

HAIDA GWAI DRAFT MARINE PLAN Version 2.1

April 2, 2014





March 31, 2014

Dear reader,

On behalf of the Marine Working Group for the Marine Planning Partnership for the North Pacific Coast, we are pleased to present the Haida Gwaii Draft Marine Plan for your review and comments.

The draft plan was prepared by the Council of the Haida Nation and the Government of British Columbia, as represented by the Ministry of Forests, Lands and Natural Resource Operations, and reflects substantive input from the Haida Marine Work Group and the Haida Gwaii Marine Advisory Committee.

The draft plan outlines the vision, objectives and strategies for management of marine uses and activities within the plan area. These include marine protection, economic and community development, and various uses falling under the jurisdiction and management of the provincial government and/or the Haida Nation. Examples are tenures for log handling, aquaculture sites, energy development, and commercial recreation and tourism. The plan establishes zones to provide more detailed direction on recommended uses and activities.

The content of the plan is relevant for matters within the constitutional authority of the Government of British Columbia and Council of Haida Nation, pursuant to Canada's Constitution and the Constitution of the Haida Nation respectively. This draft plan is focused on the marine areas and uses where, as between Government of British Columbia and Canada, the government of British Columbia has legal jurisdiction and regulatory authority, namely the foreshore (i.e., the intertidal zone), coastal "inland waters" on the outer coast, and the lands covered by these waters. The Haida Nation, under the authority of the *Haida Constitution*, is responsible for ensuring that natural and cultural heritage of Haida territory is passed on to future generations.

This draft plan is not intended to address management of uses and activities that the province considers to be federal government jurisdiction. However, where there is overlap or shared jurisdiction, ecosystem-based management priorities or marine spatial planning priorities, these topics are discussed. The intent is that issues requiring federal government involvement would be subject to consultations with the federal government.

Federal government departments will have an opportunity to provide input on activities and uses not covered in this plan through other marine planning processes.

The Government of Canada has had limited involvement in the development of this draft plan and the draft plan does not purport to represent the interests or mandate of the Government of Canada or its

individual departments.

The plan does not cover upland areas that are generally addressed through land use plans. It does, however, consider the uses, plans, zones, tenures and legal designations that are in place on the land adjacent to marine areas and the seabed.

While the draft plan has benefitted from significant input from the stakeholder advisory committee, we are now seeking broader public input and support prior to formal endorsement.

The review includes a series of public meetings and opportunities to provide comments online and by email.

The formal public review period ends on May 7, 2014.

To learn more about the draft marine plan and how to provide comments, please go to: www.mappocean.org and www.haidanation.ca

Thank you for your time and consideration in reviewing the draft plan.

Sincerely,

MaPP Marine Working Group



Trevor Russ (CHN)



Allan Lidstone (BC)

ACKNOWLEDGEMENTS

- [To be developed]

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PURPOSE OF DOCUMENT

The purpose of the Haida Gwaii Marine Plan is to identify acceptable marine uses that support sustainable communities while protecting and, where necessary, restoring marine ecosystems. Furthermore, the content of the plan is relevant for matters within the constitutional authority of the Government of British Columbia and Council of Haida Nation, pursuant to Canada's Constitution and the Constitution of the Haida Nation respectively. The Marine Plan is the result of a cooperative planning process led by the Haida Nation and the Province of BC on Haida Gwaii as part of the broader First Nations-BC Marine Planning Partnership for the North Pacific Coast (MaPP) initiative.

The Marine Plan will complement the implementation of the 2007 Strategic Land Use Agreement between the Haida Nation and Province of BC. The plan reflects a shared perspective on how to maintain and, where needed, restore a healthy marine environment and a sustainable marine economy on Haida Gwaii.

The Haida Nation and the Province of British Columbia recognize that implementation of some of the objectives and strategies as well as the spatial Protection Management Zone (PMZ) candidates in this document will require the support of others through various processes. Many of the strategies reference working with other agencies and linking with other relevant processes to ensure the goals and objectives of the Haida Gwaii Marine Plan are achieved.

DISCLAIMER

This plan is not legally binding and does not create legally enforceable rights between British Columbia or the Haida Nation. This plan is not a treaty or land claims agreement within the meaning of sections 25 and 35 of the Canadian *Constitution Act, 1982*.

This plan does not create, define, evidence, amend, recognize, affirm or deny any Aboriginal rights, Aboriginal title and/or treaty rights or Crown title and rights, and is not evidence of the nature, scope or extent of any Aboriginal rights, Aboriginal title or Crown title and rights.

This plan does not limit or prejudice the positions British Columbia or the Haida Nation may take in any negotiations or legal or administrative proceedings.

Nothing in this plan constitutes an admission of fact or liability.

Nothing in this plan alters, defines, fetters or limits or shall be deemed to alter, define, fetter or limit the jurisdiction, authority, obligations or responsibilities of British Columbia or the Haida Nation.

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EXECUTIVE SUMMARY

[To be developed]

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Acronyms

AFS	Aboriginal Fisheries Strategy
AMB	Archipelago Management Board
BCMCA	BC Marine Conservation Analysis
CFN-GBI	Coastal First Nations – Great Bear Initiative
CHN	Council of the Haida Nation
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
DFO	Fisheries and Oceans Canada (formerly Department of Fisheries and Oceans)
EBM	Ecosystem-Based Management
GMD	General Management Direction
GMZ	General Management Zone
HMWG	Haida Marine Work Group
HMTK	Haida marine traditional knowledge
HOTT	Haida Oceans Technical Team
IUCN	International Union for Conservation of Nature
LNG	Liquid natural gas
MaPP	Marine Planning Partnership
MPA	Marine protected area
MPMIC	Marine Plan Monitoring and Implementation Committee
PICFI	Pacific Integrated Commercial Fisheries Initiative
PMZ	Protection Management Zone
PNCIMA	Pacific North Coast Integrated Management Area
RapFISH	Rapid Appraisal for Fisheries
RCA	Rockfish Conservation Area
SARA	Species at Risk Act
SMZ	Special Management Zone
SK-B MPA	S <u>G</u> aan K <u>i</u> ngh <u>l</u> as – Bowie Seamount Marine Protected Area

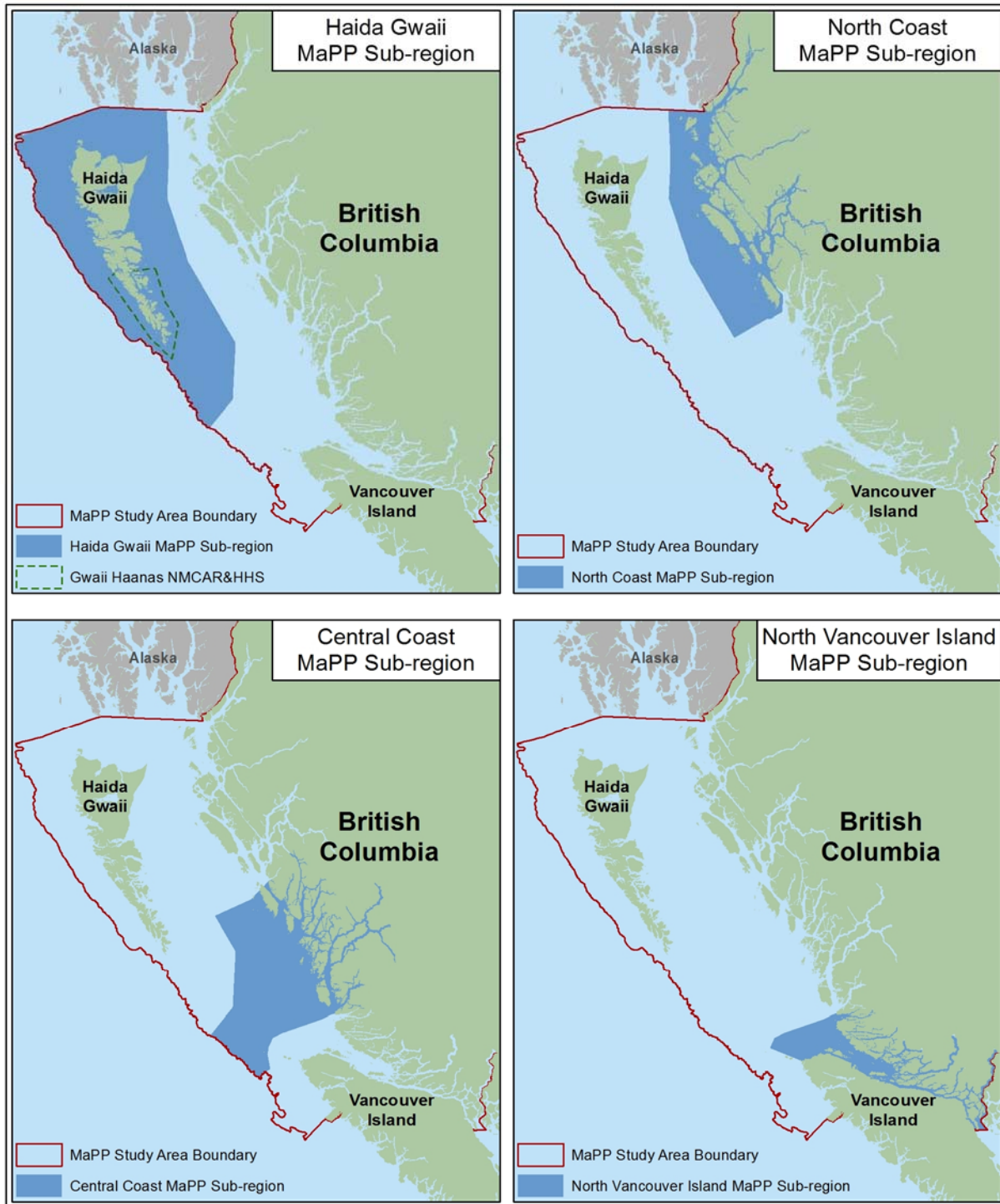
2 **1. INTRODUCTION**

3 **1.1 Background on the Marine Planning Partnership for the North Pacific Coast**

4 The Marine Planning Partnership for the North Pacific Coast (MaPP), which was launched in November
5 2011, is a collaborative government-to-government arrangement between the Province of British
6 Columbia, the Coastal First Nations-Great Bear Initiative, the North Coast-Skeena First Nations
7 Stewardship Society, and the Nanwakolas Council. The Council of the Haida Nation (CHN) is a member of
8 Coastal First Nations-Great Bear Initiative.

9 Through MaPP, the Provincial and First Nations governments are undertaking collaborative coastal and
10 marine planning as stated in the *Letter of Intent (LOI) on Collaborative Coastal and Marine Planning in
11 the Pacific North Coast* (Appendix 2), signed by the MaPP partners. The LOI also establishes a bilateral
12 governance arrangement that operates at three levels through an Executive Committee, a Working
13 Group and sub-regional Technical Teams.

14 Marine plans were developed with stakeholder input for the sub-regions of Haida Gwaii, North Coast,
15 Central Coast and Northern Vancouver Island (Figure 1-1). The Haida Gwaii draft Marine Plan has been
16 jointly developed by CHN and the Province of BC. It is intended that each plan will be accompanied by
17 an Implementation Agreement that will help to define how the planning direction within the plans will
18 be realized (see also Section 9).



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Figure 1-1. Marine Planning Partnership of the North Pacific Coast (MaPP) sub-regional planning boundaries

23 1.2 Jurisdictional Limitations

24 The *Constitution Act* (1867) defines the federal-provincial distribution of legislative powers in Canada
25 (also known as the division of powers), including the scope of the power of the federal parliament of
26 Canada and the powers of each individual provincial legislature or assembly. Without formal federal
27 government involvement in the MaPP planning process, this division of power limits the Province from
28 endorsing outcomes that it considers to be the jurisdiction and mandate of the federal government
29 under the *Constitution Act*. However, the Province is able to support and implement components of the
30 Plan where, as between BC and Canada, the Province has some jurisdiction.

31 A Supreme Court of Canada decision in 1984 (the Strait of Georgia Reference) held that, when British
32 Columbia entered Confederation in 1871, the Province consisted of all British territories, including dry
33 land, coastal straits and submerged lands. Thus as between British Columbia and Canada, British
34 Columbia owns the waters and submerged lands of the Strait of Juan de Fuca, the Strait of Georgia,
35 Johnstone Strait and Queen Charlotte Strait and the waters and submerged lands between major
36 headlands (i.e., bays, estuaries, and fjords).

37 Furthermore, the Haida Gwaii Marine Plan covers a major portion of the territory of the Haida Nation.
38 The *Haida Constitution* holds the Haida Nation responsible for ensuring that natural and cultural
39 heritage of Haida territory is passed on to future generations. Similar to land use plans, the Marine Plan
40 seeks to develop a framework for joint or shared management of marine and coastal areas around
41 Haida Gwaii.

42 Objectives and strategies that fall outside of provincial jurisdiction and mandate (as set out in the
43 *Constitution Act* (1867)) are outlined in Appendix 1. Elements of this Marine Plan that relate to the
44 Crown are subject to the authority of the ministers of the governments of Canada and British Columbia,
45 as set out by Canadian law where applicable. The plan does not provide, imply direction or make
46 recommendations of matters that the Province believes are solely within federal jurisdiction. Appendix 1
47 also provides additional context on how the Haida Nation, the federal government and others may work
48 together to achieve these objectives and strategies through separate or future collaborative processes.

49 This Plan and its supporting documentation and Appendices do not in any way define or limit the title
50 and rights of the Haida Nation or British Columbia, and will be without prejudice to the positions of the
51 Haida Nation and British Columbia with respect to the rights and title of the Haida Nation and British
52 Columbia in regard to current or future litigation or negotiations.

53 1.3 Issues not Addressed in Marine Plan

54 The main body of the Haida Gwaii draft Marine Plan describes areas of agreement between the Haida
55 Nation and Province of BC. There are, however, a number of areas of disagreement between the parties
56 and discussions are ongoing to resolve these issues.

57 There are five general areas where the Haida Nation and Province of BC currently have different views:

- 58 1. aspects of the recreational fishing industry (including need for limits on the number of fishing
59 lodges, charter operators and/or client beds);

- 60 2. the possibility of future salmon aquaculture development through tenures in Haida Gwaii
61 waters;
62 3. offshore oil and gas development;
63 4. presence of oil tankers in Haida Gwaii waters and increased presence of large vessel traffic in
64 Haida Gwaii waters; and
65 5. Haida traditional use, including sale and trade of fish for economic purposes.

66 The above are important issues related to Haida Gwaii marine planning and management and both
67 governments recognize the importance of reconciling areas of disagreement wherever possible. In the
68 interim, both parties have supported moving forward on the areas of agreement described in this draft
69 document.

70 **1.4 Concurrent Planning Processes in**
71 **Haida Gwaii**

72 The Haida Gwaii Marine Plan is a key
73 component in the larger planning picture on the
74 BC north coast. The Haida Nation, Province of
75 BC, and Government of Canada are engaged in
76 four marine planning processes around Haida
77 Gwaii, several of which overlap to a greater or
78 lesser extent (Table 1-1). Each process involves
79 government-to-government cooperative
80 partnerships, with different partners (and
81 representative agencies) depending on the
82 scope of respective initiatives.

83 For each process individual plans are being
84 developed; however all partners are committed
85 to developing plans that align with and
86 complement each other.

87 A Letter of Intent was signed between DFO,
88 Coastal First Nations-Great Bear Initiative, and the North Coast Skeena Stewardship Society in 2012
89 regarding the re-engagement of member First Nations, including the CHN, in the PNCIMA Initiative.
90 Since that time, member First Nations have worked in partnership with Canada (DFO) and BC to
91 complete the PNCIMA integrated management plan.

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***COORDINATING MARINE PLANNING AROUND
HAIDA GWAII***

The CHN, Government of Canada and BC have agreed in principle to coordinate marine planning around the archipelago. This is achieved through high-level coordination at a Haida Gwaii Marine Steering Committee where representatives of all three governments have committed to regular communication, allowing for increased understanding across planning initiatives. A Marine Coordinating Committee provides technical support for marine planning initiatives, including providing advice and information to each other on individual agency mandates, policies and regulations.

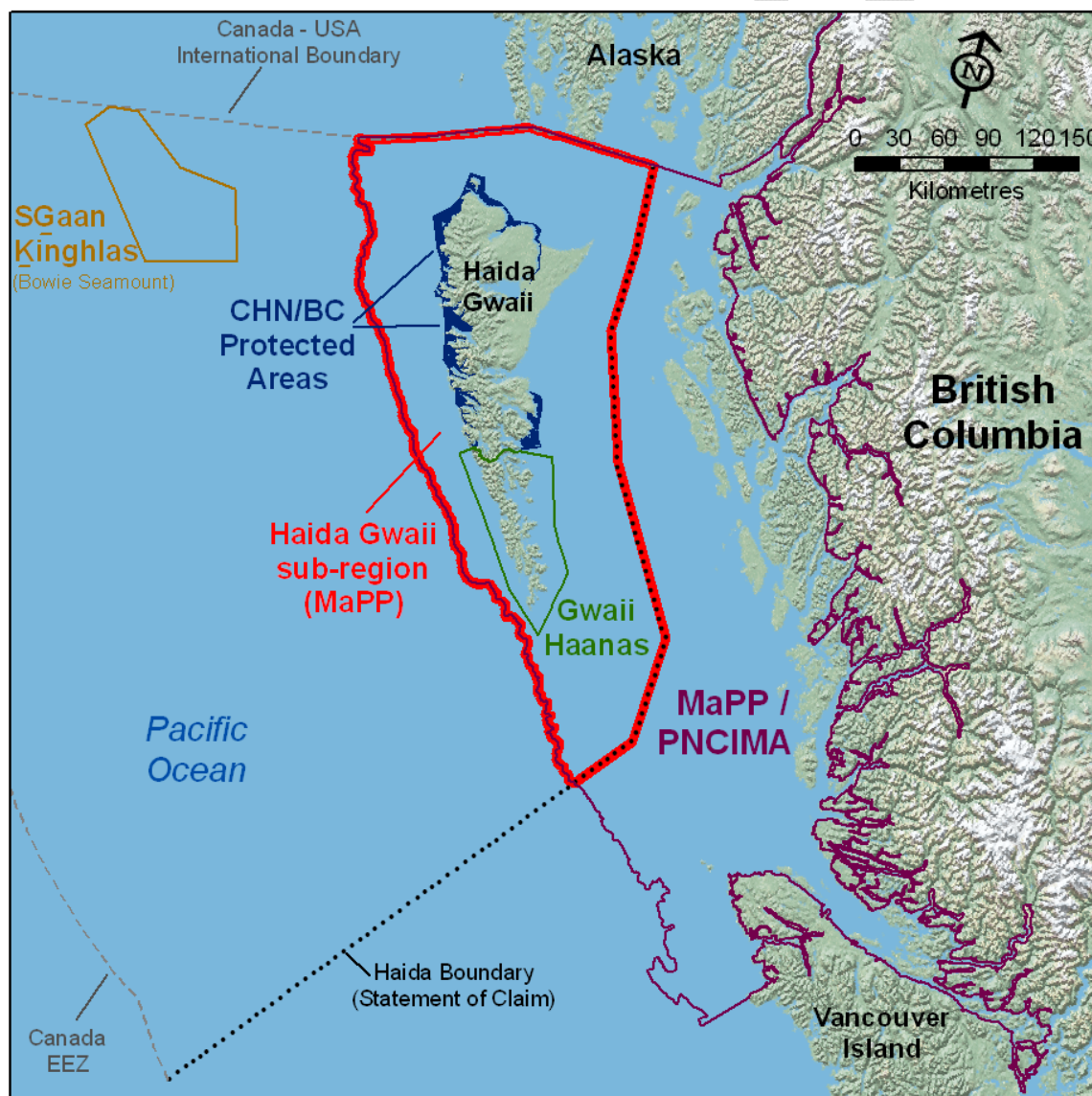
95 **Table 1-1. Summary of Concurrent Marine Planning Processes and Expected Outputs**

PROCESS	DESCRIPTION	PARTNERS	EXPECTED OUTPUT(S)
Pacific North Coast Integrated Management Area (PNCIMA)	The PNCIMA Initiative is focused on the development of an ecosystem-based framework for the area, and is intended to produce high-level marine planning goals, objectives and strategies at a broad regional scale. For more information see pncima.org	First Nations-BC-Canada (DFO)	PNCIMA Integrated Marine Use Plan
Marine Planning Partnership (MaPP)	MaPP sub-regional plans will provide operational and localized direction for marine uses, including general management direction for marine activities and a spatial management plan. For more information see mappocean.org and http://www.haidanation.ca/ . Haida Gwaii also includes terrestrial protected areas with a marine component jointly established by CHN and BC. The Haida Gwaii draft Marine Plan provides additional direction or zoning for these areas.	Haida Nation/Other First Nations-BC	4 sub-regional plans (includes Haida Gwaii Marine Plan) and other regional planning products
Gwaii Haanas National Park Reserve, National Marine Conservation Area and Haida Heritage Site (“Gwaii Haanas”)	Since 2010, Gwaii Haanas has operated under an interim marine management plan, and a final integrated land and sea management plan will be completed by 2015. The final plan will outline what activities will be allowed where and at what times of the year. The plan will also map out marine ecosystem monitoring and how change will be measured. For more information see pc.gc.ca/pn-np/bc/gwaiihaanas/index.aspx	Haida Nation-Canada (DFO/Parks Canada) (through Archipelago Management Board (AMB))	Gwaii Haanas Integrated Management Plan
SGaan Kinghlas – Bowie Seamount Marine Protected Area (MPA)	The SK-B MPA Management Plan is being cooperatively developed by the CHN and DFO. The plan will identify conservation objectives and define the scope and management of marine activities within the MPA. For more information see pac.dfo-mpo.gc.ca/oceans/protection/mpa-zpm/bowie/index-eng.htm	Haida Nation-Canada (DFO)	SGaan Kinghlas-Bowie Seamount MPA Management Plan

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98 Related to all of the aforementioned processes, the Government of Canada and the Province of BC have
99 made a commitment to develop a network of marine protected areas (MPAs) on the Pacific Coast of
100 Canada. In May 2011 Canada and BC released the *Canada – BC Marine Protected Area Network Strategy*
101 *[draft]* which outlines the vision, goals and objectives of the Pacific MPA network to help guide MPA
102 establishment and regional planning initiatives. The Northern Shelf Bioregion (which shares the same
103 footprint as PNCIMA) is one of the pilot areas for the development of a MPA network on the Pacific
104 Coast. The PNCIMA, MaPP, Gwaii Haanas, and SGaan Kinghlas-Bowie Seamount planning processes are
105 all anticipated to contribute to the MPA network.

106 For a bird's eye view of the different areas, Figure 2-1 shows the various marine planning initiatives
107 currently underway in the waters around Haida Gwaii.



108 **Figure 1-2. Marine planning processes currently underway around Haida Gwaii**

109 **2. PLANNING PROCESS, APPROACH AND INFORMATION SOURCES**

110 **2.1 Planning Process**

111 [This Section will be updated following completion of the Haida Gwaii planning process]

112 The MaPP process for Haida Gwaii is co-lead by the CHN and the Province of BC. The Haida Gwaii draft
113 Marine Plan has been jointly developed by both parties based on the input of the Haida community and
114 other island residents, stakeholders and the broader public. In this document, the word Haida is used to
115 refer to all people of Haida ancestry.

116 This process was formalized by the MaPP *Letter of Intent* (Appendix 2) signed in November 2012 that
117 established a bilateral governance structure. At the sub-regional level, the Haida Gwaii planning process
118 is based on both previous and ongoing work by the CHN, the Province of BC, and affected stakeholders,
119 and has been supported by CHN and provincial technical staff.

120 **HAIDA ENGAGEMENT**

121 In 2006, the CHN established the Haida Marine Work Group and charged them with the task of
122 identifying Haida priorities for development of a Haida Gwaii Marine Plan. The Work Group has
123 representatives of the CHN, Hereditary Chiefs, Old Massett Village Council, Skidegate Band Council, and
124 members of the Haida public. Since 2006 the Work Group has met over 40 times to review documents,
125 discuss issues and provide input to the marine planning processes on Haida Gwaii.

126 The Work Group is supported by the Haida Oceans Technical Team, including a project manager,
127 biologist, socio-economic planner and GIS analyst. With the assistance of the Haida Oceans Technical
128 Team, the Work Group provided oversight and direction to the *Haida Marine Traditional Knowledge*
129 *Study* and the *Haida Gwaii Marine Market Sector Analysis*, both key information sources that fill critical
130 data gaps for marine planning around Haida Gwaii. The Work Group and technical staff also provided
131 updates to the Haida community at public meetings in Old Massett and Skidegate and through
132 presentations at CHN meetings and the annual House of Assembly. A list of meetings with the Work
133 Group and Haida communities is provided in Appendix 3.

134 **STAKEHOLDER ENGAGEMENT**

135 The Haida Gwaii Marine Advisory Committee was established in September 2011 to provide advice to
136 the CHN and Province of British Columbia on the development of the draft Marine Plan. The Marine
137 Advisory Committee is made up of members with a range of backgrounds, including both local and non-
138 local expertise. Members of the Marine Advisory Committee are not representative of specific interest
139 groups; rather they were selected based on their collective knowledge and experience, which included
140 marine tourism, marine conservation, marine science, communities, commercial fishing, recreational
141 fishing, seafood processing and marine transportation. Over the course of the planning process, the
142 Marine Advisory Committee met 12 times to review documents and provide valuable input into the
143 draft Marine Plan.

