dfo-mpo.gc.ca/Library/363827.pdf>

² Technical advice was received from consultants at the Pacific Marine Analysis and Research Association (PacMARA) to assist in operationalizing the sixteen design principles in the *Canada-BC MPA Network Strategy*.

2. Existing MPAs in the NSB

Existing Marine Protected Area	Designation Type	Sub-region(s)
Hecate Strait /Queen Charlotte Sound Glass Sponge Reefs MPA	Oceans Act Marine Protected Area	Central Coast, North Coast, Haida Gwaii
Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site	National Marine Conservation Area Reserve and Haida Heritage Site	Haida Gwaii
Scott Islands marine National Wildlife Area	marine National Wildlife Area	North Vancouver Island, Central Coast, Haida Gwaii
Allison Harbour Marine Park	B.C. Park	North Vancouver Island
Broughton Archipelago Park	B.C. Park	North Vancouver Island
Cape Scott Park	B.C. Park	North Vancouver Island
Codville Lagoon Marine Park	B.C. Park	Central Coast
Cormorant Channel Marine Park	B.C. Park	North Vancouver Island
Coste Rocks Park	B.C. Park	North Coast
Dala-Kildala Rivers Estuaries Park	B.C. Park	North Coast
Eagle Bay Park	B.C. Park	North Coast
Echo Bay Marine Park	B.C. Park	North Vancouver Island
Foch-Gilttoyes Park	B.C. Park	North Coast
God's Pocket Marine Park	B.C. Park	North Vancouver Island
Green Inlet Marine Park	B.C. Park	Central Coast
Homathko Estuary Park	B.C. Park	North Vancouver Island
Jackson Narrows Marine Park	B.C. Park	Central Coast
Khutzeymateen Park (a.k.a. Khutzeymateen/K'tzim-a-deen Grizzly Sanctuary)	B.C. Park	North Coast
Kitson Island Marine Park	B.C. Park	North Coast
Klewnuggit Inlet Marine Park	B.C. Park	North Coast
Lanz and Cox Islands Park	B.C. Park	North Vancouver Island
Lawn Point Park	B.C. Park	North Vancouver Island
Lowe Inlet Marine Park	B.C. Park	North Coast
Marble River Park	B.C. Park	North Vancouver Island
M ^{uq} in/Brooks Peninsula Provincial Park	B.C. Park	North Vancouver Island
Naikoon Park	B.C. Park	Haida Gwaii
Octopus Islands Marine Park	B.C. Park	North Vancouver Island
Oliver Cove Marine Park	B.C. Park	Central Coast
Owyacumish River Park	B.C. Park	North Coast
Penrose Island Marine Park	B.C. Park	Central Coast
Quatsino Park	B.C. Park	North Vancouver Island

Existing Marine Protected Area	Designation Type	Sub-region(s)
Raft Cove Park	B.C. Park	North Vancouver Island
Rebecca Spit Marine Park	B.C. Park	North Vancouver Island
Rendezvous Island South Park	B.C. Park	North Vancouver Island
Rock Bay Marine Park	B.C. Park	North Vancouver Island
Small Inlet Marine Park	B.C. Park	North Vancouver Island
Sue Channel Park	B.C. Park	North Coast
Surge Narrows Park	B.C. Park	North Vancouver Island
Thurston Bay Marine Park	B.C. Park	North Vancouver Island
Union Passage Marine Park	B.C. Park	North Coast
Weewanie Hot Springs Park	B.C. Park	North Coast
Alty Conservancy	B.C. Conservancy	North Coast
Banks Nii Luutiksm Conservancy	B.C. Conservancy	North Coast
Bella Coola Estuary Conservancy	B.C. Conservancy	Central Coast
Bishop Bay-Monkey Beach Conservancy	B.C. Conservancy	North Coast
Bishop Bay-Monkey Beach Corridor Conservancy	B.C. Conservancy	North Coast
Carter Bay Conservancy	B.C. Conservancy	Central Coast
Clyak Estuary Conservancy	B.C. Conservancy	Central Coast
Dzawadi/Klinaklini Estuary Conservancy	B.C. Conservancy	North Vancouver Island
Ecstall Spoksuut Conservancy	B.C. Conservancy	North Coast
Fiordland Conservancy	B.C. Conservancy	Central Coast
Gitxaala Nii Luutiksm/Kitkatla Conservancy	B.C. Conservancy	North Coast
Goat Cove Conservancy	B.C. Conservancy	Central Coast
Hakai Lúxvbálís Conservancy	B.C. Conservancy	Central Coast
Huchsduwachsdnu Nuyem Jees/Kitlope Heritage Conservancy	B.C. Conservancy	North Coast
K'distsausk/Turtle Point Conservancy	B.C. Conservancy	North Coast
K'nabiyaaxl/Ashdown Conservancy	B.C. Conservancy	North Coast
K'tisgaidz/Macdonald Bay Conservancy	B.C. Conservancy	North Coast
K'waal Conservancy	B.C. Conservancy	North Coast
Kennedy Island Conservancy	B.C. Conservancy	North Coast
Khutzeymateen Inlet Conservancy	B.C. Conservancy	North Coast
Khutzeymateen Inlet West Conservancy	B.C. Conservancy	North Coast
Kilbella Estuary Conservancy	B.C. Conservancy	Central Coast
Kimsquit Estuary Conservancy	B.C. Conservancy	Central Coast
Ksgaxl/Stephens Island Group Conservancy	B.C. Conservancy	North Coast