144 In addition to the contributions of the Marine Advisory Committee, information meetings with key

145 stakeholders helped inform the draft Plan. These meetings included representatives of environmental
146 non-government organizations, commercial fishing associations, recreational fishing bodies, local
147 government, marine tourism representatives and shellfish aquaculture operators. A list of meetings
148 with the Marine Advisory Committee and stakeholders is provided in Appendix 3.

149 Stakeholder engagement is a key aspect of the Haida Gwaii marine planning process. Both the Marine
150 Advisory Committee and bilateral meetings with stakeholders served to inform the content and
151 direction of the plan. This input was provided at several stages during the process (plan development,
152 plan consultation, plan review) and the resulting Haida Gwaii draft Marine Plan is a reflection of
153 feedback received by the CHN and Province of BC.

154 [Placeholder for description of broader stakeholder consultation process]

155 LOCAL COMMUNITIES & PUBLIC ENGAGEMENT

156 Prior to the initiation of the MaPP process, both the CHN and the Province of BC participated in several
157 PNCIMA public forums that provided opportunities to update, and seek input from, Haida Gwaii
158 residents and the general public on marine planning work being done around Haida Gwaii. In addition,
159 the CHN organized and hosted a three day public forum called *Gaaysiigang: an ocean forum for Haida*
160 *Gwaii* in January 2009. Presentations by invited and local speakers to over 200 participants at the Haida
161 Heritage Centre at Kay Llnagaay in Skidegate highlighted the importance of marine planning and ongoing
162 marine initiatives around Haida Gwaii. A list of meetings with island communities and members of the
163 public is provided in Appendix 3.

164 Other tools and strategies for engaging local communities on Haida Gwaii included: direct meetings with
165 community leaders and other stakeholders; communication through local newspaper articles, brochures
166 and on-line (MaPP and CHN websites); and participation and distribution of outreach material at
167 community events.

168 [Placeholder for description of public consultation process]

169 2.2 Ecosystem-based Management (EBM)

170 Ecosystem-based Management (EBM) is a fairly new management regime. In the past, management of
171 natural resources has been focused on single species management systems. EBM incorporates the
172 principles of ecosystem integrity, resilience, and adaptive management into decision-making, allowing
173 managers to be responsive to ecosystem changes and establishing mechanisms for re-evaluation and
174 redesign of plans as required.

175 One of the key outputs of the MaPP process is an EBM framework to support management of existing
176 and new marine activities, including the development of EBM indicators and targets. The MaPP EBM
177 framework is built upon ecological integrity, human wellbeing, and governance and collaborative
178 management, all of which are to be considered in regional and sub-regional planning.

179 The application of EBM is not new in Haida Gwaii. Signed in September 2007, the *Haida Gwaii Strategic*
180 *Land Use Agreement* (SLUA) between the CHN and the Province utilizes EBM as the basis for sustainable

181 management of the Haida Gwaii terrestrial environment. Building on this foundation, in 2007, the Haida
182 Marine Work Group (HMWG) defined EBM for Haida Gwaii marine planning as follows:

183 *Respect is the foundation of ecosystem-based management. It acknowledges that the land, sea,*
184 *air and all living things, including the human community, are interconnected and that we have*
185 *the responsibility to sustain and restore balance and harmony.*

186 This EBM definition was subsequently endorsed by the Haida Gwaii Marine Advisory Committee and has
187 been carried forward into the MaPP process. In 2012, the PNCIMA Initiative also defined EBM as part of
188 a broader EBM framework to support marine planning and management on the Pacific north coast:

189 *“Ecosystem-based management is an adaptive approach to managing human activities that*
190 *seeks to ensure the coexistence of healthy, fully functioning ecosystems and human*
191 *communities. The intent is to maintain those spatial and temporal characteristics of ecosystems*
192 *such that component species and ecological processes can be sustained, and human well-being*
193 *supported and improved.”*

194 The two definitions of EBM are consistent. They promote an integrated approach to management that
195 takes into account the ecology of the system and interactions with cultural and socioeconomic realities.

196 The PNCIMA process has also defined an EBM framework for the entire Pacific North Coast, including
197 identification of EBM assumptions, principles and goals, and high-level strategic objectives and
198 strategies. The MaPP process nests within the PNCIMA process, and the Haida Gwaii Marine Plan nests
199 within MaPP. On Haida Gwaii, application of EBM is achieved by ensuring integrated planning across all
200 these scales. In this Plan, the objectives (or “what must be done”) and strategies (“how they can be
201 achieved”) in Sections 6 and 7 reflect many of the PNCIMA objectives and strategies but in a more
202 applied, Haida Gwaii context. Application of EBM in the Haida Gwaii Marine Plan also required:

- 203 • consideration of ecological, cultural, social, economic and political values;
- 204 • understanding of ecological, cultural, social, economic and political interactions;
- 205 • evaluation of activities and impacts at multiple scales;
- 206 • balancing marine protection with resource development opportunities; and
- 207 • working to achieve effective collaborative inter-government and agency management.

208 In the context of the Haida Gwaii Marine Plan, work has also commenced with other marine planning
209 partners, including Gwaii Haanas/Parks Canada, and DFO. Together all parties will determine how to
210 apply the ecological, cultural, social, economic and political aspects of marine EBM at multiple scales:
211 Gwaii Haanas and S^Gaan K^Ingh^Las-Bowie Seamount specifically, Haida Gwaii generally, and the Pacific
212 North Coast broadly (see also Table 1-1).

213

214

215 2.3 Information Sources

216 The development of the Haida Gwaii draft Marine Plan has been informed by multiple data sources,
217 compiled by the Haida Oceans Technical Team and the Province of BC, to support the work of the Haida
218 Marine Work Group, Haida Gwaii Marine Advisory Committee, and Marine Planning Partnership. In
219 general, planning was informed by the following three types of information:

- 220 • **Ecological:** large and small scale datasets and reports identifying nearshore and offshore
221 ecological values in the marine environment (*examples: oceanographic regions, ecosections,*
222 *cold water corals and sponges, seal and sea-lion haulouts, nesting seabird colony sites*)
- 223 • **Cultural:** information and datasets identifying areas of importance and both current and historic
224 use and stewardship for the Haida Nation and others (*examples: Haida Marine Traditional*
225 *Knowledge database, archeological sites, historical whaling stations, ship wrecks etc*);
- 226 • **Social and Economic:** information and datasets identifying areas of importance and use for a
227 variety of marine activities (*examples: commercial fishery catch and effort data, sport fishing*
228 *lodge sites and use areas, vessel traffic information, various tenure types - shellfish aquaculture,*
229 *log handling/storage, alternative energy etc*)

230 Principal data sources include the CHN, Province of BC, DFO, Parks Canada/Gwaii Haanas and the BC
231 Marine Conservation Analysis (BCMCA) project. A number of studies and workshops have been
232 conducted by the Haida Nation to further inform marine planning discussions in and around Haida
233 Gwaii. MaPP has also compiled information and produced new studies, including the *Haida Gwaii*
234 *Marine Current Conditions and Trends Report*, that have been incorporated into the Haida Gwaii
235 planning process and resulting draft Marine Plan.

236 For a complete list of spatial data sources, see Appendix 4. For all other sources of information, see
237 References.

238

239

240 3. HAIDA GWAII ETHICS, VALUES, MARINE VISION AND GOALS

241 The Haida Marine Work Group described Haida ethics and values, drafted a marine vision with
242 associated goals, objectives and strategies, and identified marine areas with significant ecological and
243 cultural values. Recommendations from the Work Group were accepted by the CHN in 2011 and
244 reviewed and accepted by the Province of BC in 2012. They were also shared with the Haida Gwaii
245 Marine Advisory Committee for input. Although they are drawn from Haida culture, these ethics and
246 values are applied to all of Haida Gwaii, with support confirmed by local communities, stakeholders, and
247 governments through the Haida Gwaii Marine Plan process.

248 3.1 Haida Gwaii Ethics and Values

249 Haida ethics and values are fundamental to Haida culture and society – respect, balance,
250 interconnectedness, giving and receiving, seeking wise counsel, and responsibility are all elements that
251 define the Haida world view.

252 As noted, these principles also resonate for broader communities, stakeholders and governments.
253 Accordingly, they underlie the approach to marine planning on Haida Gwaii and are considered the
254 foundation of the Haida Gwaii Marine Plan.

255 ***Yahguudang* or *Yakguudang*. Respect**

256 Respect for each other and all living things is
257 rooted in our culture. We take only what we
258 need, we give thanks, and we acknowledge
259 those who behave accordingly.

260 ***'Laa guu ga kanhlins*. Responsibility**

261 We accept the responsibility passed on by our
262 ancestors to manage and care for our sea and
263 land. We will ensure that our heritage is passed
264 onto future generations.

265 ***Gina waadluxan gud ad kwaagiida*.**

266 **Interconnectedness.** *Everything depends on*
267 *everything else*

268 The principle of interconnectedness is
269 fundamental to integrated planning and management. This comprehensive approach considers
270 the relationships between species and habitats, and accounts for short-term, long-term and
271 cumulative impacts of human activities on the environment. Interrelationships are accounted for
272 across spatial and temporal scales, and across agencies and jurisdictions.

273

Over thousands of years our histories have been carefully passed on through the generations through strict protocols in the delivery of knowledge. Through the recounting of our origins, the adventures of Raven, and of the Supernatural among us, we maintain our sense of place and identity.

Council of the Haida Nation, 2004

274 ***Giid tll'juus. Balance. The world is as sharp as the edge of a knife***

275 Balance is needed in our interactions with the natural world. If we aren't careful in everything we
276 do, we can easily reach a point of no return. Our practices and those of others must be
277 sustainable.

278 ***Gina k'aadang.nga gii uu tl' k'anguudang. Seeking Wise Counsel***

279 Our elders teach us about traditional ways and how to work in harmony. Like the forests, the
280 roots of our people are intertwined. Together we consider new ideas and information in keeping
281 with our culture, values and laws.

282 ***Isda ad diigii isda. Giving and Receiving***

283 Reciprocity is a respected practice in our culture, essential in our interactions with each other and
284 the natural world. We continually give thanks to the natural world for the gifts that we receive.

285 Haida ethics and values are also closely linked to scientific principles that are now considered part of
286 EBM. The relationship between specific EBM principles and Haida ethics and values is described in
287 Table 3-1.

288

289 **Table 3-1. Relationship between Haida Ethics and Values and Scientific Principles of EBM**

Haida Ethics and Values	Scientific Principles of EBM
Respect	Precautionary Approach
Responsibility	Inclusive and Participatory
Interconnectedness	Integrated Management
Balance	Sustainable Use over the Long Term
Intergenerational Knowledge	Adaptive Management
Reciprocity	Equitable Sharing

290

291

292

293 **3.2 Haida Gwaii Marine Vision and Goals**

294 The Haida Gwaii Marine Vision describes healthy ocean ecosystems that are managed with a balanced
295 perspective and based on respect:

296 *We see a future for Haida Gwaii that has healthy, intact ecosystems that*
297 *continue to sustain Haida culture, all communities, and an abundant diversity of*
298 *life, for generations to come. We will respect the sea around us and restore a*
299 *balance between marine resource use and the well-being of life of the ocean.*

300 Related to this vision, seven overarching goals for integrated marine planning and management
301 provide strategic direction to Haida Gwaii planning:

- 302 1. Conservation of marine ecosystems
- 303 2. Protection of Haida rights, title and interests
- 304 3. Sustainable ocean uses and activities
- 305 4. Best information
- 306 5. Balanced Haida Gwaii economy
- 307 6. Collaborative oceans management
- 308 7. Effective communication of marine-related issues

309 Examples of how these goals could be applied in planning are outlined in Table 3-2.

310

311 **Table 3-2. Planning Goals and Examples of Application**

GOAL	EXAMPLE OF APPLICATION
Conservation of marine ecosystems	<ul style="list-style-type: none"> • Protection of sensitive and unique ecological features • Management of areas for recovery and restoration of important habitat and species
Protection of Haida rights, title and interests	<ul style="list-style-type: none"> • Incorporation of Haida traditional knowledge to planning and management • Protection of cultural, archeological and spiritual values • Ensuring continued Haida access to marine resources
Sustainable ocean uses and activities	<ul style="list-style-type: none"> • Application of an integrated, ecosystem-based approach in management of marine uses and activities
Best information	<ul style="list-style-type: none"> • Application of Haida traditional knowledge and the best science in planning and management • Undertaking inventories, surveys and monitoring for improved and responsive management
Balanced Haida Gwaii economy	<ul style="list-style-type: none"> • Fostering opportunities for participation of Haida Gwaii residents in all marine and fisheries sectors, including increased local employment • Ensuring healthy coastal communities, including continuous benefits from marine resource use to Haida Gwaii residents
Collaborative oceans management	<ul style="list-style-type: none"> • Development of a framework for effective collaborative management of marine resources and activities between the CHN, Canada and the Province of BC • Engage local governments through Protocol Agreements to improve oceans management around Haida Gwaii
Effective communication of marine related issues	<ul style="list-style-type: none"> • Effective internal and external communication, including education and outreach

312

313

314 3.3 Haida Gwaii Preferred Scenario

315 The Haida Gwaii Preferred Scenario is drawn from results of the Haida Gwaii Marine Future Scenarios
316 Workshop (July 17-18, 2012), as well as direction expressed by the Haida Marine Work Group and Haida
317 Gwaii Marine Advisory Committee. The purpose of the workshop was to explore: (1) current and future
318 trends, challenges, and opportunities; and (2) future scenarios including scoping and identification of
319 key drivers, trade-offs, uncertainties and risks. The scenario below specifically describes the elements of
320 a “preferred” marine future on Haida Gwaii based on discussions and input compiled during the marine
321 planning process. It may contribute to, but does not describe, the broader vision for reconciliation of
322 Haida Aboriginal Title and Rights with Canada and BC.

HAIDA GWAII’S MARINE FUTURE: A CONSERVATION AND LOCAL ECONOMY PATH

Twenty years from now, Haida Gwaii has followed a path that prioritizes culture, healthy intact ecosystems, and sustainable communities. Marine use and development is balanced with high environmental protection standards and a comprehensive network of marine protected areas. Marine industries that are supported around Haida Gwaii generally have low environmental impacts and are consistent with the distinct islands lifestyle. Community growth is based on a diversity of activities that tap into a growing global demand for sustainable seafood and a unique visitor experience. Substantial progress in this direction has been made in the realms of environment, economy, community and governance as follows:

Environment – Haida Gwaii has embraced new conservation efforts through establishment of a network of marine protected areas. High environmental standards are required for all developments and activities. New policies and approaches are explored, and fisheries within Haida Gwaii waters are sustainable with significant levels of local involvement. These actions protect key habitats, marine communities and biodiversity as well as culturally significant places, and buffer against climate change and environmental uncertainties. The result is a resilient and productive marine environment that supports sustainable marine industries.

Economy - Economic development in the marine sector is focused on managed growth of tourism and shellfish aquaculture, slow but steady development of new community fisheries initiatives, and support for new sustainable technology initiatives and research. Haida Gwaii has become known as a premier tourism destination and source of sustainable wild fish and aquaculture products through concerted efforts in marketing and branding. Economic growth required sustained investment in human resources and key improvements in infrastructure. These improvements included amenities to support tourism, service industries or facilities to support fishing and upgrades in transportation and telecommunication systems to support business development. Focused training efforts prepare island residents and youth for new local opportunities. New partnerships and incentives serve to improve local benefits from recreational and commercial fishing in Haida Gwaii waters. New businesses are successful in part due to strong local leadership, ability to attract external investment and sustained government support. Overall the marine sector provides a greater proportion of local benefits and the number of jobs grows at a modest rate which keeps the islands population relatively stable.

Community – The Haida’s strong cultural attachment to the ocean flourishes while supporting economic opportunities that are a good match to their growing, youthful population. Island residents maintain a high quality of life resulting from access to healthy food, fresh air, and the expansive and generally uncrowded inlets and shores. Community cohesion is strong and there is pride in living on Haida Gwaii, particularly in the innovative and progressive management of waters around Haida Gwaii. Infrastructure – particularly facilities to support tourism and clean sources of electricity – improves, although it is a struggle to maintain community infrastructure without a large tax base and with reliance on seasonal jobs.

Governance - Marine and ocean governance systems continue to be refined and improved. The CHN, provincial and federal governments are working together along with industry sectors to meet the Marine Plan objectives, resulting in stronger co-management relationships over time. This includes collaborative efforts to manage marine protected areas throughout Haida Gwaii. Stronger relationships between managers, communities and users generate increased confidence in management decisions. The Haida Nation continues to work with local government to support island initiatives. Governance processes and decisions are sometimes slow but provide a stable base for development of businesses, delivery of services, or advocacy on behalf of island communities and other resource users.

323

324

325

326 **4. DESCRIPTION OF PLANNING AREA**

327 *Xaadaa Gwaay, Xaaydaq Gwaay.yaay*, or Haida Gwaii (“Islands of the people”) is an archipelago
328 situated off the north coast of British Columbia on the edge of the continental shelf. It is surrounded by
329 several large bodies of water – Hecate Strait separates Haida Gwaii from the mainland, and the islands
330 are bound by Dixon Entrance in the north, Queen Charlotte Sound to the south and the Pacific Ocean to
331 the west.

332 The ocean setting of Haida Gwaii is unique as it marks the transition between the Alaskan and the
333 California currents. The currents around the archipelago are highly seasonal and change from summer
334 to winter. In the summer the west coast is dominated by cool water from the upwelling of nutrient-rich
335 waters along the continental shelf. In the winter, “Haida Eddies” periodically form off the west coast and
336 around Cape St. James and carry pockets of nutrient and plankton-rich surface water to the north Pacific
337 and the Gulf of Alaska.

338 There are highly diverse nearshore habitats along Haida Gwaii along with a mix of shoreline types. The
339 rocky headlands of Gwaii Haanas, the sand dune beach systems on the northeast coast of Graham
340 Island, and the predominantly rocky shorelines along the west coast with sheltered pocket beaches and
341 sounds all provide important habitat for marine species. These shorelines are home to the rich kelp
342 forests found on the outer coast, and the lush eelgrass meadows found in the inlets and bays.

343 Marine life thrives in this region, as evidenced by the long history of Haida marine resource utilization.
344 Groundfish such as rockfish, halibut, sablefish, sole and cod have been targeted for numerous
345 generations by the Haida and more recently by the fishing industry. Halibut spawning and rearing areas
346 have been documented around the islands. Rockfish inhabit areas of high relief including the unique
347 cold water corals and sponge reefs found in Hecate Strait. Herring have provided for generations of
348 Haida and supported very productive fisheries in years past. For years, the BC Dungeness Crab fishery
349 has focused effort off the north east coast of Graham Island and today it is one of the most valuable
350 fisheries on the coast. This fishery is supported by an ocean gyre off the north coast of Graham Island
351 that retains larvae in the McIntyre Bay area including Rose Spit and Tow Hill.

352 Kelp forests and other marine algae support invertebrate and fish communities including juvenile Pacific
353 Halibut, Sablefish and numerous rockfish species. Herring spawn in the intertidal zone and shallow
354 waters on eelgrass, kelp, rock and other substrates. The nearshore currently supports Geoduck and Red
355 Sea Urchin dive fisheries. Northern Abalone were once abundant along this coast, but due to overfishing
356 they have been listed as a threatened population. These valuable fisheries target stocks that Haida have
357 used for generations and the stocks continue to support important traditional fisheries.

358 Haida Gwaii is known globally as an area rich in marine birds. The islands are home to 13 species of
359 nesting seabirds including provincially blue- and red-listed species, such as, Cassin’s Auklet, Ancient
360 Murrelet, Marbled Murrelet, and Horned and Tufted Puffins. It is estimated that 1.5 million seabirds
361 breed in colonies on more than 150 islands around Haida Gwaii. Eight of the ten top ranked coastal
362 wetlands for waterfowl in Northern BC occur in northern Haida Gwaii. Shorebirds also use Haida Gwaii
363 as a stopover on their migration routes.

364 Numerous marine mammals are found in Haida Gwaii waters. Grey and Humpback Whales migrate
365 through the region, sometimes stopping to feed for prolonged periods. Many rookeries and haul-out
366 sites exist for Pacific Harbour Seals and Steller Sea Lions. Killer Whales from three populations (NE
367 Pacific Northern Resident, NE Pacific Offshore and NE Pacific Transient), fur seals, porpoises, and
368 dolphins are sighted on a regular basis throughout the archipelago.

369 This rich environment historically supported a large Haida population, as evidenced by the many villages
370 and fishing and hunting camps located throughout the archipelago. Haida are well known for ocean-
371 going canoes carved from red cedar that were used for travel and trade. The current Haida Gwaii
372 population is about 4,400 people residing primarily within six communities. Roughly half of the residents
373 are of Haida ancestry. In 2010, about 30% of Haida Gwaii residents relied on the marine sector for their
374 living. Economic reliance on the ocean was once much greater but this has changed due to increasing
375 regulation and restrictions on commercial fishing.

376 Current commercial fisheries in Haida Gwaii waters include fisheries for all salmon species (troll, seine
377 net and gillnet), Dungeness Crab (trap), Red Sea Urchin and Geoduck (dive), Razor Clam, Pacific Herring
378 roe-on-kelp, prawn (trap), many groundfish species (trawl and hook and line), Albacore Tuna, Pacific
379 Halibut and Sablefish. Former fisheries that are not currently active include roe herring, Sea Cucumber,
380 Northern Abalone and Green Sea Urchin (dive) and shrimp (trawl). Potential new and emerging fisheries
381 include those for Pacific Sardine, Pacific Hake, Giant Pacific Octopus, Gooseneck Barnacle, offshore
382 prawn and krill.

383 Recreational fisheries are also a popular and growing marine activity on Haida Gwaii. Anglers typically
384 target Chinook and Coho Salmon, Pacific Halibut and rockfish species. Most of this activity is
385 concentrated around Langara Island and along the north and west coast of Graham Island where there
386 are a number of fishing lodges and other charter boat operations.

387 Boundaries for the planning area are defined by the Haida Statement of Claim (east/south), the
388 international boundary with the United States (north), and the toe of the continental slope (west). These
389 boundaries are consistent with the MaPP and Pacific North Coast Integrated Management Area
390 (PNCIMA) processes, with the eastern and southern boundaries defining the Haida Gwaii sub-region
391 within the MaPP process. Gwaii Haanas is included in the Haida Gwaii sub-region but spatial zoning for
392 this area is being addressed through a separate planning process (see Table 1-1).

393

394

395 5. KEY ISSUES, CONCERNS AND OPPORTUNITIES

396 The marine environment of Haida Gwaii faces a range
397 of threats as well as challenges and opportunities.
398 Collaborative marine planning provides an
399 opportunity to address these issues in a holistic and
400 integrated manner. The management direction in
401 Sections 6 and 7 contribute to this. Key issues include
402 the following.

403 **Deteriorating ocean health.** The world's oceans are
404 experiencing unprecedented change, ranging from
405 the proliferation of anoxic "dead" zones (areas of low
406 oxygen) to increasing pollution and accumulation of
407 marine debris. Deep water in the North Pacific Ocean
408 is already the most acidic in the global ocean and
409 BC's continental shelf might see negative impacts of
410 acidification sooner than most oceanic waters. Thus
411 far, Northern BC remains relatively sheltered from
412 the brunt of these problems; however their potential
413 effects highlight the need to manage human activities in an effort to reverse these global trends. Locally,
414 improvements can be realized by promoting best practices such as minimizing Haida Gwaii's carbon
415 footprint and treatment of sewage and proper waste disposal.

416 **Species at risk.** Several marine species found within
417 Haida waters are listed as threatened or endangered
418 under *Canada's Species at Risk Act* and several
419 others are proposed to be listed (see Appendix 5 for
420 a list and definitions). Managing for species at risk
421 requires a broader ecosystem approach that
422 recognizes and supports the biodiversity of life that
423 we depend on.

424 **Declining, collapsed or unsustainable fisheries.** BC is
425 experiencing declines in a broad range of fisheries.
426 Abalone fisheries have been closed since 1990 and
427 stocks are not rebuilding. The Haida Gwaii herring
428 roe fishery was closed in 1998 and has seen very
429 limited openings since then. Haida traditional *k'aaw*
430 (herring spawn-on-kelp or SOK) fisheries and the
431 commercial SOK have also had very limited openings
432 interspersed throughout the last decade. The Pacific
433 Cod fishery that once thrived in Hecate Strait has

Northern Abalone Now Endangered

- The abalone fishery collapsed and stocks aren't recovering despite a coast-wide closure since 1990.
- Northern Abalone were assessed as threatened in 1998, and listed as endangered under the *Species at Risk Act* in 2011.
- Poaching is suspected to be a major factor in lack of recovery.
- Haida Fisheries is leading a local stewardship group that focuses on public awareness and monitoring of juvenile abalone populations.

Pacific Herring Chronically Depressed

- Gwaii Haanas has one of five major spawning stocks of Pacific Herring in BC. A minor stock (one of two in BC) occurs on the west coast of Haida Gwaii. There are gaps in knowledge of herring life history, such as where they go when they're not spawning.
- Stock levels in Gwaii Haanas have been chronically low since 1995. Size-at-age has been decreasing since the 1960s.
- Commercial roe and spawn-on-kelp fisheries have been closed there since 2005 and Haida traditional *k'aaw* catch has been poor. CHN blockaded herring roe fisheries in 1998 and 2002.

434 been closed to directed fisheries for more than a decade. A coast-wide rockfish recovery strategy is
435 attempting to arrest rockfish population declines. Causes of decline are complex and range from
436 overfishing to changes in ocean productivity.

437 **Commercial fishing benefits.** Commercial fisheries are an important part of the marine economy of
438 Haida Gwaii, contributing an average annual landed value of over \$80 million to the provincial economy.
439 However, participation in these fisheries by island residents is very low and very few of the fish caught in
440 Haida Gwaii waters are delivered to local seafood processing plants. Increasing local economic benefits
441 from marine resources is key to developing sustainable island communities. Mechanisms for this may
442 include building participation in specific commercial fisheries, using local processing capacity, and
443 strengthening distribution channels.

444 **Increasing shipping traffic.** Northern BC is facing
445 significant increases in shipping traffic over the
446 next five years. In 2008 about 500 ships called at
447 the northern BC seaports of Prince Rupert, Kitimat
448 and Stewart. A container facility has been built in
449 Prince Rupert and liquified natural gas (LNG)
450 pipelines are proposed for Kitimat and Prince
451 Rupert. The proposed Northern Gateway Pipeline
452 also has the potential to significantly increase the
453 number of large vessels travelling through Haida
454 Gwaii waters. The risks of increased marine traffic
455 include a greater chance of oil spills as well as
456 increased ocean noise and the introduction of
457 exotic species through ballast water discharge.

458 **Alternative energy development.** Northern BC has
459 potential for generating electric power using wind,
460 wave or tidal energy. This would reduce Canada's
461 reliance on fossil fuels, lessen our ecological
462 footprint and help combat global warming.
463 Northern Hecate Strait has been identified as an
464 area with high potential for wind energy, as
465 demonstrated by a proposal by NaiKun Wind
466 Energy Group to develop an offshore wind farm in
467 the area. Although the NaiKun project is currently
468 on hold, wind energy may prove to be a viable marine industry in the future. In addition, several sites in
469 Masset Inlet have been identified as having potential for tidal energy.

470 **Aquaculture development.** Nearly half of the fish produced in the world today come from aquaculture.
471 Salmon and shellfish aquaculture have been active in southern BC for decades and the latter is gradually
472 expanding to the Haida Gwaii region. Common concerns about the impacts of finfish aquaculture
473 include disease and parasite transfer, the introduction and spread of exotic species, and habitat

Shellfish Aquaculture has Potential as Sustainable Industry

- Species with high aquaculture potential in Haida Gwaii include Japanese Scallops and Pacific Oysters.
- One small farm has operated in Skidegate Inlet since the mid-1990s. Two pilot farms have focused on scallops.
- A scallop hatchery is currently being developed in Prince Rupert.
- Challenges include developing reliable markets and high transportation costs making northern BC operations less competitive.
- Farms are typically labour-intensive, require considerable investment and have high operating costs.
- There is a need to set limits on aquaculture development in the early stages to ensure development is proactively managed and that cumulative impacts are considered.

474 degradation. There are currently no salmon farms
475 in Haida Gwaii. The CHN has its own moratorium
476 on finfish farming and supports a recent BC
477 moratorium on new salmon aquaculture
478 operations in northern BC (including Haida Gwaii).
479 Oysters and scallops are the focus of several
480 existing or pilot shellfish farms around Haida
481 Gwaii. Aquaculture requires clean waters and
482 reasonably sheltered coastal
483 sites. Development also needs to be consistent
484 with community objectives.

485 **Tourism development.** Haida Gwaii has excellent
486 potential as a destination for adventure,
487 ecotourism, and cultural tourism but lacks much
488 of the basic infrastructure for development. Ferry
489 and air transportation to the islands is expensive,
490 takes time, and can be irregular during the winter
491 months. Accommodation options are also limited
492 and there are very few organized activities for
493 visitors. The potential for growing tourism
494 opportunities on Haida Gwaii could be realized
495 through coordinated strategic planning for all
496 islands communities and investments in local business development.

497 **Recreational fishery expansion.** The number and capacity of privately operated fishing lodges has been
498 expanding for the past 25 years, resulting in increased recreational salmon and halibut catch.
499 Management of recreational fishing sector growth and examination of the sector's impact on fish stocks
500 and local communities is important. There is potential to improve recreational fishing practices and
501 increase community benefits including employment of Haida Gwaii residents.

502 **Climate change.** Large-scale effects of climate change are expected to include sea level rise and the
503 alteration of ocean circulation, increased ocean acidity, and changes in weather patterns. This is likely to
504 accelerate erosion of the coastline of Graham Island, affecting a major highway and utility lines. Sea
505 level rise will eventually inundate low lying areas. Communities must find ways to adapt to these
506 changes and/or mitigate potential impacts.

507 The above issues and concerns are described further in subsequent sections, and proposed objectives
508 and strategies to address them are detailed in Sections 6 and 7.

509

Haida Gwaii – A Developing Tourism Destination

- Haida Gwaii has considerable potential as a destination for both ecotourism and Aboriginal tourism.
- Current marine tourism focuses on Gwaii Haanas (2,000 people/yr) and private fishing lodges (14,000 people/yr).
- Gwaii Haanas has a Backcountry Management plan and capacity limits.
- Communities are concerned about unchecked recreational fishery development and declining visitor experience.
- Haida Gwaii lacks infrastructure including accommodation and services to support development.
- A local tourism strategy highlights the need for development to be consistent with community values.

510 **6. HAIDA GWAII GENERAL MANAGEMENT DIRECTION**

511 General management direction (GMD) is provided for the following eight management components:

- 512 6.1 Governance and Integrated Management
- 513 6.2 Cultural Values and Archaeological Sites and Areas
- 514 6.3 Ecological Values and Significant Features
- 515 6.4 Ecological Issues Related to the Fisheries Economy
- 516 6.5 Human Wellbeing
- 517 6.6 Marine Pollution and Spills
- 518 6.7 Logging-related Marine Activities
- 519 6.8 Climate Change

520 For each component, issues are identified and objectives and strategies to address the issues are
521 documented. The objectives and strategies establish guidelines for marine activities occurring in all
522 Haida Gwaii waters. They are linked to the overarching vision and goals outlined in Section 3.2. The
523 general management direction is complemented by other components of the Haida Gwaii draft Marine
524 Plan that address spatial designations, economic development and plan implementation.

525 Examples discussed by the Haida Marine Work Group and/or the Haida Gwaii Marine Advisory
526 Committee are provided in connection with many of the strategies. Examples are intended to assist with
527 implementation of the Marine Plan by informing development of action plans. Not all examples are
528 expected to be implemented.

529 The objectives and strategies in this section represent a comprehensive vision for integrated marine
530 management over the next 30 years. The parties recognize that not all of the general management
531 direction will be able to be implemented at once by any one authority. Specific objectives and strategies
532 will be implemented on a priority basis according to available resources (see Section 9). To the extent
533 possible, innovative partnership arrangements will be sought to optimize existing and new opportunities
534 for long-term monitoring of plan implementation and effectiveness.

535 All objectives and strategies outlined here are within the purview of the Haida Nation and the Province
536 of BC. In the following GMD sections where the Haida Nation and BC have identified objectives and
537 strategies that are outside of provincial jurisdiction, a reference is provided to a summary of those
538 objectives and strategies in Appendix 1.

539

6.1 Governance & Integrated Management

540 The Haida Gwaii draft Marine Plan is the product of a cooperative planning process led by the Haida
541 Nation and the Province of BC. As described in Sections 2 and 3, integrated management is integral to
542 the Haida Gwaii marine planning approach. The Haida Nation and Province of BC are working
543 cooperatively to support and sustain healthy marine ecosystems, traditional access to resources, and
544 diverse economic opportunities on and around Haida Gwaii. The Haida Nation, Canada and the Province
545 of BC have also committed to achieve integrated oceans management through other processes,
546 including both the PNCIMA Initiative and marine planning underway for Gwaii Haanas (Table 1-1).
547 Integrated management is defined as planning and managing human activities in a comprehensive
548 manner while considering all factors necessary for the conservation and sustainable use of marine
549 resources and the shared use of ocean spaces.

550 For the purposes of this Plan, the terms ‘shared decision-making’, ‘joint decision-making’ and
551 ‘cooperative management’ all pertain specifically to government-to-government relationships involving
552 shared responsibilities. ‘Shared’ or ‘joint decision-making’ refers to agreements between BC and the
553 Haida Nation to make best efforts to seek consensus on issues relating to land and natural resources.
554 ‘Cooperative management’ is consistent with terminology utilized by the federal and Haida Nation
555 governments in the management of the Gwaii Haanas National Marine Conservation Area Reserve and
556 Haida Heritage Site. Similar to shared decision-making, this approach allows for arrangements where the
557 parties can cooperate on planning and decision-making, working towards mutually-agreed-upon
558 objectives while maintaining individual jurisdiction and authority.

559 There are several areas on Haida Gwaii where cooperative governance relationships exist or can be
560 improved, including fisheries management, evaluation of marine development proposals or tenure
561 applications, compliance and enforcement, and marine safety and emergency response. All of these
562 areas are linked to effective implementation of the final Haida Gwaii Marine Plan.

563 It is recognized that there is a need for local governments, the general public and other stakeholders to
564 have opportunities to contribute meaningfully to marine management. Broad engagement, following
565 strong, collaborative government leadership, will result in a plan that can be applied in an effective and
566 practical way on the ground.

567 Objectives and/or strategies related to Governance & Integrated Management that are outside of
568 provincial jurisdiction are summarized in Appendix 1. In Table 6-1 below, an asterisk (*) is used to
569 denote where an objective has additional strategies listed in Appendix 1.

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571

572 **Table 6-1. Governance & Integrated Management - Management Issues, Objectives and Strategies**

6-1. GOVERNANCE & INTEGRATED MANAGEMENT	
Issue 1: Management of marine areas around Haida Gwaii	
Obj 1.1	Continue to build decision-making relationships between the Haida Nation, BC and Canada based on cooperative management, shared decision making and/or joint decision-making.
	Strategy 1.1A Continue to participate in existing planning and management processes. <i>Examples – Haida Heritage Sites and marine conservancies, Gwaii Haanas Marine Area, SGaan Kinghlas Bowie Seamount</i>
	Strategy 1.1B Improve existing and develop new decision-making processes to better integrate management across jurisdictions and places.
Obj 1.2	Improve existing and establish new and effective fisheries management relationships.*
	Strategy 1.2A Continue to participate in government-to-government technical committees.
	Strategy 1.2B Utilize reconciliation processes to address issues or disputes where appropriate.
	Strategy 1.2C Participate in coast-wide and/or international integrated fisheries management processes as appropriate.
	Strategy 1.2D Improve communications with stakeholder and industry groups through participation in sector-specific advisory processes.
Obj 1.3	Develop governance structures to implement jointly agreed marine plans for Haida Gwaii.
	Strategy 1.3A Refine or build upon existing management and decision-making arrangements between the Haida Nation, BC and other jurisdictions. <i>Examples – Integrated Haida Gwaii Marine Use Planning Framework, Haida Gwaii Management Council, Gwaii Haanas Archipelago Management Board, SGaan Kinghlas – Bowie Seamount Management Board</i>
	Strategy 1.3B Establish a stakeholder advisory process that supports the successful implementation of marine plans.
Obj 1.4	Ensure governance arrangements provide for the joint evaluation of existing or proposed marine developments and/or projects.
	Strategy 1.4A Work with relevant agencies/processes to review or provide input and direction to environmental impact assessments related to marine infrastructure development.
	Strategy 1.4B Collaborate with other processes and organizations, including mainland communities and First Nations, on projects related to regional shipping and transportation activities.

6-1. GOVERNANCE & INTEGRATED MANAGEMENT	
Issue 2: Increased need for effective and coordinated compliance and enforcement	
Obj 2.1	Establish a Compliance and Enforcement Framework between CHN, BC and other partners as appropriate.
	<p>Strategy 2.1A Support existing monitoring and compliance programs and expand where appropriate. <i>Examples – Haida Gwaii Watchmen, CHN Fisheries Guardians, Coast Watch Program (community reporting networks), BC Conservation Officer Service, BC Parks Rangers, RCMP; Develop tools with stakeholders.</i></p> <p>Strategy 2.1B Explore opportunities for increased cooperation among enforcement staff including Provincial Conservation Officers, CHN staff (including CHN Fisheries Guardians), Parks Canada Wardens, BC Parks Rangers, and others.</p> <p>Strategy 2.1C Provide incentives for compliance and apply appropriate penalties for non-compliance for all fishing activities. <i>Examples – Develop incentive programs; Consider restorative justice and/or financial penalties where appropriate.</i></p>
Obj 2.2	Work to secure sufficient resources and capacity to implement the Haida Gwaii Marine Plan, including monitoring of compliance related to fishing throughout Haida Gwaii.*
	<p>Strategy 2.2A Assess needs and identify resources to develop and implement management plans for zoned areas within the Haida Gwaii Marine Plan.</p> <p>Strategy 2.2B Increase CHN participation in monitoring and enforcement as appropriate.</p>
Issue 3: Increased need for coordinated marine safety and response capacity.	
Obj 3.1	Maintain sufficient marine safety and response capacity.*

* See Appendix 1 for strategies outside of provincial jurisdiction.

573

574

6.2 Cultural Values & Archaeological Sites and Areas

575 Haida Gwaii *Yah'guudang* – respecting Haida Gwaii – means respect for the past, present and future.
 576 Haida Gwaii has been home to the Haida people for thousands of years and will continue to be for
 577 generations to come. In the past, sea levels were much lower; archaeological excavations have revealed
 578 signs of human use that are now underwater due to rising sea levels. Known coastal archaeological sites
 579 support oral traditions of how early Haida lived, and many more sites remain to be found. Core samples
 580 from the land and sea bottom have potential to tell us what environmental conditions were like in the
 581 past. Haida Gwaii also has a variety of post-contact marine cultural or historical sites such as shipwrecks
 582 and canneries, as well as natural history or fossil sites that may require assessment and protection.

583 Coastal and foreshore developments, including tourism and recreation, logging, and town and industrial
 584 site expansion, threaten cultural and archaeological sites. Natural events such as storms can disturb or
 585 erode shoreline sites. In deeper water, bottom trawling and offshore industrial developments have
 586 potential to impact archaeological and cultural sites and areas. To safeguard the cultural heritage of
 587 Haida Gwaii it is imperative to protect known cultural, archaeological and natural history sites as well as
 588 sites that are found in the future, including locations featured in Haida oral traditions and spiritual
 589 places.

590 **Table 6-2. Cultural Values and Archaeological Sites and Areas - Management Issues, Objectives and**
 591 **Strategies**

6-2. CULTURAL VALUES AND ARCHAEOLOGICAL SITES AND AREAS	
Issue 1: Sites and/or areas not documented or researched	
Obj 1.1	Document and inventory Haida Gwaii cultural, archaeological and natural history sites and areas in a manner that recognizes data sensitivity.
	<p>Strategy 1.1A Identify and protect cultural and archaeological sites and areas consistent with guidelines by the CHN, provincial and/or federal agencies as appropriate. <i>Example – Marine areas associated with current and past village sites, spiritual sites, burial places, fish weirs, intertidal middens, intertidal and subtidal lithics, supernatural beings locations from oral history</i></p> <p>Strategy 1.1B Prioritize and conduct additional surveys for cultural, archaeological and natural history sites and areas.</p> <p>Strategy 1.1C Conduct interpretive research, including use of traditional knowledge, to aid in the identification and understanding of traditional sites and areas.</p> <p>Strategy 1.1D Develop a system for reporting new sites and areas to the CHN or designated Haida Gwaii management bodies.</p> <p>Strategy 1.1E Build on existing databases or establish a central Haida Gwaii database to record archaeological and natural history values and research projects. <i>Example – Gwaii Haanas report on paleontological resources of Haida Gwaii (2008)</i></p>

6-2. CULTURAL VALUES AND ARCHAEOLOGICAL SITES AND AREAS	
	Strategy 1.1F Work with other agencies/organizations to develop a central Haida Gwaii registration system for research projects.
Obj 1.2	Identify and develop appropriate management measures for post-contact cultural sites and areas.
	Strategy 1.2A Research, document and inventory cultural and/or historical sites and areas. <i>Examples – Shipwrecks, whaling station, canneries</i>
	Strategy 1.2B Support the development of management and protection plans for cultural and/or historical sites and areas.
Issue 2: Risk of damage and loss by human activities, natural disturbances and environmental change	
Obj 2.1	Develop greater awareness and understanding of cultural, archaeological and natural history values.
	Strategy 2.1A Develop and implement effective communications and outreach strategies to inform diverse audiences about cultural, archaeological and natural history sites and areas and their sensitivity to human activities, natural disturbances and environmental change. <i>Example: Interpretive education programs, tourism code of conduct</i>
Obj 2.2	Minimize damage to cultural, archaeological and natural history sites and areas.
	Strategy 2.2A Develop guidelines for human use that may affect intertidal or subtidal sites and areas including potential concerns related to developments, excavation, exploration and any other disturbance of the sea bottom.
	Strategy 2.2B Identify and protect natural history sites and areas around Haida Gwaii including limiting human use and the removal of fossils.
	Strategy 2.2C. Inventory, prioritize and archive sites and areas that are at risk of damage and/or loss from human activities, natural disturbances and environmental change (sea level rise, storm events, wave action, erosion etc.) and protect sites and areas where appropriate.
	Strategy 2.2D Ensure that research activities identify local sensitivities prior to commencement and adjust and/or mitigate activities accordingly.
Issue 3: Resources to document, protect and monitor sites and areas	
Obj 3.1	Identify resources to document, monitor and protect cultural, archaeological and natural history sites and areas.
	Strategy 3.1A Identify funding sources and opportunities, prioritize and conduct inventories/surveys documenting new and existing sites and areas, and establish a program to monitor and protect them.

6.3 Ecological Values & Significant Features

593 Healthy land and marine ecosystems are needed to sustain healthy Haida Gwaii communities, as they
 594 are relied on for nourishment, art and culture. Haida values teach respect for the land and sea, and
 595 responsibility to take care of Haida Gwaii ecosystems. It is recognized that Haida Gwaii is sensitive to the
 596 impacts of human activities, and that past industrial practices have had an impact on the health of island
 597 ecosystems and communities. The link between fresh and salt water ecosystems is especially important
 598 because, as highlighted in Section 3.1 (Haida Gwaii Ethics and Values), ‘everything is connected to
 599 everything else.’ Salmon connect the ocean to the forests. Estuaries link marine and terrestrial
 600 ecosystems. Protection of these areas is critical for the survival of many species (including salmon) that
 601 are culturally and ecologically important.

602 Expanding diversity and intensity of marine uses are resulting in increased threats to ecological values
 603 and features. Some of these threats are coastal developments, marine-related industrial activities,
 604 pollution from land and marine activities, physical damage by fishing gear, over-fishing, and noise.
 605 Human activities can have a range of impacts on natural ecosystems, from degradation (gradual
 606 changes), to damage (acute change), destruction (loss of marine life or function) and transformation (an
 607 altered ecosystem). This Plan seeks to sustain healthy ecosystems into the future, and restore areas
 608 affected by past and current activities where possible.

609 Objectives and/or strategies related to Ecological Values and Significant Features that are outside of
 610 provincial jurisdiction are summarized in Appendix 1. In Table 6-3 below, an asterisk (*) is used to
 611 denote where an objective has additional strategies listed in Appendix 1.

612

613 **Table 6-3. Ecological Values and Significant Features - Management Issues, Objectives and Strategies**

6-3. ECOLOGICAL VALUES AND SIGNIFICANT FEATURES	
Issue 1: Ecological impacts of human activities	
Obj 1.1	Protect and maintain healthy ecological features; identify and restore degraded or damaged ecological features.
	<p>Strategy 1.1A Develop guidelines and standards for monitoring and protection of key ecological features, as required.</p> <p><i>Examples – Estuaries, eelgrass meadows, kelp forests, essential habitat for a variety of species, tidal lagoons and sloughs, deep water habitats (e.g., coral and sponge reefs), other specific features</i></p>
	<p>Strategy 1.1B Work with relevant agencies to identify priority areas and habitat for restoration; develop, implement and build on existing restoration plans.</p> <p><i>Example – Eelgrass beds, estuaries</i></p>

6-3. ECOLOGICAL VALUES AND SIGNIFICANT FEATURES	
Obj 1.2	Encourage responsible and respectful marine tourism.
	<p>Strategy 1.2A Develop additional guidelines and/or codes of conduct to minimize the ecological, social and cultural impacts of marine tourism activities where necessary. <i>Examples – Guidelines for recreational fishing, beachcombing, wildlife viewing activities etc; information on local culture and values, environmentally sensitive practices, appropriate conduct, safety etc. Some codes of conduct could be site or activity-specific where appropriate.</i></p> <p>Strategy 1.2B Assess impacts and implement measures as necessary to minimize impacts of motorized vehicles in marine intertidal areas. <i>Examples – Kagan Bay, East Beach (Tlell to Rose Spit), North and South Beach, Grey Bay, Skidegate Beach</i></p>
Obj 1.3	Identify and minimize ecological impacts of marine energy projects.
	<p>Strategy 1.3A Work with federal agencies to minimize impacts of marine-based energy projects and implement best management practices, including mitigation measures.</p> <p>Strategy 1.3B Promote marine-based energy projects, as appropriate, which increase Haida Gwaii energy self-sufficiency and decrease dependency on imported fossil fuels. <i>Example – Tax breaks and other incentives</i></p>
Obj 1.4	Minimize ecological impacts of shellfish or marine plant aquaculture activities.
	<p>Strategy 1.A Consider potential ecological impacts when evaluating shellfish or marine plant aquaculture tenure applications.</p> <p>Strategy 1.B Work with relevant agencies as appropriate to minimize potential negative impacts of shellfish or marine plant aquaculture operations. <i>Example – Unintended introduction of exotic species, impacts from new and emerging aquaculture products</i></p>
Issue 2: Threats to biodiversity and declines in ecosystem health	
Obj 2.1	Through the MPA Network planning process, establish an MPA network that protects representative communities and habitats as well as special marine areas, and contributes to seascape ecosystem representation and resilience.
	<p>Strategy 2.1A Identify protection management zone candidates based on criteria that may include ecological, scientific, cultural, socio-economic, historical and/or spiritual significance, including review through the MPA Network planning process, and assemble sites into effective networks including consideration of connectivity, ecosystem resilience and representation.</p> <p>Strategy 2.1B Through the MPA Network planning process, implement an MPA network using Haida, provincial and federal authorities and management systems and with participation and input of local government, stakeholders and other interested parties.</p>
Obj 2.2	Account for cumulative effects of marine activities on the marine ecosystem
	Strategy 2.2A Develop a cumulative effects framework that incorporates all marine activities

6-3. ECOLOGICAL VALUES AND SIGNIFICANT FEATURES	
	and stressors that impact the marine ecosystem.
Issue 3: Threats to species of concern	
Obj 3.1	Protect, recover and monitor species of concern.*
	Strategy 3.1A Work with relevant agencies to support continued implementation of the Rockfish Conservation Strategy.
	Strategy 3.1B Support ongoing efforts to implement community action plans and recovery plans for Northern Abalone. <i>Example - Support Haida Gwaii Abalone Community Action Plan and work of the Haida Gwaii Marine Stewardship Group, including efforts to reduce illegal harvest.</i>
	Strategy 3.1C Work with relevant agencies, as necessary, to develop and implement recovery plans and review existing regulations to strengthen protection of listed species at risk. <i>Example – Great Blue Heron (nesting and feeding areas); Bocaccio; Northern Resident Killer Whale; Other marine species listed by COSEWIC and SARA (see list of species in Appendix 5), as well as by BC and the IUCN.</i>
	Strategy 3.1D Where appropriate, work with relevant agencies to identify additional marine species of concern and significant habitat, and initiate and/or participate in development and implementation of recovery plans.
	Strategy 3.1E Work with other agencies/processes to research and assess the occurrence of “whale strikes” by vessels and identify and implement strategies to minimize their frequency.
Issue 4: Impacts of invasive species	
Obj 4.1	Minimize introduction and impacts of invasive species.*
	Strategy 4.1A Review effectiveness of existing regulations, Best Management Practices and/or Codes of Practice relating to the provincial tenure or CHN management of aquaculture, such as the BC Aquaculture Codes of Practice, and make changes as necessary to prevent spread of invasive species to Haida Gwaii. <i>Example – Introduced species of concern include green crab and non-native tunicates.</i>
	Strategy 4.1B Work with federal agencies to develop management plans that include monitoring, evaluation and management actions for invasive marine species throughout Haida Gwaii.
	Strategy 4.1C Develop and implement an educational communication and outreach plan to prevent the introduction, establishment and spread of invasive marine species.
	Strategy 4.1D Review effectiveness of current regulations and guidelines for potential transfer mechanisms (e.g., construction materials, boat trailers) and recommend changes as necessary.

6-3. ECOLOGICAL VALUES AND SIGNIFICANT FEATURES	
Issue 5: Incomplete knowledge of biodiversity and ecology of Haida Gwaii	
Obj 5.1	Establish and support long term monitoring programs for ecological health.
	<p>Strategy 5.1A Develop objectives and indicators for monitoring of ecological health, and review and assess existing Haida Gwaii monitoring programs or develop new programs as necessary.</p> <p><i>Examples – Key species and habitats, support for legacy time series data sets and monitoring programs</i></p>
Obj 5.2	Support research initiatives and projects that improve understanding of Haida Gwaii ecosystems.
	<p>Strategy 5.2A Initiate and support collaborative research initiatives.</p> <p>Strategy 5.2B Establish a Haida Gwaii database of research projects (ecological and social).</p>

* See Appendix 1 for strategies outside of provincial jurisdiction.