Existing Marine Protected Area	Designation Type	Sub-region(s)
Ksi X'anmaas Conservancy	B.C. Conservancy	North Coast
Ksi xts'at'kw /Stagoo Conservancy	B.C. Conservancy	North Coast
Kts'mkta'ani/Union Lake Conservancy	B.C. Conservancy	North Coast
Kwatna Estuary Conservancy	B.C. Conservancy	Central Coast
Larcom Lagoon Conservancy	B.C. Conservancy	North Coast
Lax ka'gass/Campania Conservancy	B.C. Conservancy	North Coast
Lax Kul Nii Łuutiksm/Bonilla Conservancy	B.C. Conservancy	North Coast
Lax Kwaxl/Dundas and Melville Islands Conservancy	B.C. Conservancy	North Coast
Lax Kwil Dziidz/Fin Conservancy	B.C. Conservancy	North Coast
Lucy Islands Conservancy	B.C. Conservancy	North Coast
Mahpahkum-Ahkwuna/Deserters-Walker Conservancy	B.C. Conservancy	North Vancouver Island
Manzanita Cove Conservancy	B.C. Conservancy	North Coast
Maxtaksim'aa/Union Passage Conservancy	B.C. Conservancy	North Coast
Monckton Nii Łuutiksm Conservancy	B.C. Conservancy	North Coast
Negiy/Neġił/Nekite Estuary Conservancy	B.C. Conservancy	North Vancouver Island
Pałamin/Estero Basin Conservancy	B.C. Conservancy	North Vancouver Island
Phillips Estuary/PNacinux ^w Conservancy	B.C. Conservancy	North Vancouver Island
Qwiquallaaq/Boat Bay Conservancy	B.C. Conservancy	North Vancouver Island
Shearwater Hot Springs Conservancy	B.C. Conservancy	North Coast
Skeena Bank Conservancy	B.C. Conservancy	North Coast
Stair Creek Conservancy	B.C. Conservancy	North Coast
Thulme Falls Conservancy	B.C. Conservancy	North Coast
Ug ^w iwa/Cape Caution Conservancy	B.C. Conservancy	North Vancouver Island
Ug ^w iwa/Cape Caution-Blunden Bay Conservancy	B.C. Conservancy	North Vancouver Island
Wakeman Estuary Conservancy	B.C. Conservancy	North Vancouver Island
Wales Harbour Conservancy	B.C. Conservancy	North Coast
Wawley/Seymour Estuary Conservancy	B.C. Conservancy	North Vancouver Island
Winter Inlet Conservancy	B.C. Conservancy	North Coast
X ^w ak ^w aPnaxdaPma/Stafford/Stafford Estuary Conservancy	B.C. Conservancy	North Vancouver Island
Zumtela Bay Conservancy	B.C. Conservancy	North Coast

Existing Marine Protected Area	Designation Type	Sub-region(s)
Daawuuxusda Heritage Site and Conservancy	Haida Heritage Site and B.C. Conservancy	Haida Gwaii
Damaxyaa Heritage Site and Conservancy	Haida Heritage Site and B.C. Conservancy	Haida Gwaii
Duu Guusd Heritage Site and Conservancy	Haida Heritage Site and B.C. Conservancy	Haida Gwaii
K'uuna Gwaay Heritage Site and Conservancy	Haida Heritage Site and B.C. Conservancy	Haida Gwaii
Kamdis Heritage Site and Conservancy	Haida Heritage Site and B.C. Conservancy	Haida Gwaii
Kunxalas Heritage Site and Conservancy	Haida Heritage Site and B.C. Conservancy	Haida Gwaii
Nang Xaldangaas Heritage Site and Conservancy	Haida Heritage Site and B.C. Conservancy	Haida Gwaii
Tlall Heritage Site and Conservancy	Haida Heritage Site and B.C. Conservancy	Haida Gwaii
Yaaguun Gandlaay Heritage Site and Conservancy	Haida Heritage Site and B.C. Conservancy	Haida Gwaii
Anne Vallee (Triangle Island) Ecological Reserve	B.C. Ecological Reserve	Central Coast
Beresford Island Ecological Reserve	B.C. Ecological Reserve	North Vancouver Island
Byers/Conroy/Harvey/Sinnett Islands Ecological Reserve	B.C. Ecological Reserve	North Coast
Duke Of Edinburgh (Pine/Storm/Tree Islands) Ecological Reserve	B.C. Ecological Reserve	North Vancouver Island
Klaskish River Ecological Reserve	B.C. Ecological Reserve	North Vancouver Island
Moore/Mckenny/Whitmore Islands Ecological Reserve	B.C. Ecological Reserve	North Coast
Robson Bight (Michael Bigg) Ecological Reserve	B.C. Ecological Reserve	North Vancouver Island
Sartine Island Ecological Reserve	B.C. Ecological Reserve	North Vancouver Island
Tow Hill Ecological Reserve	B.C. Ecological Reserve	Haida Gwaii
Vladimir J. Krajina (Port Chanal) Ecological Reserve	B.C. Ecological Reserve	Haida Gwaii
Brim River Hot Springs Protected Area	B.C. Protected Area	North Coast
Foch-Gilttoeyes Protected Area	B.C. Protected Area	North Coast
Hakai Conservation Study Area	B.C. Protected Area	Central Coast
Jesse Falls Protected Area	B.C. Protected Area	North Coast
Cluxewe Wildlife Management Area	B.C. Wildlife Management Area	North Vancouver Island
Quatse Estuary Wildlife Management Area	B.C. Wildlife Management Area	North Vancouver Island
Quatse Estuary Wildlife Management Area	B.C. Wildlife Management Area	North Vancouver Island

Rockfish Conservation Area	Sub-region(s)
Fish Egg Inlet	Central Coast
Goose Island	Central Coast
Kitasu Bay	Central Coast
McMullin Group	Central Coast
West Calvert	Central Coast
Frederick Island	Haida Gwaii
Dunira	North Coast
Goschen	North Coast
Gull Rocks North	North Coast
Gull Rocks South	North Coast
Hodgson Reefs	North Coast
North Danger Rocks	North Coast
Otter Passage	North Coast
Porcher Peninsula	North Coast
Stephens Island	North Coast
West Banks Island	North Coast
West Aristazabal Island	North Coast and Central Coast
Bate – Shadwell Passage	North Vancouver Island
Belleisle Sound	North Vancouver Island
Bolivar Passage	North Vancouver Island
Brooks Bay	North Vancouver Island
Browning Island to Raynor Group	North Vancouver Island
Browning Passage – Hunt Rock	North Vancouver Island
Burley Bay – Nepah Lagoon	North Vancouver Island
Bute Inlet North	North Vancouver Island
Chancellor Inlet East	North Vancouver Island
Chancellor Inlet West	North Vancouver Island
Cracroft Point South – Sophia Islands	North Vancouver Island
Deepwater Bay	North Vancouver Island
Dickson – Polkinghorne Islands	North Vancouver Island
Drury Inlet – Muirhead Islands	North Vancouver Island
Eden-Bonwick-Midsummer-Swanson Islands	North Vancouver Island
Forward Harbour	North Vancouver Island
Goletas Channel	North Vancouver Island
Greenway Sound	North Vancouver Island
Haddington Passage	North Vancouver Island
Hardy Bay – Five Fathom Rock	North Vancouver Island
Havannah Channel	North Vancouver Island
Heriot Bay	North Vancouver Island

Rockfish Conservation Area	Sub-region(s)
Holberg Inlet	North Vancouver Island
Kanish Bay	North Vancouver Island
Kwatsi Bay	North Vancouver Island
Loughborough Inlet	North Vancouver Island
Lower Clio Channel	North Vancouver Island
Mackenzie – Nimmo	North Vancouver Island
Maud Island	North Vancouver Island
Menzies Bay	North Vancouver Island
Nowell Channel	North Vancouver Island
Numas Islands	North Vancouver Island
Octopus Islands to Hoskyn Channel	North Vancouver Island
Port Elizabeth	North Vancouver Island
Read – Cortes Islands	North Vancouver Island
Salmon Channel	North Vancouver Island
Scott Islands	North Vancouver Island
Shelter Bay	North Vancouver Island
Smith Sound CC	North Vancouver Island
Storm Islands	North Vancouver Island
Susquash	North Vancouver Island
Thompson Sound	North Vancouver Island
Thurston Bay	North Vancouver Island
Topknot	North Vancouver Island
Upper Call Inlet	North Vancouver Island
Viscount Island	North Vancouver Island
Wakeman Sound	North Vancouver Island
Walkem Island to Hemming Bay	North Vancouver Island
Wellborne	North Vancouver Island
West Cracroft Island – Boat Bay	North Vancouver Island
Weynton Passage	North Vancouver Island
Smith Sound NVI	North Vancouver Island and Central Coast

3. Stakeholder Engagement and Consultation Details

The table below outlines in-person or virtual meetings and forums, tele-conferences, and webinars held to engage stakeholders in the Network planning process. Led by the MPA Technical Team (MPATT), September 2016 – June 2021.

Date (DDMMYY)	Group/ Organization	Method	Subject / Objectives
14/09/16-15/09/16	The September Bioregional Forum	In-person meeting	<p>Network Planning Forum.</p> <p>Objectives:</p> <ul style="list-style-type: none"> Describe the components of the Network planning process for the NSB, explain the relationship between components, and outline anticipated next steps. Explain how federal, provincial and First Nations governments are working collaboratively to develop the Network. Describe and discuss the proposed stakeholder engagement principles and general approach. Engage participants in a deeper discussion on elements of the Network design process. Support and strengthen the relationship between participants and Governance Partners within the Network planning process.
30/05/17-31/05/17	North Vancouver Island OAC	In-person meeting	<p>Network planning process (first NVI OAC meeting).</p> <p>Objectives:</p> <ul style="list-style-type: none"> Outline technical elements of the planning process and how they will inform marine protected area (MPA) network design scenarios. Discuss the role of NVI Ocean Advisory Committee members in the development of the MPA Network. Review and seek comments on the draft NVI Ocean Advisory committee terms of reference. Support and strengthen the relationship between committee members and Governance Partners.