614

6.4 Ecological Issues related to the Fisheries Economy

615 On a global scale, recent studies have shown clear evidence of overexploitation of fish stocks, changes in
 616 ecosystem functioning and damage to fish habitat that threaten the long term viability of many of the
 617 world’s fisheries. The Haida Gwaii draft Marine Plan focuses on the long-term sustainability of fisheries
 618 in Haida Gwaii waters, with the goals being to prevent negative trends and to restore degraded fish
 619 populations and habitat.

620 Fisheries must be ecologically sustainable, which means maintaining stocks and species at levels that
 621 don’t limit future options while ensuring the capacity of ecosystems to maintain their essential functions
 622 and processes and retain biodiversity. Overall it requires a precautionary approach to management or
 623 *Yahguudang* (see p. 23-24). Ecological sustainability is critical for social, economic, cultural and political
 624 aspects of sustainability including community sustainability that are addressed in Section 6.5 (Human
 625 Wellbeing) and Section 7 (Marine Economic Development). On Haida Gwaii, there are three general
 626 types of fisheries:

- 627 • *Haida traditional fishing* occurs throughout Haida Gwaii and is an important aspect of Haida
 628 culture. Continuity of traditional fishing and cultural fishing practices and activities are critical to
 629 the future of Haida communities.
- 630 • *Recreational fishing* is a significant activity in Haida Gwaii and anglers originate from BC, other
 631 parts of Canada, and other countries. Recreational fishing is also an important source of food for
 632 many island families throughout the year. Anglers target salmon and halibut but lingcod and
 633 rockfish are also targeted in lesser quantities.
- 634 • *Commercial fisheries* have been and continue to be an important part of the marine economy of
 635 Haida Gwaii.

636 Any fishing has potential to affect ecosystems by disturbing habitat or disrupting food webs, or through
 637 a variety of indirect effects. While many fish stocks in Haida Gwaii are healthy there are some that are
 638 depressed or at risk. There are a number of third-party assessments of fisheries that measure the
 639 sustainability and stewardship of specific BC fisheries that occur in Haida Gwaii waters. The
 640 methodologies of four such assessments are described in Appendix 6. The review of these fisheries
 641 assessments was used, along with local knowledge, to identify objectives and strategies that will address
 642 ecological issues related to fisheries sustainability. Species and activities of particular concern in Haida
 643 Gwaii include: herring (seine and gillnet), rockfish (longline), groundfish (trawl), Geoduck and Red Sea
 644 Urchin (dive).

645 Fishery assessments based on single species models and current fishery management plans address
 646 some but not all issues associated with sustainable fisheries management. To more fully address
 647 fisheries sustainability requires ecosystem-based fisheries management that considers interactions
 648 between species and the impacts of individual fisheries on the Haida Gwaii marine ecosystem as a
 649 whole.

650 Ecological impacts are relative to the size of a fishery and individual characteristics. Fisheries are listed
 651 below from largest to smallest (commercial, recreational and then Haida traditional use). Other aspects
 652 of fishing are addressed in the GMD for Governance (Section 6.1), Ecological Values (Section 6.3), and
 653 Human Wellbeing (Section 6.5) and in Section 7 (Marine Economic Development).

654 Objectives and/or strategies related to Ecological Issues Related to the Fisheries Economy that are
 655 outside of provincial jurisdiction are summarized in Appendix 1. In Table 6-4 below, an asterisk (*) is
 656 used to denote where an objective has additional strategies listed in Appendix 1. Many aspects of
 657 fisheries management fall under federal jurisdiction (as described by the *Constitution Act*) and this is
 658 reflected in the significant number of related objectives and strategies referenced in Appendix 1 for this
 659 specific section.

660

661 **Table 6-4. Ecological Issues Related to the Fisheries Economy - Issues, Objectives and Strategies**

6-4. ECOLOGICAL ISSUES RELATED TO THE FISHERIES ECONOMY	
Issue 1: Ecological impacts of commercial fishing	
Obj 1.1	Minimize negative ecological impacts of commercial fishing activities.*
Obj 1.2	Promote ecologically, culturally and socially sustainable commercial fishing activities.*
	Strategy 1.2A Work with relevant agencies to develop and implement EBM objectives.
	Strategy 1.2B Support research to investigate ecosystem effects of fishing.
Obj 1.3	Apply a precautionary approach or <i>Yahgudang</i> to new and emerging fisheries.*
Issue 2: Ecological impacts of recreational fisheries	
Obj 2.1	Work to address conservation, cultural and sustainability concerns.*

6-4. ECOLOGICAL ISSUES RELATED TO THE FISHERIES ECONOMY	
	<p>Strategy 2.1A Develop and implement a Haida Gwaii recreational fishery management plan for provincially tenured or CHN managed activities that address social, cultural and ecological carrying capacity limits for existing and any new operations or fishing areas.</p> <p><i>Examples – Build on existing agreements and relevant documents such as the 1994 Commercial Recreational Fishery Plan and recreational fishery protocol agreements.</i></p>
	<p>Strategy 2.1B Establish regulations to manage untenured floating lodges and passenger vessels operating as resorts.</p>
Obj 2.2	Document extent and monitor impacts of recreational fishing activities.*
	<p>Strategy 2.2A Work with relevant agencies and others to support development of monitoring programs to facilitate implementation of ecosystem-based management initiatives.</p>
Issue 3: Ecological impacts of traditional fishing, hunting and gathering	
Obj 3.1	Address conservation concerns related to traditional fishing, hunting and gathering.*
Obj 3.2	Document extent and monitor impacts of Haida traditional fishing, hunting and gathering.*

* See Appendix 1 for strategies outside of provincial jurisdiction.

662

663

6.5 Human Wellbeing

664 Human well-being, including cultural, economic and social values, is an integral part of the Haida Gwaii
 665 draft Marine Plan. For the purpose of this Plan, human well-being is considered to be a state of health,
 666 happiness and/or prosperity in which individuals, families, and communities benefit from a good quality
 667 of life. A brief sketch of the importance of Haida traditional use, recreational fisheries, commercial
 668 fisheries and marine infrastructure to human well-being on Haida Gwaii is provided below. Other
 669 aspects of human well-being are addressed in other sections of the GMD.

670 Successful Haida traditional use such as fishing, hunting and gathering requires access to a range of
 671 healthy resources. Traditional use activities are defined by the seasons and based on the principle of
 672 taking only what is needed, consistent with the concept of ‘sustainable use’ and stewardship. More
 673 awareness is needed of the importance of – and respect involved in – Haida traditional use and
 674 stewardship activities, particularly among visitors to Haida Gwaii.

675 Throughout Haida Gwaii, many residents rely on fishing to feed themselves, their families and other
 676 community members. This Plan recognizes local food security is an increasing consideration on Haida
 677 Gwaii and the marine environment is an important source of sustenance for numerous island families.

678 The recreational fishery is another important part of the fishing sector on Haida Gwaii. The growth of
 679 this sector has resulted in a number of social and economic concerns, including limited economic
 680 benefits to the people of Haida Gwaii, and potential impacts on Haida traditional use of marine
 681 resources and access to marine areas by island residents.

682 There is a broad suite of commercial fisheries that occur in Haida Gwaii waters. However, there are
 683 fewer and fewer locally owned and operated commercial fishing licenses, and seafood processing plants
 684 struggle to access fish and maintain seasonal employment. This Plan seeks to reverse this direction by
 685 supporting a locally-based fishing economy with meaningful local involvement in the management of
 686 those fisheries.

687 Finally, Haida Gwaii is a remote archipelago, so safe travel to, from and around the islands means that
 688 residents and visitors are reliant on marine transportation. Shipping delivers supplies to businesses and
 689 households – barges and BC Ferries bring fuel and freight, including groceries and other necessary
 690 goods. Close to population centres, docks, marinas, fuel stations and boat ramps are critical marine
 691 infrastructure. Maintaining marine infrastructure is necessary to both sustain a healthy island economy
 692 and enable vibrant and self-reliant communities.

693 Human wellbeing in relation to traditional use, fishing and marine infrastructure raises general issues
 694 regarding local participation and economic benefits from fishing sectors, traditional and local access to
 695 foods, marine-focused education and communication, and the importance of marine infrastructure to
 696 day-to-day life on Haida Gwaii. The draft Marine Plan addresses these issues with the goal of sustaining
 697 marine-based livelihoods, lifestyles, and culture.

698 Objectives and/or strategies related to Human Wellbeing that are outside of provincial jurisdiction are
 699 summarized in Appendix 1. In Table 6-5 below, an asterisk (*) is used to denote where an objective has
 700 additional strategies listed in Appendix 1.

701

702 **Table 6-5. Human Wellbeing - Management Issues, Objectives and Strategies**

6-5. HUMAN WELLBEING	
Issue 1: Loss of access to local foods	
Obj 1.1	Ensure access for traditional use activities.*
	<p>Strategy 1.1A Identify activities that conflict with traditional use and stewardship and proactively manage to provide for current and future use.</p> <p><i>Examples – Access to marine resources, spatial conflicts, tenure application process</i></p>
Issue 2: Spatial conflicts between marine uses	
Obj 2.1	Work to resolve spatial conflicts between different marine activities.
	<p>Strategy 2.1A Periodically review and assess existing and potential conflicts.</p> <p><i>Examples –Crab traps and ferries, boat traffic, anchorages and sensitive areas</i></p>

6-5. HUMAN WELLBEING	
	<p>Strategy 2.1B Periodically update marine plans to account for changes in marine uses. <i>Examples – Zoning of marine uses; Designation of Particularly Sensitive Sea Areas by the International Maritime Organization</i></p>
Issue 3: Conflict between recreational and traditional activities and values.	
Obj 3.1	Ensure respectful and responsible recreational fishing activities that consider both local and traditional values.
	<p>Strategy 3.1A Encourage establishment of Protocol Agreements between the Haida, BC and recreational fishery service providers to address recreational fishing issues. <i>Examples – Manage lodge growth rates and commit to sustainable fishing practices; Joint management</i></p>
Issue 4: Lack of education and communication about Haida traditional use and stewardship, and Island values	
Obj 4.1	Increase awareness and understanding of traditional use of marine resources.
	<p>Strategy 4.1A Develop and implement communication and interpretive education programs to inform Haida Gwaii communities and the general public about traditional use activities and stewardship. <i>Example – Educational material for public outreach; Communicate with fishing lodges and guests about upcoming net fisheries and other traditional use activities</i></p>
	<p>Strategy 4.1B Support programs and activities that encourage involvement of youth in traditional activities. <i>Example – Rediscovery camps</i></p>
Obj 4.2	Ensure commercial and recreational fishing practices are consistent with Haida traditional and Island values.*
	<p>Strategy 4.2A Establish and implement a Haida Gwaii Code of Ethics for responsible recreational fishing. <i>Example – Support development of alternative activities during fishing trips; Establish maximum acceptable soak times for trap gear; Remove abandoned gear; Stop fishing activities once limits are reached.</i></p>
	<p>Strategy 4.2B Develop and implement public outreach and education initiatives to promote best practices and Haida Gwaii fishing ethics.</p>
	<p>Strategy 4.2C Support and modify existing recreational fishing guide training programs to promote best practices and Haida Gwaii fishing ethics.</p>
Issue 5: Maintenance of marine infrastructure	
Obj 5.1	Maintain sufficient marine access and infrastructure.*
	<p>Strategy 5.1A Assess and identify needs and locations for marine infrastructure and public</p>

6-5. HUMAN WELLBEING	
	<p>access.</p> <p><i>Examples – Breakwater and piling near Queen Charlotte Boat ramp, marine ways</i></p>
	<p>Strategy 5.1B Recommend that BC Ferries maintain services at a reasonable cost and regularity to and from Haida Gwaii and between Skidegate Landing and Alliford Bay.</p> <p><i>Examples - Consider private-sector opportunities; Designate ferry route as a marine highway and essential service.</i></p>

** See Appendix 1 for strategies outside of provincial jurisdiction.*

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704

6.6 Marine Pollution & Spills

705 Marine pollution refers to pollutants or substances such as chemicals that enter the ocean from human
 706 sources (including spills) that may have possible harmful effects on the marine environment or species.
 707 Marine pollution can arise from the terrestrial run-off, local vessels or facilities, or passing ships, or be
 708 carried from afar by ocean currents or winds. Key contaminants include sewage, plastics and litter and
 709 petroleum spills. Management of marine pollution includes regulations to avoid discharges and
 710 measures to respond to spills or marine emergencies. A continuing concern is that Haida Gwaii has
 711 virtually no capacity to respond effectively to large-scale oil spills or marine emergencies.

712 Haida Gwaii has limited industrial or agricultural development. However sewage discharges occur into
 713 local waters from septic fields, municipal outfalls or floatcamps. They have resulted in sanitary shellfish
 714 closures and can affect future opportunities such as shellfish aquaculture. Small vessels are another
 715 local source of oily bilge water, sewage and litter.

716 Ship traffic is increasing in Haida Gwaii waters due to development of ports in Prince Rupert, Kitimat and
 717 Stewart. Cruise ships also regularly pass through Haida Gwaii waters en route to Alaska. Developments
 718 such as proposed oil pipelines could result in very large crude carriers transiting Haida Gwaii with
 719 increased risk of large oil spills. In addition, proposals to extract liquid natural gas (LNG) and export it by
 720 ship could also increase the number of large vessels transiting Haida Gwaii waters. These ships may
 721 discharge bilge water, sewage or grey water. Cargo from transport vessels is sometimes lost and may
 722 drift ashore. Ocean noise is also a growing concern due to increases in marine traffic and development
 723 of marine infrastructure; it can have negative impacts on marine life such as whales and other marine
 724 mammals.

725 Pollution from certain other sources is addressed in the GMD for Climate Change and Logging-related
 726 GMD. Objectives and/or strategies related to Marine Pollution and Spills that are outside of provincial
 727 jurisdiction are summarized in Appendix 1. In Table 6-6 below, an asterisk (*) is used to denote where an
 728 objective has additional strategies listed in Appendix 1.

729

730 **Table 6-6. Marine Pollution and Spills - Management Issues, Objectives and Spills**

6-6. MARINE POLLUTION AND SPILLS	
Issue 1: Pollution in the marine environment	
Obj 1.1	Minimize pollution and harmful noise resulting from human activities and infrastructure.*
	<p>Strategy 1.1A Work with relevant agencies and local governments as necessary to identify, assess and monitor potential marine pollution from sewage, upland and ocean sources. <i>Example – Contamination from septic fields, offal waste from fish processing plants, aquaculture, electrical fields, marine vessels, lodges, ocean and stream debris, mine sites and log sorts.</i></p>
	<p>Strategy 1.1B Work with relevant agencies, local governments, and any new or existing processes to promote high environmental standards for the marine industry and infrastructure in BC. <i>Examples: Review current regulations for dumping/onboard storage/treating of bilge water, waste and ballast water and recommend amendments, as appropriate; Evaluate the use of harmful chemicals in the marine environment by marine vessels (e.g. tributyltin anti-fouling paint) and marine-related infrastructure (e.g. treated wood for docks) and manage, as appropriate; Assess and monitor waste disposal and pollution from land-based and floating camps; Assess current infrastructure and encourage development of additional waste disposal infrastructure and services, as appropriate; Promote use of cleaner fuels.</i></p>
	<p>Strategy 1.1C Review existing provincial and policies for assessment of development projects and prevention of pollution including waste disposal, and work with relevant agencies to implement best practices.</p>
	<p>Strategy 1.1D Assess and mitigate as necessary the effects of light sources originating from lodges and vessels that attract and impact bird survival, especially those in proximity to seabird colonies.</p>
	<p>Strategy 1.1E Require rigorous assessment for any proposed geo-engineering projects, including sound scientific rationale and appropriate permitting. <i>Examples: Ocean fertilization</i></p>
Obj 1.2	Reduce the amount of waste and garbage in Haida Gwaii waters and shorelines.
	<p>Strategy 1.2A Work with different levels of government and community groups to reduce waste entering the marine environment and develop a coordinated response to the cleanup and disposal of marine debris, including potential hazardous waste. <i>Examples – Marine debris from Japanese tsunami, garbage from ships, plastic on Haida Gwaii beaches from various sources</i></p>
	<p>Strategy 1.2B Work with relevant agencies and others (e.g. local governments, US agencies) to develop emergency preparedness action plans in response to major accidents or events</p>

6-6. MARINE POLLUTION AND SPILLS	
	that may result in release of marine debris. <i>Examples – Future tsunamis, container spills</i>
Obj 1.3	Ensure sufficient prevention of and response capacity for accidents and marine spills.
	<p>Strategy 1.3A Work with relevant agencies and others to increase marine spill response training, preparation and equipment for effective response to both local and regional spills or accidents. <i>Examples – Haida Gwaii response training, local/regional response equipment</i></p> <p>Strategy 1.3B Work with relevant agencies and others to identify sensitive locations and develop plans for marine spill and groundings response. <i>Examples – Sensitive ecological habitats, important harvesting areas; Geographic Response Plans</i></p> <p>Strategy 1.3C Work with relevant agencies and others to increase measures to prevent accidents or spills. <i>Examples – Rescue tugs, increased vessel traffic control</i></p> <p>Strategy 1.3D Work with others to establish an independent fund or augment existing funds to support prevention and response activities. <i>Example – National Oil Spill Prevention Fund</i></p>

* See Appendix 1 for strategies outside of provincial jurisdiction.

731

6.7 Logging-related Marine Activities

732 Forestry remains an important part of the Islands’ economy, directed by the Haida Gwaii Strategic Land
 733 Use Agreement signed in December 2007 and regulated by the Haida Gwaii Land Use Objectives Order
 734 signed off in 2010. The impacts of logging activities extend from watershed headwaters to the ocean –
 735 sedimentation from upland sources and pollution from oil and other contaminants affect marine
 736 ecosystems downstream. Log booming activities can result in increased sedimentation, accumulation of
 737 bark under booming areas, and physical disturbance through grounding, propeller wash and other
 738 vessel-caused disturbances. The frequency of log barge traffic has decreased in recent years due to
 739 reduced forestry operations on-island, yet log booming grounds and sedimentation continues to affect
 740 rivers, streams and estuaries. The visual impacts of coastal forestry activities also affect marine-based
 741 tourism activities.

742 The effects of logging on salmon production in Haida Gwaii’s freshwater systems are of concern,
 743 although practices have improved. Implementation of restoration initiatives and associated
 744 management actions should continue to be a priority for Haida Gwaii land use managers. Effects of land-
 745 based operations on the marine environment need to be better understood and addressed.

746

747 **Table 6-7. Logging-related Marine Activities - Management Issues, Objectives and Strategies**

6-7. LOGGING-RELATED MARINE ACTIVITIES	
Issue 1: Ecological impacts of logging-related activities	
Obj 1.1	Minimize ecological impacts of logging-related activities to marine areas.
	<p>Strategy 1.1A Assess marine impacts of logging activities such as helidrop sites, log sorts, barging and log booming operations and develop and apply best management practices for potentially impacting activities. <i>Examples – Siltation of foreshores and estuaries, bark debris</i></p> <p>Strategy 1.1B Monitor floating camps, barges and land-based facilities for potential marine ecological impacts, and develop best practices and mitigation strategies for their use. <i>Examples – Fuel and waste pollution, Beattie Camp (Louise Is.), other sites to be identified</i></p> <p>Strategy 1.1C Ensure that all logging-related activities are authorized through appropriate tenuring processes that consider ecological impacts of proposed activities.</p>
Issue 2: Continuing degradation of sites due to logging-related activities	
Obj 2.1	Improve habitat under and around past and current log sorts, booming areas and other areas impacted by logging and related activities.
	<p>Strategy 1.2A Identify past log sorts, booming areas and other areas affected by logging-related activities, assess sites for habitat restoration, and develop, implement and prioritize restoration plans as appropriate. <i>Examples – Log sorts, sedimentation issues in estuaries</i></p> <p>Strategy 1.2B Maintain rigorous compliance and enforcement regime to ensure high ecological standards are adhered to at active log sorts and booming sites. <i>Examples – Masset Inlet SSU – Ferguson Bay (MI-4); Skidegate Inlet SSU – Queen Charlotte, Jake’s Landing, South Bay, Alliford Bay; West Coast SSU – Shields Bay, Newcombe Inlet; regular monitoring of active log sorts</i></p> <p>Strategy 1.2C Identify funding opportunities for habitat restoration plans on Haida Gwaii. <i>Example – Explore opportunities for fee levied against logging companies for habitat damage to directly fund local restoration.</i></p>

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750

6.8 Climate Change

751 Climate change is the result of the continued release of greenhouse gasses into the atmosphere. Rising
752 sea levels and changing ocean circulation patterns will lead to regional and localized effects that will
753 have ecological, economic, social and technological consequences. Communities must find ways to
754 adapt to climate change and mitigate potential impacts.

755 With changing climates we are likely to experience a range of shifting conditions including but not
756 limited to: rising sea levels, increasing ocean temperatures, changes in water chemistry (pH, dissolved
757 oxygen), changes in precipitation patterns, and more frequent and severe storms. Predictions of future
758 climate and oceanic conditions are difficult to make and they are further complicated by the variable
759 oceanographic conditions resulting from the location of Haida Gwaii near the transition zone between
760 the California and Alaskan currents.

761 Some marine species are more sensitive than others to environmental changes and research has shown
762 that whole ecosystems in northern latitudes are relatively more susceptible to temperature changes.
763 This may lead to alterations in the distribution and abundance of commercially and culturally important
764 species. Current research is demonstrating that changes in ocean pH are not only happening more
765 rapidly but the consequences may be more dire than first expected. As carbon dioxide concentrations
766 increase in the atmosphere so does the amount of carbon dioxide that dissolves into sea water,
767 resulting in more acidic oceans. This, in turn, has negative effects on shell formation by corals, mollusks
768 and crustaceans. Other effects of acidification on species may include: 1) decreased reproductive and
769 recruitment success, 2) shifts in species composition and distribution, 3) changes in timing of stages of
770 growth and development, 4) physiological impairment, and 5) altered prey availability. These negative
771 changes could lead to larger-scale ecosystem effects such as shifts in food web structure.

772 These large-scale changes are altering ecosystem dynamics and productivity. Increased stress affects the
773 resilience and health of ecosystems that are already under pressure from a variety of threats including:
774 loss of coastal habitats, loss of wetlands, freshwater diversion, sedimentation, overexploitation of
775 marine resources and pollution. These threats may have cumulative effects on species or ecosystem
776 function. A challenge will be to manage fish habitat and fisheries in the face of the uncertainty around
777 interacting stressors and climate change.

778 Haida Gwaii has several low-lying coastal communities that are vulnerable to sea level rise and extreme
779 weather events. All communities on Haida Gwaii depend on goods delivered from the mainland via
780 transportation linkages that are susceptible to interruption due to intense storm events. Similarly, on-
781 island transportation routes and power and communications transmission are affected by weather. The
782 communities of Masset, Old Massett, Tow Hill, Tlell and Sandspit are low lying and particularly
783 vulnerable to the long-term effects of climate change. Island-wide, communities would benefit from
784 proactive planning to prepare for, mitigate, and adapt to the effects of climate change.

785

786 **Table 6-8. Climate Change - Management Issues, Objectives and Strategies**

6-8. CLIMATE CHANGE	
Issue 1: Climate change resulting in alterations to ocean ecosystem production and dynamics	
Obj 1.1	Prepare and manage for large scale ecological changes as a result of climate change.
	Strategy 1.1A Establish a network of marine protected areas to increase resilience and protect marine habitats and biodiversity. In particular consider climate change in the siting and design of the network.
	Strategy 1.1B Conduct a climate change vulnerability assessment for Haida Gwaii to identify priorities and issues.
	Strategy 1.1C Consider climate change in the selection of ecosystem indicators and development of adaptive management plans.
Issue 2: Changes in fisheries and aquaculture due to climate change	
Obj 2.1	Support collaborative efforts to monitor and manage changes in marine systems due to climate change
	Strategy 2.1A Consider the effect of climate change on the locally important fisheries economy, particularly in selection of indicators and development of adaptive management plans.
	Strategy 2.1B Support collaborative efforts to identify, research and evaluate potential new opportunities for the fisheries opportunities as a result of climate change.
	Strategy 2.1C Consider the effect of climate change on new and existing shellfish aquaculture operations, particularly in the development of adaptive management plans.
Issue 3: Communities vulnerable to impacts of climate change	
Obj 3.1	Reduce community vulnerability to climate change impacts and support resilience.
	Strategy 3.1A Identify climate-based risks that communities are predicted to face or are already experiencing and assess their adaptive capacity.
	Strategy 3.1B Identify and mitigate the vulnerability of critical marine infrastructure to natural hazards induced by climate change impacts through adaptive planning. <i>Example – Wharves, erosion protection, docks, emergency facilities</i>
	Strategy 3.1C Increase public awareness of climate change and future impacts through various forms of community outreach and public education.
	Strategy 3.1D Support the development of community emergency response plans and general household level preparedness for emergency situations. <i>Example – Food/water supplies, power outages, fuel, heating/lighting sources</i>
	Strategy 3.1E Manage and adjust regional and local stressors to minimize cumulative stress

6-8. CLIMATE CHANGE	
	on the ecosystem (e.g. fishing, pollution, coastal development).
Issue 4: Increasing greenhouse gas emissions on a global scale	
Obj 4.1	Contribute to provincial, regional and local efforts to reduce greenhouse gas emissions.
	<p>Strategy 4.1A Support BC’s Climate Action Plan to meet greenhouse gas reduction targets and the development of regional and local strategies.</p> <p><i>Example – work with communities and local government to develop an energy plan for Haida Gwaii (including local energy targets)</i></p>

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789 **7. HAIDA GWAII MARINE ECONOMIC DEVELOPMENT DIRECTION**

790 Haida Gwaii's island-based economy has always been closely linked to the ocean. In recent decades, the
791 marine economy on Haida Gwaii has declined in importance due in part to both regional and global
792 market changes. This is generally considered to be a loss to island society and increasing marine
793 economic development opportunities on Haida Gwaii is a critical element of this Plan.