Date (DDMMYY)	Group/ Organization	Method	Subject / Objectives
16/06/17	Commercial fishing sector	In-person meeting	<p>Fishing industry engagement in the Network planning process.</p> <p>Objectives:</p> <ul style="list-style-type: none"> Discuss a way forward for involvement of the fishing industry in the Network planning engagement process. Proposal for joint project to incorporate fisheries science and local knowledge into the process in a meaningful way.
20/06/17-21/06/17	Central Coast & Bioregional Ocean Advisory Committee	In-person meeting	<p>Network planning process (first Central Coast and Bioregional OAC meeting).</p> <p>Objectives:</p> <ul style="list-style-type: none"> Outline technical elements of the planning process and how they will inform marine protected area (MPA) network design scenarios. Discuss the role of Ocean Advisory Committee members in the development of the MPA Network. Review and seek comments on the draft Ocean Advisory committee terms of reference. Support and strengthen the relationship between committee members and Governance Partners.
29/06/17-30/06/17	Haida Gwaii Integrated Advisory Committee	In-person meeting	<p>Network planning process (first Haida Gwaii Integrated Advisory Committee meeting).</p> <p>Objectives:</p> <ul style="list-style-type: none"> Outline technical elements of the planning process and how they will inform marine protected area (MPA) network design scenarios. Discuss the role of Ocean Advisory Committee members in the development of the MPA Network. Review and seek comments on the draft Ocean Advisory committee terms of reference. Support and strengthen the relationship between committee members and Governance Partners.
16/08/17	Seafood Producers sector	In-person meeting	<p>Network planning process.</p> <p>Objective:</p> <ul style="list-style-type: none"> Further discuss the MPA Network planning process and engagement opportunities.
14/09/17	Commercial fishing sector	In-person meeting	<p>Fishing sector representation on OACs.</p> <p>Objective:</p> <ul style="list-style-type: none"> Discuss an approach that addresses representation of fishing sector interests on the OACs and supports meaningful opportunities for input into the Network planning process.

Date (DDMMYY)	Group/ Organization	Method	Subject / Objectives
18/10/17	North Coast OAC	In-person meeting	Network planning process (first North Coast OAC meeting). Objectives: <ul style="list-style-type: none"> Outline technical elements of the planning process and how they will inform marine protected area (MPA) network design scenarios. Discuss the role of Ocean Advisory Committee members in the development of the MPA Network. Review and seek comments on the draft Ocean Advisory committee terms of reference. Support and strengthen the relationship between committee members and Governance Partners.
27/11/17-28/11/17	Integrated & Ocean Advisory Committees	Webinar	SeaSketch Webinar and MPA Network Geospatial Data Review. Objectives: <ul style="list-style-type: none"> Provide an update on the Network planning process. Provide instruction on how to use the SeaSketch tool and provide feedback. Introduce the data that will soon be available for stakeholder review on SeaSketch.
26/02/18-27/02/18	MPA Network Advisory Committee Workshop	In-person meeting	Objectives: <ul style="list-style-type: none"> Discuss the overall planning approach and, in particular, core elements of the assessment work that will be carried out towards the identification of a MPA Network for the B.C. Northern Shelf area, which will include: <ul style="list-style-type: none"> reviewing a preliminary evaluation framework and the development of draft performance measures to be used to assess potential consequences of different MPA network designs (scenarios); reviewing the preliminary information, data layers, and some initial Marxan outputs (e.g., heat maps); and reviewing the methods to be used for undertaking the Conservation Gaps Analysis. Review and discuss the tentative schedule and Advisory Committee workplans over the coming months to facilitate member participation and input at key times during the planning.
09/04/18	Commercial fishing sector	In-person meeting	Bilateral meeting Objective(s): <ul style="list-style-type: none"> Build common understanding of next steps towards the development of Network design scenario and confirm best approach for ongoing and meaningful engagement of the fishing industry in the planning process, including participation in OACs.

Date (DDMMYY)	Group/ Organization	Method	Subject / Objectives
16/05/18-17/05/18	North Vancouver Island OAC	In-person meeting	Objectives: <ul style="list-style-type: none"> Provide an update on work undertaken since the last meeting. Review and discuss the overall approach and schedule for developing a preliminary network scenario(s). Review and discuss outputs of spatial analyses and the process undertaken to identify areas for consideration. Gather initial feedback and additional information relating to the ecological, cultural, social, and economic values associated with these areas. Review and discuss the tentative schedule for next steps in the MPA network planning process and points of engagement.
23/05/18-24/05/18	Haida Gwaii Integrated Advisory Committee	In-person meeting	Same as above.
29/05/18-30/05/18	Central Coast OAC	In-person meeting	Same as above.
05/06/18-06/06/18	North Coast OAC	In-person meeting	Same as above.
11/06/18	Commercial fishing sector	In-person meeting	Fishing industry engagement in the Network planning process.
18/06/18	Bioregional OAC	In-person meeting	Objectives: <ul style="list-style-type: none"> Provide an update on work undertaken since the last meeting. Review and discuss the overall approach and schedule for developing a preliminary network scenario(s). Review and discuss outputs of spatial analyses, the process undertaken to identify areas for further consideration and sub-regional engagement on the areas. Review and discuss the tentative schedule for next steps in the MPA network planning process and points of engagement.
28/02/19	Integrated & Ocean Advisory Committees (all committees)	Webinar	Objectives: <ul style="list-style-type: none"> Provide an update on the current status of work and the proposed Network scenario development process. Introduce and clarify the emerging proposed Network scenario. Discuss and clarify the stakeholder review process.

Date (DDMMYY)	Group/ Organization	Method	Subject / Objectives
04/03/19	Public Recreation and Tourism sector	Meeting	Objectives: <ul style="list-style-type: none"> • Provide more details on the development of the proposed Network scenario. • Describe and discuss the proposed Network scenario and the associated management measures. • Discuss the preliminary evaluation of the draft scenario and how I/OAC will support a fuller assessment of the benefits and potential consequences; and • Discuss the review process and how I/OACs can be supported through the process.
05/03/19	All advisory committee members & alternates	Webinar	SeaSketch tutorial.
05/03/19	Conservation sector	Meeting	Objectives: <ul style="list-style-type: none"> • Provide more details on the development of the proposed Network scenario. • Describe and discuss the proposed Network scenario and the associated management measures. • Discuss the preliminary evaluation of the draft scenario and how I/OAC will support a fuller assessment of the benefits and potential consequences. • Discuss the review process and how I/OACs can be supported through the process.
06/03/19	Aquaculture sector, Energy sector	Meetings	Same as above
07/03/19	Forestry sector	Meeting	Same as above
08/03/19	Commercial fishing sector	Meeting	Same as above
11/03/19	Recreational fishing sector	Meeting	Same as above
11/03/19	All advisory committee members & alternates	Webinar	SeaSketch tutorial

Date (DDMMYY)	Group/ Organization	Method	Subject / Objectives
15/05/19-16/05/19	Central Coast OAC	Meeting	Objectives: <ul style="list-style-type: none"> • Clarify any needed details about the Network planning process, including the development of the proposed Network scenario. • Hear from committee members about the status of their reviews, and to share and compare members' initial thoughts on the proposed Network scenario. • Discuss opportunities to improve Network design. • Explore ways to improve how Network performance is assessed through refinements to, or development of new performance measures. • Discuss next steps and any additional information needed to support the I/OAC review process.
21/05/19-22/05/19	North Vancouver Island OAC	Meeting	Same as above
30/05/19-31/05/19	North Coast OAC	Meeting	Same as above
05/06/19-06/06/19	Haida Gwaii Integrated Advisory Committee	Meeting	Same as above
18/06/19-19/06/19	Bioregional OAC	Meeting	Same as above
14/06/19	Recreational fishing sector	Meeting	Objectives: <ul style="list-style-type: none"> • Review and discuss SFAB motions regarding the Network planning process. <ul style="list-style-type: none"> • State SFAB concerns regarding timelines, the process to date and opportunity to provide feedback. • Better understand the status of stakeholder engagement. <ul style="list-style-type: none"> • Determine the plans for community consultation. • Discuss data gaps and understand scenario and priority rationale <ul style="list-style-type: none"> • Socio-economic information and analysis. • June 30th information deadline. • Rockfish Conservation Area expansion concerns. • Better understand expectations and outcomes for the MPA Network (impacts and decisions due to the IUCN, percentage objectives relating to total area or activity restrictions). • Implications to Southern Coast Processes to come.

Date (DDMMYY)	Group/ Organization	Method	Subject / Objectives
04/10/19	Recreational fishing sector	Tele-conference	Engagement of the recreational fishing sector.
29/10/19	Commercial Fisheries Marine Planning Team (MPT) and B.C. Seafood Alliance – Commercial Fishing sector.	Tele-conference	Update from MPT and B.C. Seafood Alliance on commercial fishing sector engagement. Objective: <ul style="list-style-type: none"> MPT and B.C. Seafood Alliance have engaged with over 100 fishermen and are engaging coastal First Nations and other communities. They plan to update the MPATT in mid-November and again in December. The intention of the meetings is to ensure they are aligned with the MPATT process and do not deviate from the expectations and needs of MPATT.
12/11/19	MPT	Conf. call	Update on commercial fishing sector engagement. Objectives: <ul style="list-style-type: none"> MPT outlined the number of meetings they have had in multiple communities and with First Nations; outlined some of the emerging trends and themes coming out of meetings, specifically concerns with overcrowding in unprotected areas and impact on costs to fishermen.
20/11/19	MPT	Conf. call	Same as above. Objective: <ul style="list-style-type: none"> MPT updated MPATT on engagement with coastal commercial fisherman.
13/12/19	MPT	Conf. call	Technical Update. Objective: <ul style="list-style-type: none"> Discussion of SeaSketch; cultural and economic conservation priorities.
25/02/20	NSB MPA Network Advisory Forum	In-person meeting	Scenario input.
26/02/20	NSB MPA Network Advisory Forum	In-person meeting	Scenario input.
15/04/20	ENGOS	Presentation	Input on the Network Draft Scenario (full technical input from the ENGO sector; concerns/considerations regarding the MPA Network).
25/02/21	Chamber of Shipping, International Ship-Owners Alliance of Canada, and the Port of Prince Rupert	Meeting	Marine Transportation (engagement planning during the development of scenario 2 and public engagement).

Date (DDMMYY)	Group/ Organization	Method	Subject / Objectives
09/03/21	Bio-regional Orientation	Meeting	Draft Scenario 2. Objective: <ul style="list-style-type: none"> provide opportunity for sector representatives to ask MPATT about scenario 2.
10/03/21	Bio-regional Orientation	Meeting	Stakeholder engagement. Objective: <ul style="list-style-type: none"> Same as above.
16/03/21	Tourism sector	Meeting	Objectives: <ul style="list-style-type: none"> Receive sector-specific feedback on new zones, not part of scenario 1 and specific adjustments requiring stakeholder knowledge. Work with stakeholders on targeted issues identified by sectors. SEA scope and outline and sector-specific considerations.
17/03/21	Public recreation sector	Meeting	Stakeholder engagement.
23/03/21	Commercial fishing sector	Meeting	Stakeholder engagement
25/03/21	Aquaculture sector	Meeting	Stakeholder engagement.
26/03/21	Forestry sector	Meeting	Stakeholder engagement.
31/03/21	Recreational fishing sector	Meeting	Stakeholder engagement
1/03/21	Forestry sector	Meeting	Stakeholder engagement.
6/04/21	Commercial fishing sector	Meeting	Stakeholder engagement.
7/04/21	ENGOS	Meeting	Stakeholder engagement.
08/04/21	Hecate Strait / Queen Charlotte Sound MPA Workshop	Meeting	Stakeholder engagement.
12/04/21	Marine Transportation sector	Meeting	Stakeholder engagement.
13/04/21	Commercial fishing sector	Meeting	Socio-economic assessment (SEA). Objective: <ul style="list-style-type: none"> Present SEA scope, data gaps, and assumptions.