794 A healthy marine economy would balance traditional and emerging sectors, guided by a clear vision of
795 the future. As described in Section 3.3, different "future scenarios" were explored in an expert
796 workshop to determine their suitability for Haida Gwaii. The results were synthesized and a "preferred
797 scenario" was developed that describes a vision for the future that highlights environment, economy,
798 community and governance.

799 This section focuses on five activities in Haida Gwaii that have potential for future growth:

- 800 • **Marine tourism** positioning Haida Gwaii as a premier tourism destination;
- 801 • **Shellfish aquaculture** marketing sustainable aquaculture products;
- 802 • **Community-based fisheries economy**, based on sustainable wild fisheries; and
- 803 • **Marine research and monitoring**, including documenting baseline data and monitoring changing
804 conditions; and
- 805 • **Marine renewable energy** such as new wind or tidal energy projects.

806 The first four sectors were identified during the workshop that evaluated future scenarios for the Haida
807 Gwaii marine economy. They were selected because they were considered consistent with the overall
808 vision for Haida Gwaii's future: a conservation and local economy path, taking advantage of sustainable
809 technologies and linking to the global economy where appropriate. They all require sustained
810 investment in infrastructure and human resources. Partnerships and capacity building will be critical to
811 ensure local benefits that contribute to a stable population base on Haida Gwaii.

812 Marine Renewable Energy was identified as another emerging marine sector by both the Haida Marine
813 Work Group and Haida Gwaii Marine Advisory Committee. This sector is also consistent with the overall
814 economic vision for Haida Gwaii, due to its focus on sustainable technologies.

815 Marine economic development is a priority on Haida Gwaii and at broader regional and coastal scales.
816 One of the key outputs of the MaPP process is the development of integrated economic strategies. This
817 includes recommendations and/or strategies for improving the viability of marine economic sectors at a
818 regional scale, and the identification of opportunities and constraints for increased economic activity,
819 including potential and existing policies and programs within sub-regions, including Haida Gwaii.

820 At the same time, the PNCIMA process has also identified integrated economic strategies as a priority
821 issue for marine planning. In particular the PNCIMA plan commits to an assessment of current and
822 emerging social and and cultural conditions in PNCIMA and the economic opportunities available to
823 PNCIMA sub-regions. Linking Haida Gwaii marine economic objectives and strategies to MaPP and
824 PNCIMA-scale outcomes is another means to rebuild a robust and healthy marine economy on Haida
825 Gwaii.

826 Many of the objectives and strategies listed below can be achieved through initiatives that are already
827 underway. Examples include programs such as DFO's Pacific Integrated Commercial Fisheries Initiative
828 (PICFI) to facilitate the transfer of commercial licenses and assets to First Nations. CHN Fisheries and
829 Coastal First Nations-Great Bear Initiative are also working to coordinate marine training and education
830 opportunities, including programs that may be utilized by Haida citizens as part of the strategy to
831 increase participation in marine sectors. This is all occurring against the backdrop of ongoing
832 reconciliation talks between the governments of Canada, BC and the Haida Nation – negotiations that
833 aim to confirm government commitments to the Haida Gwaii economy and thereby strengthen
834 sustainable Haida (and broader Haida Gwaii) communities in the future.
835

7.1 Marine Tourism

836 Marine tourism on Haida Gwaii is comprised of recreational fishing and other eco/cultural/adventure
837 tourism activities. The term recreational fishing covers a variety of activities including recreational
838 fishery service providers conducted from fishing lodges and by charter fishing companies, and self-
839 directed recreational fishing where the fishermen use their own equipment. In 2002, approximately
840 13,800 clients visited 18 Haida Gwaii fishing lodges, not including charter guests or self-guided
841 fishermen. In 2013, there were 18 fishing lodges and 55 charter operators on Haida Gwaii. Fishing
842 lodges, which have increased both in number and in size over the last fifteen years, are estimated to
843 account for 70-75% of reported recreational catches.

844 The designation of Gwaii Haanas as a Haida Heritage Site and National Park Reserve by the Haida Nation
845 and Canada in 1985 and 1987 respectively, and then as a National Marine Conservation Area Reserve in
846 2010, has brought global attention to the archipelago. The natural beauty of Haida Gwaii, its remoteness
847 and sense of wilderness and the appeal of Haida culture continues to attract visitors from Canada and
848 abroad. Although, many eco/cultural/adventure tourism operators focus primarily on the Gwaii Haanas
849 area, some also conduct tours in other parts of the islands. Marine tourism activities typically include
850 kayaking, surfing, beachcombing on beaches, and visits to cultural areas.

851 Due to the remote nature of the islands, visitors who come to Haida Gwaii often stay longer than they
852 might at a mainland destination and the spin off effects within communities are significant;
853 accommodation, food and retail outlets benefit from tourism dollars and facilities such as the Haida
854 Heritage Centre at *Kay Llnagaay* and the other smaller community museums draw visitors by celebrating
855 Haida culture and island heritage.

856 Five objectives and associated strategies have been identified to support the growth of the marine
857 tourism industry on Haida Gwaii. Objectives and/or strategies related to Marine Tourism that are
858 outside of provincial jurisdiction are summarized in Appendix 1. In Table 7-1 below, an asterisk (*) is
859 used to denote where an objective has additional strategies listed in Appendix 1.

860

861 **Table 7-1. Marine Tourism - Management Issues, Objectives and Strategies**

7-1. MARINE TOURISM	
Issue 1: Opportunities for economic development related to marine tourism.	
Obj 1.1	Assess opportunities for marine tourism and encourage tourism development in suitable locations.
	<p>Strategy 1.1A Conduct a marine tourism feasibility and impact assessment that evaluates tourism potential and identifies factors limiting tourism development. <i>Examples – Consider opportunities for expanding the tourism season past September (e.g., storm watching, wildlife viewing (seals, whales) and adventure tourism (remote west coast trail, scuba diving))</i></p> <p>Strategy 1.1B Identify locations key to the visitor experience and promote and manage opportunities. <i>Examples – Kayaking, boating/yachting, recreational fishing, beach walking, camping, safe anchorages, road and access points, campsites, trails, surfing</i></p> <p>Strategy 1.1C Identify appropriate levels of tourism activity in specific locations as necessary. <i>Examples – Utilize quotas or business licenses; Limits on numbers of visitors (per location or per day).</i></p> <p>Strategy 1.1D Identify opportunities for improvement of local tourism infrastructure. <i>Examples – Boat launches and marinas</i></p>
Issue 2: Quality of visitor experience.	
Obj 2.1	Market and promote sustainable products and consistent visitor experiences.
	<p>Strategy 2.1A Support development of more market-ready tours and visitor experiences.</p> <p>Strategy 2.1B Promote recognized operator accreditation and certification standards.</p> <p>Strategy 2.1C Identify and promote authentic experiences, including support for local special events. <i>Examples – Organize large special events to draw visitors (e.g., salmon festival, Haida cultural festivals, food festivals, artist exhibitions etc.)</i></p> <p>Strategy 2.1D Encourage delivery of comprehensive and coordinated visitor services that align with market development. <i>Examples – Market-ready visitor packages; Coordinating visitor centres, websites and social media; destination brochures, etc.</i></p> <p>Strategy 2.1E Develop outreach programs for visitors. <i>Examples – Tourism education and information packages, orientations</i></p>
Issue 3: Limited regional, national and international awareness of Haida Gwaii.	
Obj 3.1	Promote Haida Gwaii as a tourism destination.
	<p>Strategy 3.1A Identify a lead group or organization, mandated to represent all island communities, to be responsible for increasing the islands’ exposure. <i>Example – Target marketing at appropriate audiences</i></p> <p>Strategy 3.1B Support development of a Haida Gwaii brand that can be used for</p>

7-1. MARINE TOURISM	
	marketing tourism and other products.
	<p>Strategy 3.1C Identify funding sources including revenue-generating opportunities that can support tourism destination marketing and development of community services.</p> <p><i>Examples – Provincial programs, membership fees for tourism operators, hotel tax, user fees, operator fees such as for potential cruise ship business.</i></p>
Issue 4: Capturing local economic benefits from marine tourism on Haida Gwaii.	
Obj 4.1	Increase local economic benefits from marine tourism.*
	<p>Strategy 4.1A Work to provide training opportunities in the marine tourism sector.</p> <p><i>Example – Support local recreational guide training programs</i></p>
	<p>Strategy 4.1B Encourage local hiring, purchasing and business opportunities in the marine tourism sector.</p> <p><i>Examples –Recreational fishery boats and lodges to preferentially employ persons that are Haida or other Island residents; Community-based hiring offices; Local purchasing of supplies by tourism operators where possible.</i></p>
	<p>Strategy 4.1C Encourage youth to pursue training and certifications to work in the marine tourism sector.</p> <p><i>Example – Job fairs and presentations for high school students; high school work experience programs</i></p>
Issue 5: Perception that tourism development could negatively change island communities.	
Obj 5.1	Build local support for the marine tourism industry.
	<p>Strategy 5.1A Conduct local education and outreach to promote the local benefits of tourism.</p> <p><i>Examples – Show linkages to maintenance of infrastructure and community amenities; Include information about the contributions of tourism to the islands and ways to enhance the visitor experience.</i></p>
	<p>Strategy 5.1B Apply the principles and direction of the Heritage Tourism Strategy and other Island-supported tourism guidelines.</p>

* See Appendix 1 for strategies outside of provincial jurisdiction.

862

863

7.2 Shellfish Aquaculture

864 The harvesting of shellfish for food and cultural purposes is a long standing Haida practice, although the
 865 modern shellfish culture industry is at a fledgling stage on Haida Gwaii. Over the past 30 years there
 866 have been a variety of local trials and pilot projects to culture oysters, mussels and scallops. There are
 867 currently three active shellfish tenures in Haida Gwaii that produce scallops or oysters, four tenures in
 868 good standing but not being actively worked, and three accepted tenure applications.

869 Shellfish production could expand rapidly in the near future if proposed projects (currently at different
 870 stages of implementation) become operational. This includes aquaculture proposals for further
 871 production of scallops, as well as Geoduck and Sea Cucumber. Shellfish culture is generally viewed by
 872 Haida Gwaii communities as an environmentally sustainable industry compatible with Haida and island
 873 values. Further, it offers a sustainable economic development opportunity with commercially viable
 874 operations providing employment and income.

875 Three objectives and associated strategies have been identified to support the growth of the shellfish
 876 aquaculture industry on Haida Gwaii. Objectives and/or strategies related to the Shellfish Aquaculture
 877 that are outside of provincial jurisdiction are summarized in Appendix 1. In Table 7-2 below, an asterisk
 878 (*) is used to denote where an objective has additional strategies listed in Appendix 1.

879 **Table 7-2. Shellfish Aquaculture - Management Issues, Objectives and Strategies**

7-2. SHELLFISH AQUACULTURE	
Issue 1: Opportunities for shellfish aquaculture development.	
Obj. 1.1	Assess opportunities for shellfish aquaculture and encourage development in suitable locations. *
	<p>Strategy 1.1A Work with relevant agencies to identify and support development of shellfish aquaculture in suitable areas through spatial planning and environmental assessment, including the determination and establishment of capacity limits as appropriate to guide tenuring.</p> <p><i>Examples – Total number and size of operations, capacity limits in shellfish aquaculture adaptive management areas</i></p>
Obj 1.2	Encourage investment and enhance economic sustainability of shellfish aquaculture tenure operations
	<p>Strategy 1.2A Encourage scale of operations that can mitigate cost and locational disadvantage of farms locating in Haida Gwaii.</p> <p>Strategy 1.2B Encourage development of infrastructure such as establishment of shellfish aquaculture hatchery to support Haida Gwaii operations.</p> <p>Strategy 1.2C Review regulatory regime for shellfish aquaculture to identify opportunities for streamlining.</p> <p>Strategy 1.2D Support development of a Haida Gwaii brand that can be used for shellfish</p>

7-2. SHELLFISH AQUACULTURE	
	aquaculture and other products.
Issue 2: Capturing local economic benefits from shellfish aquaculture on Haida Gwaii.	
Obj 2.1	Increase local benefits from shellfish aquaculture.
	Strategy 2.1A Promote local processing and marketing of aquaculture products.
	Strategy 2.1B Encourage local ownership of tenures and a locally-operated aquaculture industry.
	Strategy 2.1C Support training of Haida Gwaii residents for shellfish aquaculture grow-out (hatchery and farm) or processing operations.

880

7.3 Community-based Fisheries Economy

881 Community-based fisheries refer to island-based community participation (including, processing,
 882 marketing and management) in the various commercial fisheries that occur in the waters around Haida
 883 Gwaii. Commercial fisheries have been an integral part of Haida Gwaii’s history to present day. Over the
 884 past forty years however, there have been marked declines in local participation in commercial fisheries
 885 due in part to limited entry licensing, fleet buyback programs, area licensing as well as fisheries
 886 management and allocation policies. Fisheries have also shifted from an emphasis on salmon and
 887 herring to increased fishing effort on groundfish and shellfish and individual quota fisheries that require
 888 enhanced monitoring and validation of catch.

889 In 2010, the estimated average value of all commercial fisheries in Haida Gwaii waters was \$83.4 million
 890 annually, accounting for about 22% of BC’s landed value. The three most economically valuable fisheries
 891 are sablefish (\$27.8 million), halibut longline (\$23.3 million), and Dungeness crab (\$16.4 million) totalling
 892 over 80% of the landed value of all Haida Gwaii catch. With the exception of the razor clam fishery and
 893 the herring spawn and kelp fishery, however, there are currently no other fisheries that have high
 894 community participation on Haida Gwaii. Only a small percentage of the catch is currently processed on
 895 Haida Gwaii. Due to these low levels of local participation and activity, economic linkages to local
 896 businesses are relatively weak compared to the overall contribution to the BC economy. In particular,
 897 seafood processors, marine-related merchants and service providers have experienced reduced revenue
 898 and employment opportunities in Haida Gwaii communities.

899 Four objectives and associated strategies have been identified to support development of community-
 900 based fisheries on Haida Gwaii. Objectives and/or strategies related to the Community-based Fisheries
 901 Economy that are outside of provincial jurisdiction are summarized in Appendix 1. In Table 7-3 below, an
 902 asterisk (*) is used to denote where an objective has additional strategies listed in Appendix 1.

903

904 **Table 7-3. Community-Based Fisheries Economy - Management Issues, Objectives and Strategies**

7-3. COMMUNITY-BASED FISHERIES ECONOMY	
Issue 1: Declining local involvement in the fisheries economy.	
Obj 1.1	Increase community participation in fisheries processing and marketing.*
	<p>Strategy 1.1A Support opportunities for a community-based fisheries economy . <i>Examples – Infrastructure to support harvesting, marketing, quality standards for Haida Gwaii brand; support of local harvesters.</i></p> <p>Strategy 1.1B Promote local seafood processing opportunities and employment by Haida and other island residents in processing operations.</p>
Issue 2: Maximize the value of Haida Gwaii fisheries.	
Obj 2.1	Increase opportunities for local value-added products.
	<p>Strategy 2.1A Assess feasibility of local processing and marketing.</p> <p>Strategy 2.1B Provide incentives for local fishers to deliver locally and improve quality of the catch.</p> <p>Strategy 2.1C Support development of a Haida Gwaii brand and other products. <i>Examples – Support development of feasibility studies; marketing strategies such as standardized logos and packaging (identifiable Haida Gwaii seafood products) and business plans.</i></p> <p>Strategy 2.1D Investigate the potential for new markets and new products for the Haida Gwaii fisheries economy. <i>Examples – custom processing, smoked fish products, Haida fish products, custom canning, development of new markets such as supplying high quality razor clam products (fresh or frozen) for restaurant industry, investigating new products and markets for Red Sea Urchin</i></p> <p>Strategy 2.1E Support investment and partnership opportunities related to the development of infrastructure essential for maintenance and growth of local fishing. <i>Examples – Moorage, fuel (access and cost), processors/buyers, ice and services</i></p>
Issue 3: Capturing local economic benefits from fisheries on Haida Gwaii.	
Obj 3.1	Increase community participation in, and local economic benefits from, sustainable fishing activities.*
	<p>Strategy 3.1A Work with others to encourage sustainable fisheries certification for fisheries originating in Haida Gwaii. <i>Examples – Marine Stewardship Council or locally developed Haida Gwaii certification; other certification or traceability programs (i.e., www.thisfish.ca)</i></p> <p>Strategy 3.1B Encourage local purchasing and processing by fishing lodges and charter operations.</p>
Obj 3.2	Support salmon enhancement projects on Haida Gwaii if appropriate.*
Obj 3.3	Increase local skill development and capacity in commercial fisheries.
	<p>Strategy 3.3A Work with industry partners and other agencies to identify commercial fishery training needs and provide training opportunities in marine-support industries. <i>Examples – Upgrading and entry level training, boat operator and deckhand certification, business administration, boat building, shipwrights, diesel mechanics, welding, electronics and refrigeration</i></p>

7-3. COMMUNITY-BASED FISHERIES ECONOMY	
	Strategy 3.3B Develop and seek support from industry associations and others for youth mentorship and apprentice programs with commercial fishermen in Haida Gwaii waters.
	Strategy 3.3C Support business development related to the marine sector. <i>Examples – Specialty boat-building, marine-related trades.</i>

* See Appendix 1 for strategies outside of provincial jurisdiction.

905

7.4 Marine Research and Monitoring

906 Marine research and monitoring consists of services supporting the study, management and use of
907 marine resources, and is fundamentally important to the successful application of ecosystem-based
908 management and the implementation of this Marine Plan. Federal and provincial agencies and CHN
909 programs make up the majority of this sector on Haida Gwaii. More specifically, the island-based sector
910 is primarily comprised of the CHN Haida Fisheries Program, Gwaii Haanas, Fisheries and Oceans Canada,
911 BC Parks, and Canada Coast Guard. This work includes monitoring of commercial, recreational and Haida
912 fisheries, fisheries surveys and stock assessment, recovery planning for species at risk such as abalone
913 and killer whales, monitoring ship traffic, and emergency response. The Canadian Wildlife Service also
914 conducts seabird research on the archipelago. The sector as a whole employs over 60 people, half of
915 which are part-time positions (most part-time employees work seasonally for the Haida Fisheries
916 Program).

917 Non-government organizations are also involved in research and monitoring. A number of universities
918 from BC and abroad have also conducted research programs and studies in the waters surrounding
919 Haida Gwaii. Involvement of local communities and the emergence of citizen science provide further
920 avenues to increase research and monitoring activities. Interest in research and monitoring activities
921 has prompted discussion of a marine research facility on Haida Gwaii that could play a lead role in
922 marine research and provide research facilities and equipment to Canadian and international scientists,
923 as well as university and public education programs.

924 Two objectives and associated strategies have been identified to support improved marine research and
925 monitoring on Haida Gwaii.

926

927 **Table 7-4. Marine Research and Monitoring - Management Issues, Objectives and Strategies**

7-4. MARINE RESEARCH AND MONITORING	
Issue 1: Diverse opportunities for research and need for sustained monitoring to meet conservation and EBM mandates.	
Obj 1.1	Increase opportunities for research and monitoring on Haida Gwaii.
	Strategy 1.1A Document existing research and ecological monitoring projects to establish a baseline of current activity and provide periodic updates.
	Strategy 1.1B Work with relevant agencies to support development of monitoring programs to facilitate implementation of ecosystem-based management initiatives, including the Haida Gwaii Marine Plan and linkages with terrestrial EBM programs where appropriate.
	Strategy 1.1C Work with relevant agencies to support development of research projects to facilitate implementation of ecosystem-based management initiatives, including the Haida Gwaii Marine Plan and linkages with terrestrial EBM programs where appropriate.
	Strategy 1.1D Assess the feasibility of a Haida Gwaii research institute to improve understanding of Haida Gwaii ecosystems.
	Strategy 1.1E Explore potential for increasing “research tourism” opportunities on Haida Gwaii.
	Strategy 1.1F Explore opportunities to create a fund to support research and monitoring projects.
Issue 2: Opportunities to increase local involvement in monitoring and research.	
Obj 2.1	Increase local capacity for environmental and activity monitoring.
	Strategy 2.1A Increase local capacity for participating in Haida Gwaii research and monitoring activities. <i>Examples – Training and skill development, Coastal Watchmen Programs, engagement of local fishing fleet and tourism operators, citizen science</i>

928

929

7.5 Marine-based Renewable Energy

930 The ocean offers renewable energy sources, including tidal, wind and wave power. On Haida Gwaii,
 931 marine-based energy development may contribute to more sustainable communities and a diversified
 932 local economy, as well as reduce reliance on fossil fuels. A marine wind-farm project located in north-
 933 west Hecate Strait was approved through the BC and federal environmental assessment processes but
 934 was not successful at securing a contract from BC Hydro (Haida citizens also rejected a proposal to joint
 935 venture in the project). Despite this, Hecate Strait remains an area with high potential for offshore wind
 936 energy development in the future. Tidal energy also has potential in Haida Gwaii. In 2008 the BC
 937 Government completed a feasibility study that identified several potential tidal energy sites in Masset
 938 Inlet.

939 Coastal First Nations (including the CHN) and the Province of BC signed a reconciliation protocol in 2009
 940 that included a commitment to develop an Alternative Energy Action Plan to advance the development
 941 of alternative energy projects on the North Coast, Central Coast and Haida Gwaii. In the CHN-BC
 942 *Kunst'aa Guu – Kunst'Aayah Reconciliation Protocol* (2009), both parties also agreed to continue
 943 discussions on sharing of additional emission reduction opportunities for renewable energy on Haida
 944 Gwaii. Furthermore, a Haida Gwaii Community Electricity Plan was completed in 2008. It makes nine
 945 recommendations, including creation of an Island Energy Plan to address broad energy issues such as
 946 transportation, heating fuel and fuel switching. In 2012 the Island Energy Plan was completed, focusing
 947 on g and associated strategies have been identified to support development of marine-based energy on
 948 Haida Gwaii.

949

950 **Table 7-5. Marine-Based Renewable Energy - Management Issues, Objectives and Strategies**

7-5. MARINE-BASED RENEWABLE ENERGY	
Issue 1: Opportunities for marine-based alternative energy development.	
Obj 1.1	Assess opportunities for marine alternative energy and encourage development in suitable locations.
	Strategy 1.1A Work with relevant agencies to identify and support suitable areas for marine alternative energy development through spatial planning and ecological evaluation.
Issue 2: Capturing local economic benefits from future marine-based energy development	
Obj 2.1	Ensure opportunities and benefits from marine energy development for local communities.
	Strategy 2.1A Encourage a comprehensive and integrated process for marine-based energy project selection. <i>Example – Participation of BC, Haida Nation and BC Hydro in strategic planning and project</i>

7-5. MARINE-BASED RENEWABLE ENERGY	
	<i>selection</i>
	Strategy 2.1B Encourage all new marine-based energy projects to benefit Haida Gwaii communities through job creation, training and commitments to meet local energy demands.
	Strategy 2.1C Implement benefit-sharing agreements with the Haida Nation from all new commercial-scale, marine-based energy generation projects.
Issue 3: Need for an integrated approach to marine-based energy development	
Obj 3.1	Ensure a coordinated and integrated approach for future marine-based energy development.
	Strategy 3.1A Implement the Island Energy Plan for Haida Gwaii.
	Strategy 3.1B Continue to implement recommendations in the Haida Gwaii Electricity Plan as appropriate, including assessment of the feasibility of potential marine-based energy projects.

951

DRAFT

952 **8. HAIDA GWAII SPATIAL ZONING**

953 **8.1 Spatial Zoning Overview**

954 As part of the Haida Gwaii Marine Plan process, the CHN and Province of BC have recommended
955 candidates for Special Management Zones (SMZs) and Protection Management Zones (PMZs). All
956 remaining areas outside of these management zones are within the General Management Zone (GMZ).
957 Protection Management Zones candidates will be brought forward to the Canada-BC-First Nations MPA
958 Network Strategy process, while proposed SMZs will be established as policy and will be used to provide
959 guidance to resource use decision-makers when making tenuring and other marine use decisions.

960 The CHN has been working on developing spatial zoning for Haida Gwaii since 2006. Through the Haida
961 Marine Work Group (HMWG), special features and values, acceptable uses, and existing or potential
962 resource conflicts were evaluated. Using the best available traditional, local and scientific knowledge,
963 HMWG members then worked to identify areas of importance and concern, including areas suited for
964 protection as well as special management areas that have potential for current or future marine
965 economic development.