Date (DDMMYY)	Group/ Organization	Method	Subject / Objectives
14/04/21	Recreational fishing sector	Meeting	Stakeholder engagement.
15/04/21	Commercial fishing sector	Meeting	Stakeholder engagement.
16/04/21	Hecate Strait / Queen Charlotte Sound MPA Workshop	Meeting	Stakeholder engagement.
22/04/21	Marine Transportation	Meeting	Stakeholder engagement.
11/05/21	B.C. Tuna Fisherman's Association	Meeting	Stakeholder engagement.
17/06/21	Halibut Advisory Board	Meeting	Stakeholder engagement. Objective: • Discuss the MPA Network ahead of public engagement (Fall 2021).

4. Network Design Guidelines

Ecological Network Design Guidelines

1. **Represent and replicate targets for each class in at least one broad-scale comprehensive classification system across the planning area.**
 - 1.1. Use species-habitat classifications as biodiversity proxies, as appropriate.
 - 1.2. Use more than one comprehensive classification system at the same time, if possible, integrating systems as necessary.
2. **Identify a list of conservation priorities and set representation and replication targets using criteria that support the Network goals and objectives.**
 - 2.1. Include best available spatial information for identified conservation priorities that can be geographically demarcated in Network design.
 - 2.2. Consider whether the important ecological qualities of conservation priorities will benefit from, or be enhanced by, spatial protection measures in deciding whether or not to target individual conservation priorities (in whole or in part) in the MPA Network.
 - 2.3. Replicate conservation priorities across classes in the chosen classification system(s), at multiple scales.
 - 2.4. Vary representation targets for conservation priorities widely (<5 - 100%) based on rarity, vulnerability, importance, levels of data uncertainty and MPA protection levels applied.
 - 2.5. Apply lower representation targets for broad and widespread habitat classes, and higher targets for less widespread and more narrowly defined ones.
 - 2.6. Apply higher representation targets for rare, threatened, and endangered features and, where possible, apply a higher number of replicates than for common features.
 - 2.7. Increase representational targets when applying lower MPA protection levels as warranted and vice versa.
 - 2.8. Consider patch size and level of protection in determining replication targets.
 - 2.9. Ensure inclusion (in whole or in part) of ecologically and biologically significant areas (EBSAs) that are conservation priorities within the NSB MPA Network.
3. **Ensure MPAs with varying levels of protection are well-distributed throughout the planning region, and in both nearshore and offshore areas.**
 - 3.1. Apply size and spacing such that inshore sites can be smaller and closer together than offshore sites.
 - 3.2. Capture inshore-offshore gradients by orienting series of sites extending offshore from the shoreline/nearshore.

- 3.3. Measure distances between sites as the fish swims, not as the crow flies, when applying the spacing guidelines in confined fjords and passages.
 - 3.4. Consider expected effects of climate change on habitats and species in determining replication and representation of conservation priorities and distribution of MPAs to foster ecological resilience.
- 4. Vary MPA size and shape based on site location, protection level, and conservation objectives.**
- 4.1. Apply minimum size range of 5 – 150 km² for highly protected sites, with a preference to for a minimum size of 50 km².
 - 4.2. Ensure sites with lower protection levels are larger than highly protected sites, with minimum size range of 10 - 300 km² for IUCN category IV sites and minimum size range of 20 - 600 km² for IUCN category VI sites.
 - 4.3. Surround areas of high protection with a buffer area of lower protection, where appropriate.
 - 4.4. Consider differences in predominant geography, oceanography and landscape scale when determining MPA size and spacing.
 - 4.5. Apply a minimum patch size of 0.25 km² (25ha) for inclusion of fine-scale habitats (median habitat size <250 km²) in the MPA Network.
 - 4.6. Apply a minimum patch size of 2.5 km² (250ha) for inclusion of coarse-scale habitats (median habitat size > 250 km²) in the MPA Network.
 - 4.7. Protect discrete features and habitats and locally dominant ecological processes in their entirety, and not fragmented.
 - 4.8. Reflect known species' behaviours, such as aggregating, feeding or breeding, when determining MPA shape.
 - 4.9. Minimize edge-to-area ratio in MPA shape to maximize compactness, where practical.

Social, Economic, and Cultural Network Design Guidelines

- 5. Identify and consider the suite of human uses and values of the marine ecosystem in the context of rights holders, tenure holders, and user and interest groups.**
 - 5.1. Identify formal and informal governance mechanisms and linkages that structure access and use rights and privileges, and associated responsibilities.
 - 5.2. Consider the spatial and temporal distribution of human uses, values, rights, and privileges, inasmuch as available data allow.
 - 5.3. Identify the relative importance of different areas to users through measures appropriate to each activity.
 - 5.4. Characterize and consider the relative intensity and impact of human uses on ecosystem services and conservation priorities.