966 As sub-regional, CHN-led planning became a part of the government-to-government MaPP process, the
967 proposed spatial areas from the HMWG process were reviewed by the Province and revised
968 collaboratively with CHN to create a jointly agreed set of SMZ and PMZ candidates for Haida Gwaii.
969 Spatial data sources used during the HMWG process and subsequent analysis and revision by Provincial
970 and CHN technical staff are provided in Appendix 4. The sub-regional Haida Gwaii Marine Advisory
971 Committee also reviewed and provided advice on SMZ and PMZ candidates based on their knowledge
972 and expertise.

973 The overall intent of the zoning exercise is to identify and map a diversity of values, define the relevant
974 activities and recommend appropriate management actions as it relates to provincially regulated and
975 Haida managed activities. Further advancement of any zones in the context of MPA or MPA networks
976 will go through the appropriate processes with the relevant agencies.

977 A detailed summary of the spatial zoning process for the Haida Gwaii draft Marine Plan, including a
978 summary of key values for each candidate SMZ and PMZ, is provided in the companion report: *Haida*
979 *Gwaii Marine Plan: Delineation, Evaluation and Zoning of PMZ/SMZ Candidates* (draft V1.3 March 11
980 2014).

981 **8.2 MaPP Zoning Framework**

982 Marine spatial zoning for Haida Gwaii has been based on the MaPP Zoning Framework, which is
983 consistently applied across all four of the MaPP planning sub-regions. There are three overarching zone
984 types in the MaPP Zoning Framework (Table 8-1). Within the SMZ and PMZ zones categories there are
985 range of sub-zones applied (aquaculture and alternative energy sub-zones in case of SMZs, and
986 International Union of Conservation network (IUCN) categories in case of PMZs). Spatial zoning for
987 Gwaii Haanas area is being addressed through a separate planning process and therefore is not included
988 in MaPP zone descriptions and analyses.

989 **Table 8-1. MaPP Zoning Framework - Zone Type, Description and Objective**

Zone Type	Description	Objective
General Management Zone (GMZ)	Allocates space for a wide range of sustainable marine uses and activities using an EBM framework. The GMZ recognizes that many coastal or marine areas have no over-arching priorities for uses or activities, and that a large number of activities do not have spatial or temporal conflicts. Where conflicts may occur, they can be addressed through proper management prescriptions in combination with the General Management Direction (i.e., general objectives and strategies) including prohibitions and exceptions for activities that occur on the seabed, pelagic or surface areas.	To manage for a variety of co-existing sustainable marine uses and activities that adhere to ecosystem-based management (EBM) principles; multiple uses and activities are permitted where compatible in time and space.
Special Management Zone (SMZ)	Allocates space for high priority and/or high potential sustainable marine uses and activities including economic development and/or cultural uses and activities that require specific environmental conditions or locations. To avoid temporal or spatial conflicts and competition with certain other uses and activities, special management prescriptions are applied in addition to the General Management Direction (i.e., general objectives and strategies).	To manage for one or more identified high priority and/or high potential sustainable marine uses or activities. Additional uses and activities are permitted only where compatible in time and space with the high priority and/or high potential use or activity.
Protection Management Zone (PMZ)	Allocates space primarily for conservation purposes or objectives, and may serve as a basis for protecting localized conservation values. Furthermore, these areas may be identified or recommended in the context of a robust legislated network of marine protected areas under the applicable provincial or federal legislation.	To protect the full range of values that marine environments provide with a primary emphasis on maintaining marine biodiversity, ecological representation and special features (e.g., sponge reefs, seamounts, pinniped haul out sites or rookeries, or significant foraging grounds for seabirds)

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991 Protection Management Zones allocate space primarily for conservation purposes in order to protect

992 the full range of values in marine environments. The identification of PMZ candidates was guided by the

993 Haida Gwaii Marine Vision and Goals outlined in Section 3.2, which are consistent with *Towards a*

994 *Marine Use Plan* (CHN 2007) and the draft *Canada – BC Marine Protected Areas Network Strategy* (May

995 27, 2011). The spatial zoning also reflects diverse interests and trade-offs related to current economic,

996 cultural and social uses. PMZ candidates were situated to avoid overlap with any existing tenured
997 activities that were inconsistent with PMZ objectives.

998 The benefits of marine protected areas have been demonstrated through numerous scientific studies
999 around the world. Benefits include increased ecological diversity and resilience to climate change and
1000 other stressors, increased species richness, biomass and abundance, increased knowledge and
1001 understanding of marine systems through the provision of natural benchmarks, and improvements to
1002 local economies over the longer term e.g., through increased tourism revenue and improved catches in
1003 adjacent areas for some species (“spillover effect”).

1004 Each PMZ type aligns with a category described in the *Guidelines for Applying the IUCN Protected Area*
1005 *Management Categories to Marine Protected Areas*. The Guidelines do not require all IUCN categories
1006 to be used in a given planning region. Those used in the Haida Gwaii Marine Plan area are described
1007 below. For a complete description of all IUCN categories see the *MaPP Zoning Framework*.

1008 **Category Ib** – usually large unmodified or slightly modified areas, retaining their natural character
1009 and influence, without permanent or significant human habitation, which are protected and
1010 managed so as to preserve their natural condition.

1011 **Category II** – large natural or near natural areas set aside to protect large-scale ecological processes,
1012 along with the complement of species and ecosystems characteristics of the area, which also provide
1013 a foundation for environmentally and culturally compatible spiritual, scientific, educational,
1014 recreational and visitor opportunities.

1015 **Category III** – set aside to protect a specific natural monument, which can be a landform, seamount,
1016 submarine cavern, geologic features such as a cave or even a living component such as a specific
1017 coralline feature. They are generally quite small protected areas and often have high visitor value.

1018 **Category IV** – aim to protect particular species or habitats and management reflects this priority.
1019 Many category IV protected areas will need regular, active interventions to address the requirements
1020 of particular species or to maintain habitats, but this is not a requirement of the category.

1021 **Category V** - areas where the interaction of people and nature over time has produced an area of
1022 distinct character and significant ecological, biological, cultural and scenic value and where
1023 safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its
1024 associated nature conservation and other values.

1025 **Category VI** - areas that conserve ecosystems and habitats, together with associated cultural values
1026 and traditional natural resource management systems. They are generally large, with most of the
1027 area in a natural condition, where a proportion is under low-level non-industrial sustainable natural
1028 resource management and where such use of natural resources compatible with nature conservation
1029 is seen as one of the main aims of the area.

1030 As part of the MaPP zoning framework, there are associated *Recommended Use and Activities Tables*
1031 for each of the GMZ, SMZ and PMZ candidates that identify activities that are considered acceptable,
1032 conditionally acceptable, or not acceptable for each zone. For every identified activity that is
1033 considered conditionally acceptable, condition statements are provided (Table 8-2). Recommended

1034 uses and activities within SMZs and PMZs will be considered during screening of tenure applications
 1035 for provincially and Haida managed marine activities and uses. For all areas, Haida traditional uses
 1036 continue in accordance with legal obligations, including practices for food, social and ceremonial
 1037 purposes. Definitions for recommended uses and activities are provided in Appendix 7.

1038 **Table 8-2. Recommended Use and Activity Type Descriptions**

Use Type *	Symbol	Use Type Description
Acceptable	✓	Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.
Conditionally Acceptable/Special Conditions	O	The use/activity is acceptable provided it is consistent with (adheres to) the plan conditions. Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.
Not Acceptable	X	Uses and activities are considered not acceptable and should not be approved by the appropriate management body(ies).

1039 * Absence of a use or activity in this table should not imply that the use or activity is of no interest or is recommended. The
 1040 reader should contact the appropriate management body(ies) for clarification in such circumstances.

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1044 **8.3 Boundary Delineation and Zone Type Evaluation Criteria**

1045 A variety of factors were considered and applied when determining proposed spatial zoning boundaries
 1046 (Table 8-3).

1047 **Table 8-3. Boundary Delineation and Zone Type Evaluation Criteria**

Factor	Application
Existing designations	Aligned with existing CHN, Federal and Provincial marine zoning/designations where appropriate. <i>Examples: CHN/BC Protected Areas, BC Ecological Reserves, Federal Rockfish Conservation Areas, CHN/Federal Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site</i>
Ecological values	Drawn to capture ecological values and specific ecological features of interest. <i>Examples: Eelgrass and kelp beds, consistent herring spawning areas, estuaries, areas of high occurrence of coral and sponge, bird colonies</i>
Cultural and traditional use values	Drawn to capture important cultural and traditional use areas requiring spatial protection. Cultural and traditional use data included the Haida Marine Traditional Knowledge (HMTK) Study and other archaeological data sets. <i>Examples: Sensitive locations including their cultural and spiritual importance important food gathering areas, location of village sites</i>
Current uses and activities	Drawn to minimize conflict and ensure continued economic opportunities based on evaluation of current uses and activities. <i>Examples: Available commercial fishing data, existing tenures, known high value recreational fishing areas</i>
Future uses and activities	Drawn to facilitate future economic opportunities based on evaluation of potential future uses and activities. <i>Examples: High value sites for marine based alternative energy, shellfish aquaculture capability (some species)</i>
Adjacent land use	Considered adjacent land use to maximize compatibility between proposed marine zoning and terrestrial areas. <i>Examples: Private land, existing terrestrial tenures, parks and protected areas</i>
Results of Marxan analyses	Informed by results from regional and sub-regional Marxan analyses that identified areas of high conservation value and representative areas of biodiversity using British Columbia Marine Conservation Analysis (BCMCA) spatial data.
Buffers	Buffer zones, areas of lower restriction surrounding core areas of higher restriction, have been applied in some instances to provide additional protection while still allowing some activities to occur
Ease of identification, navigation and management	Designed to be “user-friendly” in order to facilitate identification and navigation on the water and for compliance and enforcement purposes. <i>Examples: Straight lines, jaws of land (boundary established between two visible terrestrial points), consistent distance offsets (e.g., ribbon boundary - 100m buffer around an island with nesting seabird colonies)</i>

1048 For each SMZ or PMZ candidate, an evaluation process was also undertaken to determine the most
 1049 appropriate zone type and associated acceptable uses. Table 8-4 describes the evaluation criteria
 1050 utilized for each proposed zone.

1051

1052 **Table 8-4. Criteria for Evaluating SMZ and PMZ Candidates.**

Evaluation Criteria	Description
Objective	Ecological, cultural, social and/or economic purpose for establishing the zone.
Ecological Values	Specific ecological values maintained or enhanced by zone establishment
Cultural Values	Specific cultural values maintained or enhanced by zone establishment
Economic Values (SMZs only)	Specific economic values maintained or enhanced by zone establishment
Current Zoning	Overlap with existing zoning designations (eg, CHN/BC protected areas, Rockfish Conservation Areas (RCAs), local zoning by-laws)
Conflicting Uses	Activities currently occurring which may be displaced
Existing Tenures	Potential impacts on existing tenure holders
Adjacent Land Use	Adjacent land use/zoning that may be impacted by designation (eg, tenures, private land, park/protected areas etc)
Adjacent Marine Designations	Adjacent marine designations/zoning that may be impacted by designation (eg, RCAs etc)
Marxan Results	Consistency with Marxan results (PMZs only)
Linkages to HGMUP Objectives and Strategies	Consistency and linkages with objectives and strategies identified in the draft Haida Gwaii Marine Plan General Management Direction

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1056 **8.4 Haida Gwaii Marine Plan Zoning Summary**

1057 Within the Haida Gwaii draft Marine Plan area, a total of 73 PMZs and 5 SMZs are proposed. Table 8-5
 1058 summarizes the proposed areas including total of each zone type, total area coverage (km²), percentage
 1059 of Plan area, total length (km) of shoreline, and percentage of the Plan area shoreline. Information
 1060 about Gwaii Haanas is noted at the bottom of the table.

1061 **Table 8-5. Summary of Draft Marine Zones by Category Type, Length of Shoreline and Area**

Zone Type	Category	# Candidate Zones	Total Length (km)	% Haida Gwaii Shoreline	Total Area (km ²)	% Planning Area
PMZ High Protection	IUCN Ib	37	405	8.7%	3937	8.6%
	IUCN II	10	168	3.6%	120	0.3%
	IUCN III	2	12	0.3%	55	0.1%
Subtotal – High		49	585	12.6%	4112	9.0%
PMZ Low Protection	IUCN IV	17	512	11.0%	3075	6.7%
	IUCN V	3	572	12.3%	748	1.6%
	IUCN VI	4	620	13.3%	661	1.4%
Subtotal – Low		24	1704	36.6%	4485	9.8%
TOTAL PMZ		73	2289	49.1%	8597	18.7%
SMZ	Shellfish Aquaculture Marine-based	4	130	2.8%	65	0.1%
	Alternative Energy	1	9	0.2%	596	1.3%
TOTAL SMZ		5	139	3.0%	661	1.4%
GMZ			475	10.2%	33195	72.3%
Gwaii Haanas NMCAR & HHS*	Other		1759	37.7%	3464	7.5%

1062 * Gwaii Haanas National Marine Conservation Areas Reserve & Haida Heritage Site is included in the Haida Gwaii sub-region
 1063 but spatial zoning for this area is occurring through a separate planning process.

1064 Table 8-6 summarizes the nearshore ecological values captured within each of the candidates for PMZs
 1065 by IUCN category. All of the ecological features listed in these tables were considered when identifying
 1066 proposed PMZ candidates.

1067 Table 8-7 summarizes representation of broad habitat classifications, including marine ecosections,
 1068 oceanographic regions, corals and sponges, high rugosity and high tidal current, in proposed PMZs.

1069 The *British Columbia Marine Ecosystem Classification* (BCMEC) was developed to support marine
1070 planning, conservation and protection objectives and is used to identify areas of high conservation
1071 value and representative areas of biodiversity.

1072 *DFO Oceanographic Regions* are ecologically and biologically significant areas (EBSAs) that were
1073 identified based on uniqueness, aggregation of marine values, fitness consequences, naturalness
1074 and resilience to disturbance.

1075 *Parks Canada Oceanographic Regions* are based on a variety of physical oceanographic
1076 characteristics including: sea surface salinity and temperature in the summer and winter;
1077 chlorophyll concentration; and vertical stratification in the water column. Rugosity is a measure of
1078 the roughness of seafloor terrain and areas of high rugosity are often indicative of areas of high
1079 biodiversity, while areas of high tidal current are often associated with areas of high productivity.

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1083 **Table 8-6. Summary of nearshore ecological values captured in Proposed Protection Management Zones**

1084 Note: The column "Total in HG planning space" includes values within Gwaii Haanas.

	Total in HG planning space	PMZ - IUCN Categories						subtotal lower protection	TOTAL in all PMZ	
		Ib	II	III	subtotal higher protection	IV	V			VI
Estuaries (Pacific Estuary Conservation Program)										
# higher ranked (1, 2 or 3) - importance to waterfowl	26	38.5%	0.0%	0.0%	38.5%	3.8%	19.2%	23.1%	46.2%	84.6%
# lower ranked (4 or 5) - importance to waterfowl	21	19.0%	9.5%	0.0%	28.6%	14.3%	19.0%	14.3%	47.6%	76.2%
Salmon River Estuaries - Riparian Fish Forest (Gowgaia Institute)										
# Estuaries - Most Salmon (RFF ranking)	25	44.0%	8.0%	0.0%	52.0%	8.0%	12.0%	0.0%	20.0%	72.0%
# Estuaries - Many Salmon (RFF Ranking)	47	10.6%	4.3%	0.0%	14.9%	4.3%	25.5%	25.5%	55.3%	70.2%
# Estuaries - Some Salmon (RFF Ranking)	377	6.6%	3.4%	0.0%	10.1%	9.8%	15.1%	18.0%	43.0%	53.1%
Herring - Cumulative Herring Spawn Index (DFO)										
length kms	627	4.8%	1.4%	0.3%	6.5%	8.1%	13.4%	4.1%	25.7%	32.2%
length kms of top 30% (Vital, Major, High) BC Rank	223	3.6%	4.0%	0.0%	7.6%	6.3%	4.5%	3.6%	14.3%	22.0%
Eelgrass and Kelp (BCMCA and BC Shorezone)										
<i>Eelgrass - Zostera marina</i>										
Priority Eelgrass (polygon) BCMCA - Area km ²	18.4	44.3%	0.0%	0.1%	44.5%	9.7%	32.0%	0.0%	41.6%	86.1%
Eelgrass (polygon) BCMCA - Area km ²	25.2	38.7%	0.8%	0.1%	39.6%	7.6%	25.0%	0.2%	32.8%	72.4%
Eelgrass, Shorezone - Continuous (length of shoreline)	407	7.3%	0.9%	0.2%	8.4%	14.7%	28.3%	2.9%	45.9%	54.3%
Eelgrass, Shorezone - Patchy (length of shoreline)	572	5.3%	3.6%	0.3%	9.2%	12.1%	21.5%	3.7%	37.3%	46.5%
<i>Bull Kelp - Nereocystis luetkeana</i>										
Bull Kelp (polygon) BCMCA - Area km ²	15.9	14.5%	12.1%	0.0%	26.6%	17.4%	2.2%	37.5%	57.1%	83.6%
Bull Kelp, Shorezone - Continuous (length of shoreline)	435	6.3%	2.4%	0.0%	8.7%	6.6%	0.9%	16.1%	23.6%	32.3%
Bull Kelp, Shorezone - Patchy (length of shoreline)	886	4.6%	5.7%	0.0%	10.3%	6.5%	7.2%	13.2%	26.9%	37.2%
<i>Giant Kelp - Macrocystis integrifolia</i>										
Giant Kelp (polygon) BCMCA - Area km ²	11.4	13.0%	15.2%	0.2%	28.4%	4.6%	1.9%	9.2%	15.7%	44.1%
Giant Kelp, Shorezone - Continuous (length of shoreline)	252	4.2%	13.0%	0.0%	17.2%	8.6%	1.0%	4.2%	13.8%	31.1%
Giant Kelp, Shorezone - Patchy (length of shoreline)	542	3.6%	2.7%	0.0%	6.4%	8.7%	3.8%	8.9%	21.4%	27.8%
<i>General Kelp</i>										
General Kelp (polygon) BCMCA - Area km ²	93.1	7.3%	5.2%	0.0%	12.4%	13.4%	2.6%	11.5%	27.6%	40.0%
Modeled Inshore Rockfish Habitat (DFO)										
Area km ²	2347	5.5%	1.7%	0.1%	7.3%	8.8%	7.7%	8.1%	24.5%	31.8%
Pinnipeds (Parks Canada - Gwaii Haanas)										
# Seal Haulouts	91	5.5%	2.2%	1.1%	8.8%	9.9%	5.5%	3.3%	18.7%	27.5%
# Sea Lion Haulouts	21	23.8%	0.0%	4.8%	28.6%	9.5%	9.5%	14.3%	33.3%	61.9%
Important Bird Areas (Bird Studies Canada/Nature Canada)										
Area km ²	2939	7.4%	0.5%	1.9%	9.8%	18.2%	7.6%	9.2%	35.0%	44.8%
Listed Seabird Colonies* (BCMCA from Parks Canada and Canadian Wildlife Service data)										
Colony Presence (# species - 6 species considered)	6	5	2	0	5	2	0	5	5	6
Colony Foraging Area Presence (# species - 6 species considered)	6	6	5	0	6	4	1	6	6	6

* listed seabird colonies included: Ancient Murrelet, Cassin's Auklet, Horned Puffin, Tufted Puffin, Common Murre, and Pelagic Cormorant

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Table 8-7. Representation of BC Marine Ecosystem Classification ecoregions, DFO EBSAs and Parks Canada Oceanographic Regions within Proposed PMZs

Note: The column "Area (km²) in HG planning space" includes values within Gwaii Haanas

	Area (km ²) in HG Planning Space	PMZ - IUCN Categories								TOTAL in all PMZ
		Ib	II	III	subtotal higher protection	IV	V	VI	subtotal lower protection	
Ecoregions - BCMEC										
Dixon Entrance	9598	6.0%	0.4%	0.1%	6.5%	6.5%	2.7%	3.8%	13.0%	19.5%
Hecate Strait	7589	6.2%	0.1%	0.6%	6.9%	7.0%	3.2%	0.0%	10.2%	17.1%
Queen Charlotte Sound	10892	6.0%	0.0%	0.0%	6.0%	7.3%	0.0%	0.0%	7.3%	13.3%
Continental Slope	14597	12.4%	0.5%	0.0%	12.9%	5.4%	1.7%	2.0%	9.2%	22.1%
Subarctic Pacific	1203	23.3%	0.0%	0.0%	23.3%	0.0%	0.0%	0.0%	0.0%	23.3%
Transitional Pacific	2038	1.6%	0.0%	0.0%	1.6%	16.3%	0.0%	0.0%	16.3%	17.9%
Oceanographic Regions - DFO EBSA										
Hecate Strait Front	1707	6.6%	0.0%	0.2%	6.9%	0.0%	0.0%	0.0%	0.0%	6.9%
McIntyre Bay	1408	0.0%	1.1%	1.1%	2.2%	0.0%	0.4%	1.7%	2.1%	4.3%
Cape St. James	3371	12.0%	0.0%	0.0%	12.0%	9.8%	0.0%	0.0%	9.8%	21.9%
Dogfish Banks	2400	13.3%	0.0%	1.4%	14.8%	3.4%	3.3%	0.0%	6.7%	21.5%
Learmouth Bank	221	51.6%	0.0%	0.0%	51.6%	48.4%	0.0%	0.0%	48.4%	100.0%
Shelf Break	16216	11.6%	0.0%	0.0%	11.6%	8.5%	0.0%	0.0%	8.5%	20.0%
Corals and Sponges - DFO EBSA										
	2775	5.4%	0.0%	0.0%	5.4%	42.7%	0.0%	0.2%	43.0%	48.4%
Oceanographic Regions - Parks Canada										
Cape St. James Tidal Mixing	2289	17.7%	0.0%	0.0%	17.7%	14.5%	0.0%	0.0%	14.5%	32.2%
Coastal Mixing	13136	11.5%	0.0%	0.0%	11.5%	10.9%	0.0%	0.0%	10.9%	22.4%
SE Alaska Mixing	6610	6.7%	0.1%	0.0%	6.8%	8.0%	0.0%	4.1%	12.1%	18.9%
Dixon Entrance Coastal Flow	3665	6.8%	0.1%	0.5%	7.4%	0.0%	0.0%	0.1%	0.1%	7.5%
West Coast QCI Upwelling	5236	7.9%	1.1%	0.0%	9.0%	0.9%	0.4%	1.8%	3.1%	12.1%
Low Flow Nearshore	2699	3.8%	2.0%	0.0%	5.8%	11.9%	24.7%	10.7%	47.4%	53.1%
Dogfish Bank Frontal	2367	11.0%	0.0%	0.0%	11.0%	3.3%	2.4%	0.0%	5.6%	16.6%
Rose Spit Eddy	918	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%	0.0%	0.0%	4.0%
Hecate Strait	8996	4.9%	0.0%	0.0%	4.9%	3.7%	0.0%	0.0%	3.7%	8.7%
Other										
High Tidal Current - DFO/BCMCA	1179	19.6%	0.3%	3.5%	23.3%	12.8%	0.0%	2.1%	14.9%	38.3%
High Rugosity - Parks Canada/BCMCA	10006	11.0%	0.3%	0.0%	11.4%	7.6%	1.3%	1.7%	10.6%	21.9%

1089

1090 **8.5 Individual Marine Zones**

1091 For the purposes of presenting the marine spatial plan, the waters around Haida Gwaii have been
1092 divided into six areas:

- 1093 • Masset Inlet
- 1094 • Skidegate Inlet
- 1095 • Dixon Entrance
- 1096 • West Coast
- 1097 • Hecate North
- 1098 • Gwaii Haanas Offshore and Northwest Queen Charlotte Sound

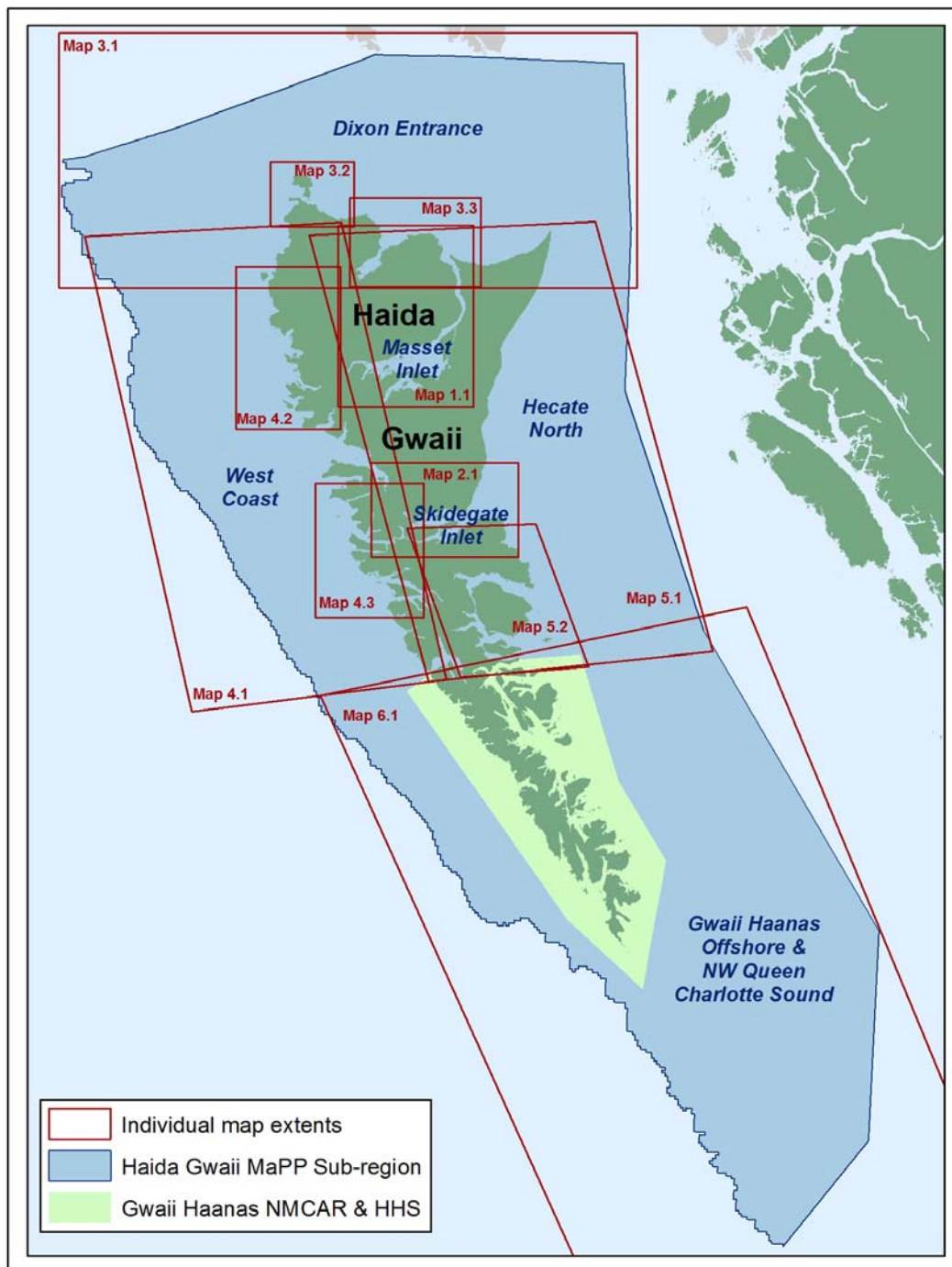
1099 Additional maps have been included to provide detail views of portions of the six areas where
1100 necessary. Figure 8-1 illustrates the extents of zoning maps presented in the spatial plan.

1101 Haida place names for proposed Marine Zones are currently being reviewed and will be incorporated
1102 into the final Haida Gwaii Marine Plan and supporting background documents.

1103

1104

1105 **Figure 8-1. Key map showing the extents of individual maps presented in the spatial plan**



1106

1107 **8.5.1 Masset Inlet**

1108 *[Herring spawn] Around Juskatla—Juskatla Inlet and Shannon Bay and all through the inlet. I*
1109 *heard the seals follow them in there late June and early July. I used to seal hunt up there...*
1110 *the seals would surface and their face was just covered with...with roe, you know, k'aaw.*
1111 *And there was lots for them to eat up there—a lot of herring up there. The water's murky*
1112 *red; you can't see but you see the eagles sitting along the rock just picking the herring out of*
1113 *the water. ... They just sit there, and reach out and grab a herring. Lot of herring go up*
1114 *there. (Percy Williams, 1998)*

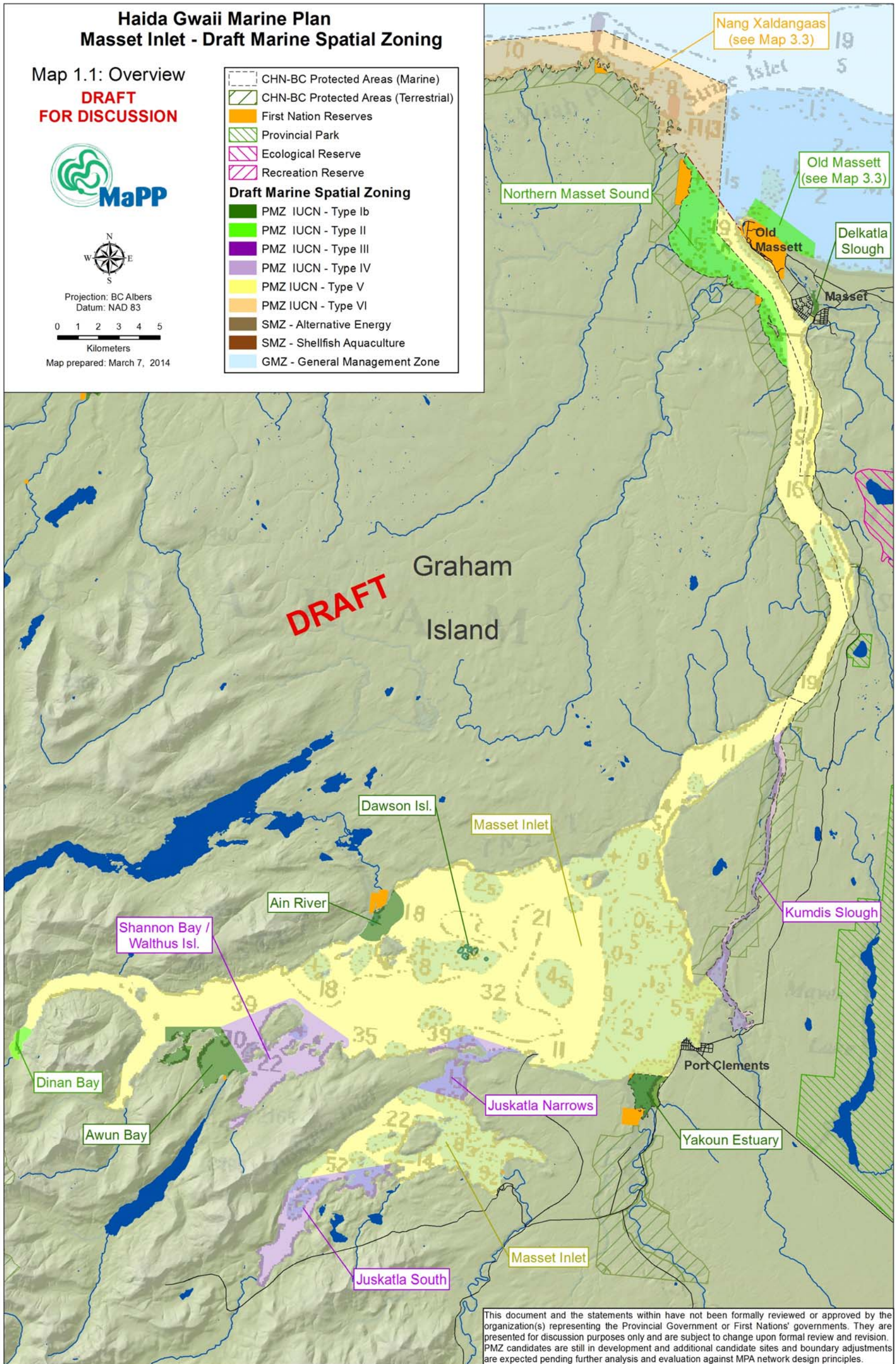
1115 Masset Inlet is a place of unique oceanography with important habitat areas for marine birds,
1116 waterfowl, and marine fish and invertebrates. Juvenile sablefish rear in kelp forests, juvenile salmon
1117 and Dungeness Crab rear in estuaries and eelgrass meadows, herring spawn along its shores, and it is
1118 home to the only endemic run of Chinook Salmon on Haida Gwaii. An important traditional fishing and
1119 gathering place for the Haida, many villages and seasonal camps punctuate the shores of Masset Inlet
1120 and its rich marine resources are important to protect for Haida traditional access and culture. Haida use
1121 and activities are prevalent throughout Masset Inlet including seasonal activities at many of the
1122 important salmon streams that are located in the area.

1123 Due to its proximity to several communities, Masset Inlet has a relatively high level of marine traffic
1124 including a large recreational fishing fleet, self-loading log barges, fuel barges, supply barges, float
1125 planes, and commercial fishing vessels. The primary log sorting and loading area for the north end is
1126 located in Juskatla with traffic running out through Masset Sound to Dixon Entrance.

1127 Map 1.1 is an overview map of Masset Inlet. Masset Inlet in its entirety is proposed as a Category V
1128 PMZ as it is recognized that the inlet would benefit from an integrated management plan that considers
1129 both broader ecological interactions and the value and importance of the many human use activities
1130 that occur throughout the area. In addition, a total of 5 IUCN Type Ib, 2 IUCN Type II, 4 IUCN Type IV
1131 and 1 IUCN Type V PMZ candidates are identified within Masset Inlet. The category and objectives for
1132 each candidate zone are described in Table 8-8 and recommended uses and activities are listed in
1133 Table 8-9.

1134

1135 **Map 1.1: Overview of Masset Inlet, including Draft Marine Spatial Zoning**



1136

1137 **Table 8-8. Masset Inlet PMZ Candidates**

1138

Zone Name	PMZ / SMZ Category	Size (km²)	Management Objective(s) for Provincial and Haida values
Ain River	IUCN - Type Ib	2.5	Protection of the Ain River estuary and surrounding waters which are important both as staging areas for chum, sockeye, coho and pink salmon and for traditional Haida use.
Awun Bay	IUCN - Type Ib	5.8	Protection of Awun Bay and the Awun River estuary which are important chum and sockeye salmon areas and traditional use site for the Haida.
Dawson Islands	IUCN - Type Ib	0.4	Protection of seal haulouts, nesting seabirds and high value traditional use areas.
Delkatla Slough	IUCN - Type Ib	0.3	Protection of important wildlife area containing resident and migratory bird habitat.
Dinan Bay	IUCN - Type II	0.9	Protection of herring spawn area in need of habitat restoration.
Juskatla Narrows	IUCN - Type IV	5.0	Protection of kelp beds and eelgrass meadows, critical habitat to variety of marine species (including herring spawn) and traditional use values.
Juskatla South	IUCN - Type IV	9.0	Protection of important estuary (Datlaman river) and associated bay.
Kumdis Slough	IUCN - Type IV	4.9	Protection of eelgrass meadows, wetlands and estuary which provide critical habitat for a variety of marine species and important resident and migratory bird habitat.
Masset Inlet	IUCN - Type V	255.2	Protection of important estuaries, herring spawn and bullkelp habitat in the unique ecosystem of Masset Sound, an area used extensively by Haida for traditional use.
Northern Masset Sound	IUCN - Type II	14.4	Protection of area across from the village of Old Massett used extensively for traditional harvesting by Haida.
Shannon Bay - Walthus	IUCN - Type IV	14.0	Protection of identified killer whale rubbing area and representative habitat in Masset Inlet.
Yakoun Estuary	IUCN - Type Ib	2.3	Protection of Yakoun River estuary, containing significant eelgrass habitat, a staging area for all salmon species and an important location for traditional Haida use.

1139 **Table 8-9. Recommended Uses and Activities for Masset Inlet Proposed Marine Zones**

		Site Name											
		Ain River	Awun Bay	Dawson Isl.	Delkatla Slough	Yakoun Estuary	Dinan Bay	Northern Masset Sound	Juskatla Narrows	Juskatla South	Kumdis Slough	Shannon Bay / Walthus Isl.	Masset Inlet
		PMZ IUCN Ib					PMZ IUCN II		PMZ IUCN IV				PMZ IUCN V
Category	Marine Uses and Activities												
Aquaculture	Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	X	X	X	X	X	X	X	X	X	X	X	✓
	Off Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	X	X	X	X	X	X	X	X	X	X	X	✓
	Off-Bottom Aquaculture – Finfish	X	X	X	X	X	X	X	X	X	X	X	X
Energy	Renewable Energy Generation	X	X	X	X	X	X	X	O ^{2,4}	X	X	X	✓
Industry	Forestry Operations	X	X	X	X	X	X	X	X	X	X	X	✓
	Mining Operations	X	X	X	X	X	X	X	X	X	X	X	X
Infrastructure	Commercial and Recreational Anchorages	O ²	O ²	X	X	X	X	X	O ^{2,4}	O ^{2,4}	O ^{2,4}	O ^{2,4}	✓
	Float Homes	X	X	X	X	X	X	X	X	X	X	X	O ^{2,4}
	Floating Lodges	X	X	X	X	X	X	X	X	X	X	X	O ^{2,4}
	Level 1 Docks, Wharves & Facilities	O ^{2,3,4}	O ^{2,3,4}	X	X	O ^{2,3,4}	X	O ^{2,3,4}	O ^{2,4}	O ^{2,4}	O ^{2,4}	O ^{2,4}	✓
	Level 2 Docks, Wharves & Facilities	X	X	X	X	X	X	X	X	X	X	X	O ⁵
Recreation/ Tourism	Commercial Recreation and Tourism	O ^{2,4}	O ^{2,4}	O ²	O ²	O ^{2,4}	O ^{2,4}	O ^{2,4}	✓	✓	✓	✓	✓
	Public Recreation and Tourism	O ^{2,4}	O ^{2,4}	O ²	O ²	O ^{2,4}	O ^{2,4}	O ^{2,4}	✓	✓	✓	✓	✓
Research	Research	O ^{1,4}	O ^{1,4}	O ¹	O ¹	O ^{1,4}	O ^{1,4}	O ^{1,4}	✓	✓	✓	✓	✓
Utilities	Linear Utilities	X	X	X	X	X	X	X	O ²	O ²	O ²	O ²	✓
	Point Source Utilities	X	X	X	X	X	X	X	X	X	X	X	✓
Aquaculture	Aquaculture Licensing	Where a use/activity is outside provincial regulatory authority, the approval of that use/activity is subject to the decision-making process(es) of the responsible authorities. Absence of a use/activity in this table does not imply that activities were not considered or evaluated in the above recommendations, or that the use/activity is of no interest. Consistency with proposed IUCN designations is supported by the Council of Haida Nation and the Province of BC and conditional activities will be determined based on area-specific values.											
Fisheries	Commercial Fisheries												
	Recreational Fisheries: Guided and Non-Guided (Shellfish and Finfish)												
Transportation & Navigation	Transportation												
	Temporary Port Vessel Anchorage												

1140

Key:

Haida traditional uses, including practices for food, social, ceremonial and stewardship purposes, continue in accordance with legal obligations	
Acceptable: Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	✓
Conditionally Acceptable: The use/activity is acceptable provided it is consistent with (adheres to) the plan conditions. Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	O
Not Acceptable: Uses and activities are considered not acceptable and should not be approved by the appropriate management body(ies).	X
<p><i>*Absence of a use or activity in this table should not imply that the use or activity is of no interest or is acceptable. The reader should contact the appropriate management body(ies) for clarification in such circumstances.</i></p> <p>Note: This table does not alter the Council of Haida Nation and Province of BC referral obligations under existing agreements.</p>	

List of Conditional Statements

O¹: only research activities that are non-extractive and will not disturb sensitive or critical features and habitat are acceptable;

O²: must avoid disturbance of sensitive or critical features and habitat; site limitations to be identified in an approved Protection Management Plan

O³: infrastructure enabling Haida access to adjacent reserve lands permitted

O⁴: activity must be compatible with Haida cultural use of the area, including consideration of Haida activities and/or stewardship knowledge; site limitations to be identified in an approved Protection Management Plan

O⁵: infrastructure and associated activities must be compatible with vision and conservation objectives of protected area; site limitations to be identified in an approved Protection Management Plan

Additional Considerations

Ain River: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Awun Bay: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Dawson Island: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Delkatla Slough: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Yakoun Estuary: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Dinan Bay: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Northern Masset Sound: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Juskatla Narrows: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels, though it is noted that log barge loading at storage/handling facilities is an important activity in the area.

Juskatla South: Commercial value of salmon is high. Ecological and cultural concerns may be impacted by other commercial fisheries. Sensitive and/or critical features and associated habitats and/or cultural values may be impacted by recreational fishing activity. Sensitive or critical features and habitat may be impacted by large commercial vessels and smaller freight or log boom towing vessels.

Kumdis Slough: Ecological values may be impacted by commercial fisheries. Sensitive and/or critical features and associated habitats and/or cultural values may be impacted by recreational fishing activity. Sensitive or critical features and habitat may be impacted by large commercial vessels and smaller freight or log boom towing vessels. Ecological values may be impacted by anchoring.

Shannon Bay/Walthus Island: Ecological values may be impacted by commercial fisheries. Sensitive and/or critical features and associated habitats and/or cultural values may be impacted by recreational fishing activity. Sensitive or critical features and habitat may be negatively impacted by large commercial vessels, though it is noted that log barge loading at storage/handling facilities is an important activity in the area.

Masset Inlet: Commercial value of salmon is high. Ecological and cultural concerns may be impacted by other commercial fisheries. Temporary vessel anchorage by log and container barges have high economic value. Economic value of transportation activities in the area is high.

1142 **8.5.2 Skidegate Inlet**

1143 *In the summer, my mother would jig flounders—use k’aaw for bait—either in front of Jag’s*
1144 *or off the dock in Skidegate...they rigged up these hooks; I think there were two hooks*
1145 *dangled off a coat hanger that was bent, and then you use dried k’aaw for bait and they*
1146 *would just get all these flounders. And my mother would split them, take all the bones out,*
1147 *and smoke them for maybe a day or so and then dry them above the stove until everything*
1148 *was dry, so that there was a big row of these dried flounders behind the stove. And you*
1149 *would just rip one off and shove it in the woodstove and cook it, or you can eat it the way it*
1150 *was, all dry, and it was really tasty...and in the winter months, the men would fish off of*
1151 *around Balance Rock and get another type of flounder. There’s two types; one’s called t’aal*
1152 *and the ones we got in the summer, I believe, is called sgan t’aal... it was real fun, you*
1153 *know... especially if you’d walk up to Skidegate, there would be half a dozen ladies and of*
1154 *course a picnic. (Diane Brown, April 2007)*

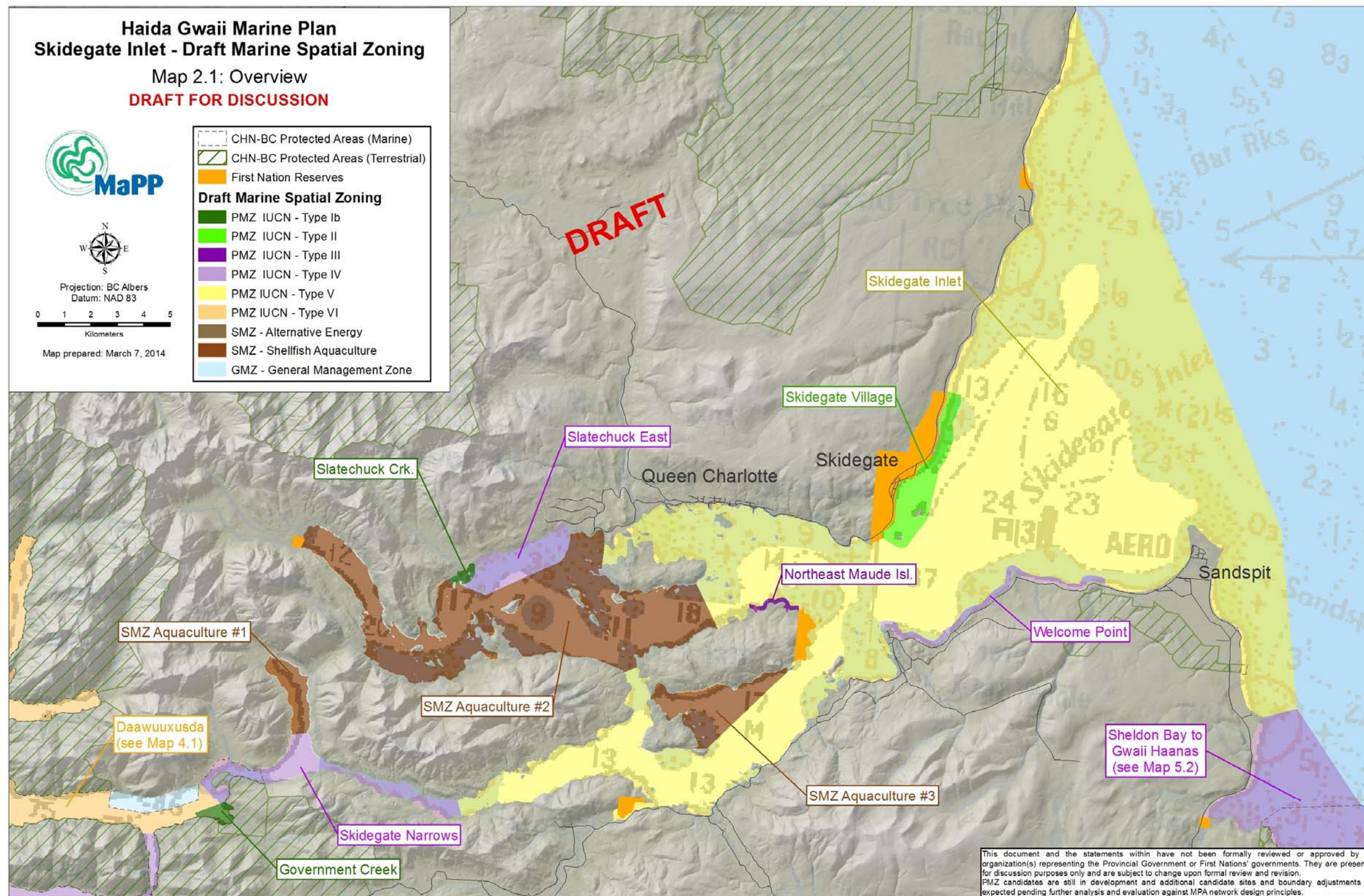
1155 Skidegate Inlet is a relatively confined waterbody separated from Hecate Strait by a prominent spit (Kil
1156 Kun or Sandspit). It is well known for its high tidal range, high abundances of herring and salmon,
1157 particularly Chum during past decades, as well as influxes of waterfowl, dogfish and other fish such as
1158 Chinook Salmon and halibut at certain times of the year. Due to the proximity of the communities of
1159 Skidegate, Queen Charlotte and Sandspit, Skidegate Inlet experiences relatively high marine use. The
1160 area has abundant seafood that historically supported numerous Haida villages and that continues to
1161 provide for Haida and other island communities today. Extensive intertidal life and productive salmon
1162 rivers provide a wide range of shellfish and finfish that are traditionally gathered and fished throughout
1163 the entire inlet.

1164 Logging and commercial fishing activities were very active over the past century, although both have
1165 declined in recent decades. Many commercial fisheries are already closed within Skidegate Inlet but,
1166 over the past decade, charter and lodge-style recreational fishing activities have increased, particularly
1167 in Sandspit. Currently there are active shellfish aquaculture operations within Skidegate Inlet and
1168 capability studies have indicated high suitability for expanded growth of the industry in the area. As a
1169 result, a Shellfish Aquaculture SMZ is proposed in parts of the inlet to reflect the potential for future
1170 marine economic development. The area is an important transportation hub for the Islands, including
1171 infrastructure to support ferries and other marine vessels. Skidegate Narrows is also a transportation
1172 corridor between the east and west coasts of Haida Gwaii.

1173 Map 2.1 is an overview map of Skidegate Inlet. Skidegate Inlet in its entirety is proposed as a Category V
1174 PMZ as it is recognized that the inlet would benefit from an integrated management plan that considers
1175 both broader ecological interactions and the value and importance of the many human use activities
1176 that occur throughout the area. In addition, a total of 2 IUCN Type Ib, 1 IUCN Type II, 1 IUCN Type III, 3
1177 IUCN Type IV, and 1 IUCN Type V PMZ candidates are identified within Skidegate Inlet. Additionally,
1178 three proposed SMZs are identified for shellfish aquaculture to allocate space for scallop culture in areas
1179 that are expected to experience development over the next five years. The proposed category and
1180 objectives for each candidate zone are described in Table 8-10 and recommended uses and activities are
1181 listed in Table 8-11.

1182 Map 2.1. Overview of Skidegate Inlet, including Draft Marine Spatial Zoning

1183



1184 **Table 8-10. Skidegate Inlet SMZ and PMZ Candidates**

1185

ZoneName	PMZ / SMZ Category	Size (km²)	Management Objective(s) for Provincial and Haida values
Government Creek	IUCN - Type Ib	0.7	Protection of Government Creek estuary and a productive salmon stream flowing from one of the only remaining unlogged watersheds on Haida Gwaii.
Northeast Maude Island	IUCN - Type III	0.4	Protection of natural history site (unique fossils) as well as protection of eelgrass and giant kelp habitat and significant historic herring spawn.
SMZ - Shellfish Aquaculture 1	SMZ - Shellfish Aquaculture	2.3	To allocate space and maintain ecological conditions for sustainable shellfish aquaculture activities.
SMZ - Shellfish Aquaculture 2	SMZ - Shellfish Aquaculture	37.1	To allocate space and maintain ecological conditions for sustainable shellfish aquaculture activities.
SMZ - Shellfish Aquaculture 3	SMZ - Shellfish Aquaculture	5.9	To allocate space and maintain ecological conditions for sustainable shellfish aquaculture activities.
Skidegate Inlet	IUCN - Type V	240.7	Protection of the unique inlet separating Graham and Moresby Islands which contains the estuaries of multiple salmon streams, historical herring spawning grounds, important bird areas, eelgrass and kelp habitat, and an important area of Haida traditional use.
Skidegate Narrows	IUCN - Type IV	5.9	Protection of Skidegate Narrows – a shallow channel and scenic travel route with unique benthic features and important for Haida traditional use.
Skidegate Village	IUCN - Type II	5.0	Protection of the area adjacent to the village of Skidegate, rich in kelp and eelgrass beds and used extensively by Haida for traditional use.
Slatechuck	IUCN - Type Ib	0.4	Protection of the Slatechuck Creek estuary, nesting seabird colonies and eelgrass beds.
Slatechuck East	IUCN - Type IV	4.6	Protection of eelgrass beds, nesting seabird colonies and bird congregation areas.
Welcome Point	IUCN - Type IV	2.2	Protection of Sachs Creek estuary, seabird colonies, herring spawning grounds and an important location for Haida traditional use.