- 6. Aim to maximize positive and minimize negative ecological, cultural, social and economic impacts in MPA Network design and to distribute impacts as equitably as possible across communities and users.**
 - 6.1. Follow a precautionary approach to proposed management measures for each MPA to ensure that the protection is proportionate to the ecological needs, while minimising unnecessary exclusion.
 - 6.2. Identify proposed management measures for each site prior to detailed economic impact assessments.
 - 6.3. Assess benefits and costs of MPA options at sub-regional and regional scales as appropriate and take into consideration whenever feasible:
 - 6.3.1. how the places in question are valued by the public and stakeholders;
 - 6.3.2. direct and indirect (to the extent possible) impacts of the options;
 - 6.3.3. relative management costs and cost-effectiveness.

General Operating Network Design Guidelines

- 7. Establish clear and well-communicated lines of authority, responsibility and management between governments, government departments, and delivery agencies.**
 - 7.1. Ensure a shared understanding of roles, responsibilities and influence across process participants, including clarity on who the decision-makers are at each stage.
 - 7.2. Define and clearly communicate to all parties the role of stakeholders and their levels of influence in the process.
- 8. Implement common and accepted standards of transparency and accountability throughout the process.**
 - 8.1. Acknowledge and be open about the potential impacts and benefits of MPAs on different sectors.
 - 8.2. Engage with and gather relevant information for those sectors and user groups most likely to be impacted by MPA management measures, when developing stakeholder engagement, communication, and data gathering strategies.
- 9. Work with First Nations whose territories fall within the MPA Network planning region to develop appropriate and meaningful engagement approaches, which consider the relevant policies and protocols of the federal and provincial governments and the affected First Nation.**
 - 9.1. Include First Nations methodologies for MPA planning, implementation, management and governance as part of the planning schedule, where provided.
 - 9.2. Identify existing treaties and active treaty tables and be explicit about their influence on MPA planning.

- 9.3. Apply First Nations knowledge in the MPA Network selection process in conjunction with science in planning, implementation, and management.
 - 9.4. Prioritize culturally important areas for inclusion in MPAs, where these are brought forward by First Nations.
 - 9.5. Evaluate and consider conservation areas proposed through past and ongoing planning initiatives that First Nations have led or participated in.
 - 9.6. Consider options for First Nations to designate select MPAs, such as Indigenous and Community Conserved Areas (ICCAs) or Indigenous Protected Areas (IPAs) in their territories.
 - 9.7. Integrate federal and provincial laws and First Nations' laws and customs to manage and govern MPAs, where possible, recognizing that these will vary Nation by Nation.
- 10. Plan the MPA Network in the context of a wider suite of management approaches, considering other relevant management measures already in place and how the addition of MPAs in the region can maximize the effectiveness of existing measures, while minimizing operational redundancies or conflicts.**
- 10.1. Apply criteria to assess which existing management measures meet the Strategy definition of an MPA.
 - 10.2. Classify existing sites that meet the MPA Strategy definition into protection level categories, based on de facto management.
 - 10.3. Enhance the protection levels of existing sites with supplementary management measures to meet conservation objectives for the MPA Network, where appropriate.
- 11. Apply an iterative approach throughout the planning process, with ongoing assessments of any modifications made to spatial MPA Network configuration and proposed protection levels.**
- 12. Apply a set of protection levels, spanning from no-take reserves to sustainable use areas, when planning the spatial configuration of the MPA Network, based on the IUCN marine interpreted categories.**
- 13. Keep MPA boundaries simple to assist with compliance and enforcement.**
- 13.1. Use prominent coastal or land features in nearshore areas, where possible.
 - 13.2. Define using geographic coordinates including their map projection for offshore areas.
- 14. Monitor and evaluate the impacts of management actions. Use the results to improve effectiveness of individual MPAs and the Network.**
- 14.1. Select, analyze, and communicate indicators to measure MPA Network effectiveness.

5. Description of Current Activities in the NSB

Human use activity	Description
Aquaculture: finfish – net cages / closed pens	Commercial cultivation and harvest of finfish. Culture activity occurs on the surface or within the water column using net cages anchored to the seabed or closed pens. Includes associated facilities and infrastructure such as anchor blocks, feed barges and sheds, accommodation, navigational markers, net storage, and mooring lines.
Aquaculture: shellfish – beach seeding	Commercial cultivation and harvesting of marine shellfish. Culture activity occurs on the sea floor, typically between the high-water mark and the low-water mark in a natural or manufactured environment. Includes associated operations, facilities, and infrastructure such as accommodation, rock walls, fencing, and anti-predator devices.
Aquaculture: shellfish – off bottom	Commercial cultivation and harvesting of marine shellfish. Culture activity occurs on the surface or within the water column using grow-out structures such as bags, nets, strings, trays, or tubes suspended from longlines or rafts anchored to the seabed. Includes associated operations, facilities, and infrastructure.
Aquaculture: marine plant	Commercial cultivation and harvest of marine plants. Culture activity occurs on the surface or within the water column using longlines or rafts anchored to the seabed. Includes associated operations, facilities, and infrastructure.
Commercial wild marine plant harvest	Commercial harvest of wild marine plants. Harvest activity occurs by hand on the surface of the water or in the upper intertidal. Includes associated operations (e.g., boating).
Commercial fishing – bottom longline / demersal hook and line	Commercial fishing for various groundfish (e.g., halibut, sablefish) and rockfish species using bottom longline gear. This category also includes the demersal hook and line gang-troll gear employed by the directed lingcod fishery.
Commercial fishing – bottom trawling	Commercial fishing for groundfish species using bottom trawl gear. In B.C., Pacific groundfish are caught using an otter trawl that is pulled along or near the ocean floor.
Commercial fishing – shrimp trawling	Commercial fishing for shrimp species using trawl gear. In B.C., shrimp harvested by trawl are caught using a beam or otter trawl that is pulled along or near the ocean floor.
Commercial fishing – dive with pressure hose	Commercial dive fishing for geoduck, and to a much lesser degree horse clams, using high-pressure water delivered through a nozzle, known as a stinger.

Human use activity	Description
Commercial fishing – invertebrate trap	Commercial fishing for invertebrates (crab, prawn, and shrimp species) using traps or ring nets. Dungeness crabs are the most commonly targeted crab species, while spot prawns are the primary targeted prawn species with some effort focused on humpback and coonstripe shrimp. Crab traps can be set on single lines or on ground lines containing multiple traps. Prawn and shrimp traps are typically set using ground lines with multiple traps.
Commercial fishing – sablefish trap	Commercial fishing for sablefish using traps, which are typically set using groundlines containing multiple traps.
Commercial fishing – intertidal hand picking/digging	Commercial harvest of wild stocks of inter-tidal shellfish such as razor clams.
Commercial fishing – gill nets	Commercial fishing using gillnets, targeting either herring or salmon.
Commercial fishing – pelagic and midwater trawls	Commercial fishing for fish species using pelagic or midwater trawl gear that is pulled through the water column.
Commercial fishing – purse seine	Commercial fishing using purse seine nets, targeting either herring or salmon.
Commercial fishing – salmon troll	Commercial fishing using pelagic hook and line trolling gear, targeting salmon.
Commercial fishing – tuna troll	Commercial fishing using pelagic/surface hook and line trolling gear, targeting albacore tuna.
Commercial fishing – dive, handpick	Commercial dive fishing for red and green sea urchin and/or giant Pacific sea cucumber, harvested by removing the animals from the substrate by hand.
Recreational fishing – hook and line	Recreational fishing using hook and line gear, typically targeting groundfish and rockfish. Applies to independent anglers and those accessing commercial service providers (e.g., charters, lodges).
Recreational fishing – invertebrate trap	Recreational fishing using trap gear, typically targeting crab, prawn, and shrimp species. Applies to independent anglers and those accessing commercial service providers (e.g., charters, lodges).
Recreational fishing – intertidal hand picking/digging	Recreational harvest in the inter-tidal zone, typically targeting bivalves (e.g., butter clams, cockles, razor clams).
Recreational fishing – trolling/rod and reel	Recreational fishing by trolling using rod and reel gear, typically targeting salmon species. Applies to independent anglers and those accessing commercial service providers (e.g., charters, lodges).
Recreational fishing – dive fishing	Recreational dive fishing where species (e.g., red sea urchin, scallops) are harvested by removing the animals from the substrate by hand.
Forestry – log storage and handling	Marine operations associated with deposition, sorting, and processing of harvested timber. Includes related facilities and infrastructure, log dumping, log sorts and physical structures such as anchor devices, fill, pilings, permanent ways or ramps, and accommodation. Can include helicopter log drop sites and related infrastructure. Does not include log transportation.

Human use activity	Description
Industrial projects	Broad category of industrial activities including but not limited to dredging, underwater pipelines, seismic surveys, exploratory drilling, extraction of oil and gas, dumping of dredged soils and other materials, desalination, industrial water use, near water construction, in-water construction, construction of marine infrastructure, and tidal barrage energy.
Marine transportation – large vessel traffic	Use of marine space by marine vessel traffic for a range of purposes including for the transportation of goods (e.g., bulk carriers, container ships, tugs and barge), transportation of passengers (cruise ships, ferries), fishing activity, research, government (e.g., military, search and rescue) and pleasure (yacht, sailing vessels). Includes vessels greater than 150 gross tonnage.
Renewable energy – tidal stream	Renewable energy generated via tidal current/stream energy capture technology. Includes facilities and infrastructure such as generation structures fixed or anchored to the seabed or foreshore. Does not include power transmission cables (see Underwater infrastructure – submarine cables). Does not include tidal barrage.
Renewable energy – wave	Renewable energy generated via wave energy capture technology. Includes facilities and infrastructure such as generation structures fixed or anchored to the seabed or foreshore. Does not include power transmission cables (see Underwater infrastructure – submarine cables).
Renewable energy – wave	Renewable energy generated via wave energy capture technology. Includes facilities and infrastructure such as generation structures fixed or anchored to the seabed or foreshore. Does not include power transmission cables (see Underwater infrastructure – submarine cables).
Recreation – boat based commercial wildlife viewing	Non-extractive commercial recreation activity focused on viewing wildlife involving a paid service component (e.g., whale watching, bear viewing).
Recreation – motorized recreational boating	Recreational activity involving the use of motorized marine vessels (e.g., recreational fishing boats), including anchoring.
Recreation – non-motorized recreational boating	Recreational activity involving the use of non-motorized marine vessels (e.g., kayaks).
Recreation – diving (SCUBA) and snorkeling	Non-extractive recreational activity focused on viewing underwater marine environments using snorkeling or dive equipment.
Recreation – intertidal exploration	Non-extractive recreation activity focused on the exploration and viewing of intertidal areas, the seabed that lies between the high-water mark and the low-water mark.
Underwater infrastructure – submarine cables	Submarine cables used to carry electricity or telecommunication signals. Generally, on or under the seabed or anchored to the seabed but may also be suspended in the water column. Includes associated infrastructure and rights-of-way.

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