1186

1187

1188 **Table 8-11. Recommended Uses and Activities for Skidegate Inlet Proposed Marine Zones**

Site Name		SMZ Aquaculture #1: Trounce	SMZ Aquaculture #2: West Skidegte	SMZ Aquaculture #3: South Maude Isl.	Government Creek	Slatechuck Creek	Skidegate Village	Northeast Maude Isl.	Welcome Point	Skidegate Narrows	Slatechuck East	Skidegate Inlet
Zone Type		SMZ Aquaculture			PMZ IUCN Ib		PMZ IUCN II	PMZ IUCN III	PMZ IUCN IV			PMZ IUCN V
Category	Marine Uses and Activities (see tabs for details)											
Aquaculture	Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	✓	✓	X	X	X	X	X	X	X	✓
	Off Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	✓	✓	X	X	X	X	X	X	X	✓
	Off-Bottom Aquaculture – Finfish	X	X	X	X	X	X	X	X	X	X	X
Energy	Renewable Energy Generation	O ⁷	O ⁷	O ⁷	X	X	X	X	X	X	X	✓
Industry	Forestry Operations	X	X	X	X	X	X	X	X	X	X	✓
	Mining Operations	X	X	X	X	X	X	X	X	X	X	X
Infrastructure	Commercial and Recreational Anchorages	O ⁷	O ⁷	O ⁷	O ^{2,4}	O ^{2,4}	O ^{2,4}	O ^{2,4}	O ^{2,4}	O ^{2,4,9}	O ^{2,4}	✓
	Float Homes	X	X	X	X	X	X	X	X	X	X	O ^{2,4}
	Floating Lodges	X	X	X	X	X	X	X	X	X	X	O ^{2,4}
	Level 1 Docks, Wharves & Facilities	O ⁷	O ⁷	O ⁷	O ^{2,8}	X	O ^{2,3,4}	X	O ^{2,4}	X	X	✓
	Level 2 Docks, Wharves & Facilities	O ^{5,7}	O ^{5,7}	O ^{5,7}	X	X	X	X	X	X	X	O ⁵
Recreation/ Tourism	Commercial Recreation and Tourism	✓	✓	✓	O ²	O ^{2,4}	O ^{2,4}	O ^{2,4}	✓	✓	O ^{2,4}	✓
	Public Recreation and Tourism	✓	✓	✓	O ²	O ^{2,4}	O ^{2,4}	O ^{2,4}	✓	✓	O ^{2,4}	✓
Research	Research	✓	✓	✓	O ¹	O ¹	O ^{1,4}	O ^{1,4}	✓	✓	O ^{1,4}	✓
Utilities	Linear Utilities	O ⁷	O ⁷	O ⁷	X	X	O ²	O ²	O ²	X	X	✓
	Point Source Utilities	X	X	X	X	X	X	X	X	X	X	✓
Aquaculture	Aquaculture Licensing	Where a use/activity is outside provincial regulatory authority, the approval of that use/activity is subject to the decision-making process(es) of the responsible authorities. Absence of a use/activity in this table does not imply that activities were not considered or evaluated in the above recommendations, or that the use/activity is of no interest. Consistency with proposed IUCN designations is supported by the Council of Haida Nation and the Province of BC and conditional activities will be determined based on area-specific values.										
Fisheries	Commercial Fisheries											
	Recreational Fisheries: Guided and Non-Guided (Shellfish and Finfish)											
Transportation & Navigation	Transportation											
	Temporary Port Vessel Anchorage											

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1191

Key:

Haida traditional uses, including practices for food, social, ceremonial and stewardship purposes, continue in accordance with legal obligations.	
Acceptable: Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	✓
Conditionally Acceptable: The use/activity is acceptable provided it is consistent with (adheres to) the plan conditions. Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	O
Not Acceptable: Uses and activities are considered not acceptable and should not be approved by the appropriate management body(ies).	X
<i>*Absence of a use or activity in this table should not imply that the use or activity is of no interest or is acceptable. The reader should contact the appropriate management body(ies) for clarification in such circumstances.</i>	
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List of Conditional Statements

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- O³: infrastructure enabling Haida access to adjacent reserve lands permitted
- O⁴: activity must be compatible with Haida cultural use of the area, including consideration of Haida activities and/or stewardship knowledge; site limitations to be identified in an approved Protection Management Plan
- O⁵: infrastructure and associated activities must be compatible with vision and conservation objectives of protected area; site limitations to be identified in an approved Protection Management Plan
- O⁷: activities or infrastructure may be limited by current aquaculture operations and/or future aquaculture opportunities in area
- O⁸: infrastructure must be required for service provision of protected area
- O⁹: activity must not interfere with existing vessel traffic in area

Additional Considerations

Government Creek: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Slatechuck Creek: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Skidegate Village: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Northeast Maude Island: Ecological values may be impacted by commercial fisheries. Sensitive and/or critical features and associated habitats and/or cultural values may be impacted by recreational fishing activity. Sensitive or critical features and habitat may be impacted by large commercial vessels and smaller freight or log boom towing vessels.

Welcome Point: Ecological values may be impacted by commercial fisheries. Sensitive and/or critical features and associated habitats and/or cultural values may be impacted by recreational fishing activity. Sensitive or critical features and habitat may be impacted by large commercial vessels and smaller freight or log boom towing vessels.

Skidegate Narrows: Ecological values may be impacted by commercial fisheries. Sensitive and/or critical features and associated habitats and/or cultural values may be impacted by recreational fishing activity. Sensitive or critical features and habitat may be negatively impacted by large commercial vessels, though it is noted that log barge loading at storage/handling facilities is an important activity in the area. Ecological values may be impacted by anchoring. Periodic dredging of the channel occurs to maintain navigation and safety.

Slatechuck East: Ecological values may be impacted by commercial fisheries. Sensitive and/or critical features and associated habitats and/or cultural values may be impacted by recreational fishing activity. Sensitive or critical features and habitat may be negatively impacted by large commercial vessels, though it is noted that log barge loading at storage/handling facilities is an important activity in the area.

Skidegate Inlet: Commercial value of salmon and spawn on kelp in the area is high. Ecological and cultural values may be impacted by other commercial fisheries. Temporary vessel anchorage by log and container barges have high economic value. Economic value of transportation activities in the area is high.

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1196 **8.5.3 Dixon Entrance**

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1198 *Well, from [Masset] as soon as ... the fishing season opens, they all go down to the North*
1199 *Island... all our people living here, they all had fishing cabins down there. So the whole village*
1200 *used to move down there. Nobody left here [in] Massett. They'd move down there, the hand-*
1201 *trollers, and then the other bunch moved into Naden—crab fishermen and their wives working*
1202 *the cannery. And then some from here—whatever left moved out to Tow Hill—razor clam*
1203 *digging. They had a big cannery out there that time. So Massett was empty town when it's*
1204 *summertime. Yeah, that was where I start fishing with my dad ... my dad used to teach me all*
1205 *about how to be on a rowboat—how to take care of the boat, how to take care of myself. He*
1206 *said, 'You're not a good ocean man unless you can stay on the boat.' (chuckling) ... Then once I*
1207 *got a little bit older I worked my way onto the seine boats. I been on seine boats, halibut*
1208 *boats—all of my life... I think I was twelve years old the first time I went by myself ... I rowed*
1209 *from here to Naden. I spent the night there and then from there I rowed down to Shag Rock.*
1210 *My dad was in the fishing camp there. There was a whole bunch of houses in there at that*
1211 *time. They had fishing cabins everywhere. [At] North Island... there was a big ... packer. They*
1212 *used to tie all the rowboats behind each others... and he used to tow everybody down there."*
1213 *(Stephen Brown, Jan. 2009)*

1214 Dixon Entrance is located at the north end of the Haida Gwaii archipelago, with the northern extent of
1215 the planning area defined by the international border between Canada and the United States. The
1216 bathymetry of Dixon Entrance, along with the influence of freshwater from the mainland (eg, Skeena
1217 and Nass Rivers) and strong tidal flows, creates a distinctive set of currents, separating it from the Pacific
1218 Ocean on the west coast of Graham Island and Hecate Strait to the east.

1219 Dixon Entrance contains some prominent geophysical features including Learmonth (or Learmouth)
1220 Bank, Naden Harbour, McIntyre Bay, Langara Island and Rose Spit. These varied and unique features
1221 result in an area of high productivity and diverse habitats. Dixon Entrance has provided for the Haida for
1222 thousands of years and the area is still used for both traditional and other commercial activities. Over
1223 the past half-century there have been significant trawl and longline fisheries in the deeper waters of
1224 Dixon Entrance. Currently there are active Dungeness Crab fisheries in McIntyre Bay and Naden
1225 Harbour. There are also a number of recreational fishing lodges and charter companies operating in the
1226 area and in the past this has led to conflicts between users, particularly in the area between Masset,
1227 Naden Harbour and Langara Island.

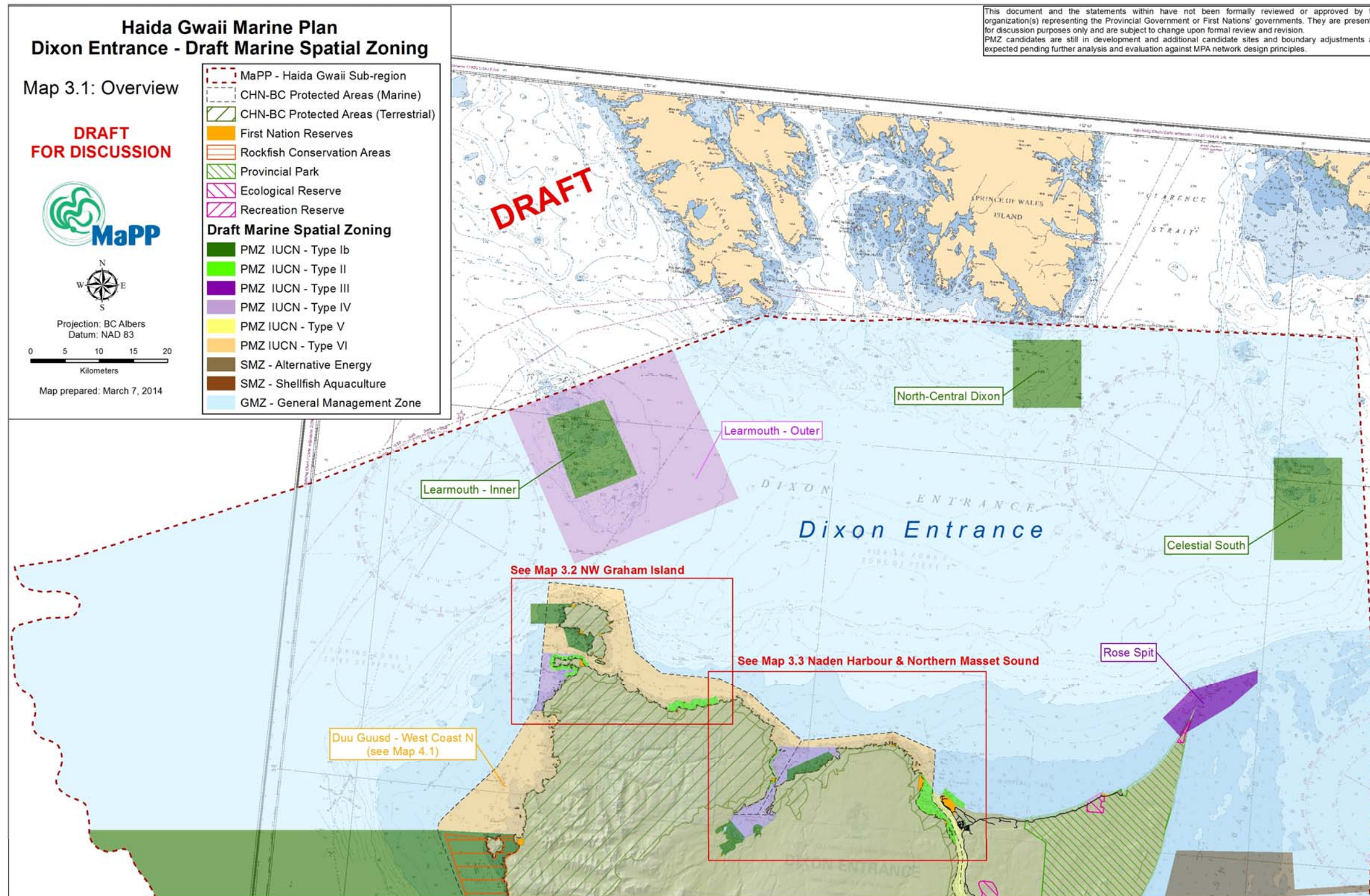
1228 Dixon Entrance is an important transportation corridor and has been so for generations. Learmouth
1229 Bank is located on the "Haida highway" from Haida Gwaii to Alaska and features in Haida oral traditions.
1230 Today, large container ships travel through the area, transiting from the ports of Prince Rupert and
1231 Kitimat en route to Asian markets. Ships are often anchored in the vicinity of McIntyre Bay preceding
1232 their arrival in port or their departure to the open Pacific. Proposed industrial projects in mainland ports
1233 may result in increased tanker traffic over the next decade, raising concerns about the possibility of an
1234 oil spill in the region. Additionally, cruise ships regularly transit through Haida Gwaii waters. As a result,

1235 the cumulative effects of large vessel bilge and waste water dumping in the area is also a growing
1236 concern.

1237 The ecological significance of the area is notable on a coastwide scale, particularly around Langara Island
1238 which supports numerous seabird colonies, diverse nearshore habitats and abundant marine mammals.
1239 There are many culturally significant areas in Dixon Entrance including places that are important for
1240 Haida seaweed harvesting and fishing, as well as villages, shell middens, caves, burial sites, culturally
1241 modified trees, and rock shelters. Haida Watchmen camps, located in former village sites in Naden
1242 Harbour and at Kiusta, are used as bases for the CHN Fisheries Program to monitor recreational fishing
1243 activities in the area.

1244 Map 3.1 is an overview map of Dixon Entrance. Maps 3.2 and 3.3 are more detailed maps of NW
1245 Graham Island and Naden Harbour, respectively. A total of 9 IUCN Type Ib, 4 IUCN Type II, 1 IUCN Type
1246 III, 3 IUCN Type IV and 2 IUCN Type VI candidate PMZs are identified. The proposed category and
1247 objectives and recommended uses and activities for each candidate zone are described in Tables 8-12
1248 to 8-17.

1249 **Map 3.1. Overview of Dixon Entrance, including Draft Marine Spatial Zoning**



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1251 **Table 8-12. Dixon Entrance PMZ Candidates**

1252

Zone Name	PMZ / SMZ Category	Size (km²)	Management Objective(s) for Provincial and Haida values
Learmouth - Inner	IUCN - Type Ib	113.8	Protection of Learmouth Bank, a unique benthic feature resulting in highly productive waters, and associated species assemblages.
Learmouth - Outer	IUCN - Type IV	507.6	Protecting an area with unique oceanographic features as well as cold water corals and sponges.
North-Central Dixon	IUCN - Type Ib	100.0	Protecting representative habitat within Dixon Entrance Ecoregion.
Rose Spit	IUCN - Type III	54.8	Protection of a unique geologic and benthic feature and an important location for Haida.
South Celestial Reef	IUCN - Type Ib	150.0	Protecting rockfish habitat and representative habitat within Dixon Entrance Ecoregion

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1253 **Table 8-13. Recommended Uses and Activities for Dixon Entrance Proposed Marine Zones**

		Site Name	General Management Zone	Celestial South	Learnmouth Inner	North-Central Dixon	Rose Spit	Learnmouth Outer
		Zone Type	GMZ	PMZ IUCN Ib			PMZ IUCN III	PMZ IUCN IV
Category	Marine Uses and Activities							
Aquaculture	Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	n/a	n/a	n/a	X	n/a	
	Off Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	n/a	n/a	n/a	X	n/a	
	Off-Bottom Aquaculture – Finfish	X	n/a	n/a	n/a	X	n/a	
Energy	Renewable Energy Generation	✓	X	X	X	X	X	
Industry	Forestry Operations	✓	n/a	n/a	n/a	X	n/a	
	Mining Operations	✓	X	X	X	X	X	
Infrastructure	Commercial and Recreational Anchorages	✓	X	X	X	X	X	
	Float Homes	✓	n/a	n/a	n/a	X	n/a	
	Floating Lodges	✓	n/a	n/a	n/a	X	n/a	
	Level 1 Docks, Wharves & Facilities	✓	n/a	n/a	n/a	X	n/a	
	Level 2 Docks, Wharves & Facilities	✓	n/a	n/a	n/a	X	n/a	
Recreation/ Tourism	Commercial Recreation and Tourism	✓	O ²	O ²	O ²	O ²	✓	
	Public Recreation and Tourism	✓	O ²	O ²	O ²	O ²	✓	
Research	Research	✓	O ¹	O ¹	O ¹	O ¹	O ²	
Utilities	Linear Utilities	✓	n/a	n/a	n/a	X	n/a	
	Point Source Utilities	✓	n/a	n/a	n/a	X	n/a	
		<p>Aquaculture Aquaculture Licensing</p> <p>Fisheries Commercial Fisheries</p> <p>Recreational Fisheries: Guided and Non-Guided (Shellfish and Finfish)</p> <p>Transportation & Navigation Transportation</p> <p>Temporary Port Vessel Anchorage</p> <p>Where a use/activity is outside provincial regulatory authority, the approval of that use/activity is subject to the decision-making process(es) of the responsible authorities. Absence of a use/activity in this table does not imply that activities were not considered or evaluated in the above recommendations, or that the use/activity is of no interest. Consistency with proposed IUCN designations is supported by the Council of Haida Nation and the Province of BC and conditional activities will be determined based on area-specific values.</p>						

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Key:

Haida traditional uses, including practices for food, social, ceremonial and stewardship purposes, continue in accordance with legal obligations.	
Acceptable: Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	✓
Conditionally Acceptable: The use/activity is acceptable provided it is consistent with (adheres to) the plan conditions. Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	O
Not Acceptable: Uses and activities are considered not acceptable and should not be approved by the appropriate management body(ies).	X
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Additional Considerations

Celestial South: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

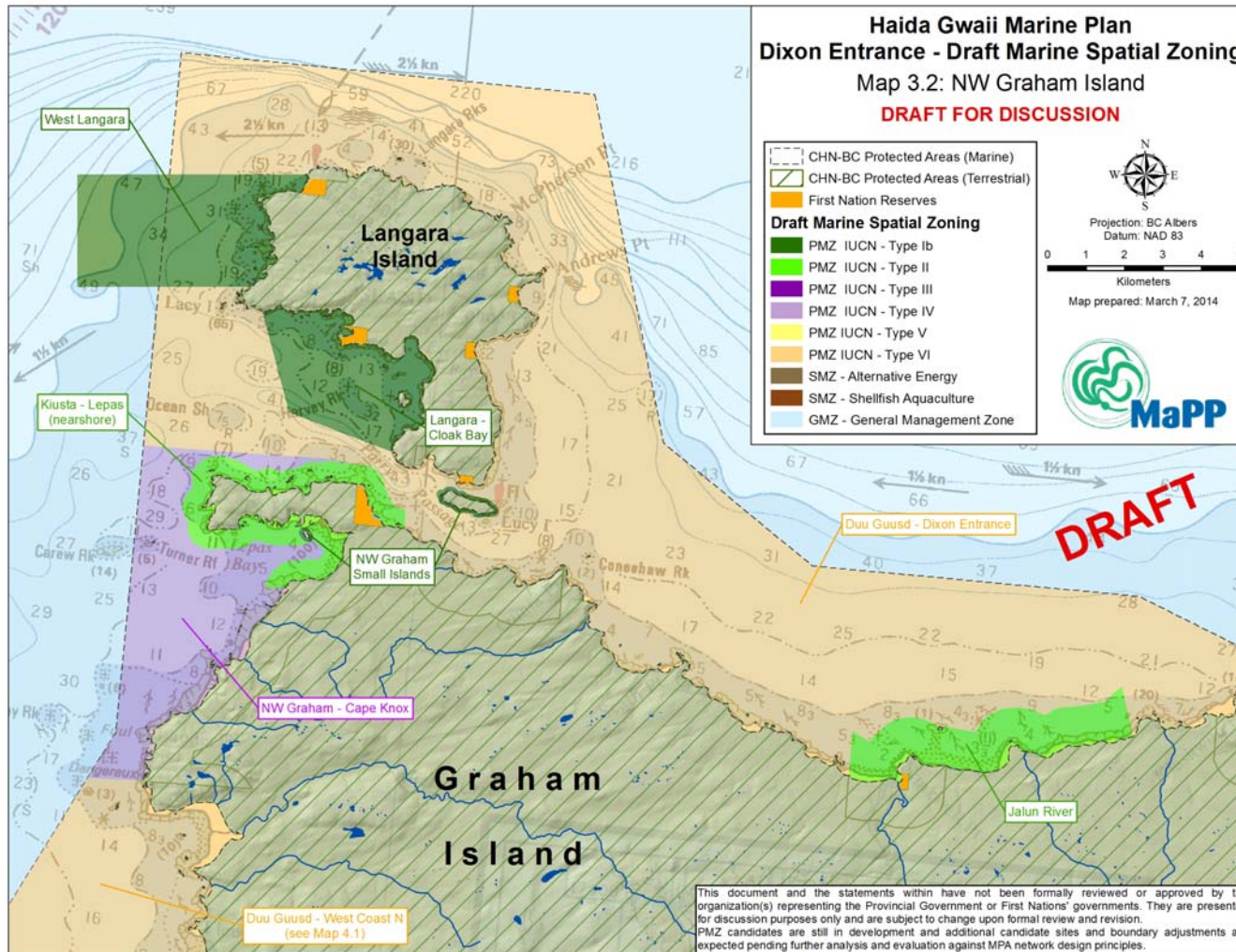
Learmouth Inner: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

North-Central Dixon: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Rose Spit: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Learmouth Outer: Sensitive or critical features and habitat, particularly cold water corals and sponges known to occur in the region, may be negatively impacted by bottom contact fisheries. Economic value of transportation activities in the area is high.

1258 **Map 3.2. Dixon Entrance – NW Graham Island, showing Draft Marine Spatial Zoning**



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1260 **Table 8-14. Dixon – NW Graham PMZ Candidates**

1261

Zone Name	PMZ / SMZ Category	Size (km²)	Management Objective(s) for Provincial and Haida values
East Virago	IUCN - Type Ib	10.9	Protection of representative coastal habitat of northern Graham Island including multiple salmon streams, an important estuary, and kelp and eelgrass beds.
Kung - Naden	IUCN - Type II	1.7	Protection of productive nearshore area including significant Haida values.
Lignite Estuary	IUCN - Type Ib	1.8	Protection of the Lignite Estuary and surrounding waters which are important chum, sockeye, coho and pink salmon habitat.
Naden Davidson Estuary	IUCN - Type Ib	10.1	Protection of the Naden River and Davidson River estuaries, important salmon habitat, eel grass habitat and significant historical herring spawn locations.
Naden Harbour	IUCN - Type IV	47.8	Protection of important estuaries, eelgrass and kelp habitat and locations of significant historical herring spawn.
Nang Xaldangaas	IUCN - Type VI	41.6	Protection of coastal habitat along northern Graham Island including multiple salmon streams, an important estuary, kelp beds and Haida traditional use areas.
Old Massett	IUCN - Type II	3.6	Protection of area adjacent to the village of Old Massett containing significant giant kelp habitat and important traditional use areas.

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1264 **Table 8-15. Recommended Uses and Activities for Dixon Entrance – NW Graham Proposed Marine Zones**

		Site Name	General Management Zone	Langara - Cloak Bay	West Langara	NW Graham - Small Islands	Jalun River	Kiusta - Lepas Nearshore	NW Graham - Cape Knox	Duu Guusd - Dixon Entrance
		Zone Type	GMZ	PMZ IUCN Ib			PMZ IUCN II	PMZ IUCN IV	PMZ IUCN VI	
Category	Marine Uses and Activities									
Aquaculture	Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	X	X	X	X	X	X	✓	
	Off Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	X	X	X	X	X	X	✓	
	Off-Bottom Aquaculture – Finfish	X	X	X	X	X	X	X	X	
Energy	Renewable Energy Generation	✓	X	X	X	X	X	X	✓	
Industry	Forestry Operations	✓	X	X	X	X	X	X	✓	
	Mining Operations	✓	X	X	X	X	X	X	X	
Infrastructure	Commercial and Recreational Anchorages	✓	X	X	X	O ^{2,4}	O ^{2,4}	O ^{2,4}	✓	
	Float Homes	✓	X	X	X	X	X	X	O ^{2,4}	
	Floating Lodges	✓	X	X	X	X	X	X	O ^{2,4}	
	Level 1 Docks, Wharves & Facilities	✓	O ^{2,3,4}	O ^{2,3,4}	X	O ^{2,3,4}	O ^{2,3,4}	X	✓	
	Level 2 Docks, Wharves & Facilities	✓	X	X	X	X	X	X	O ⁵	
Recreation/ Tourism	Commercial Recreation and Tourism	✓	O ^{2,4}	O ^{2,4}	O ²	O ^{2,4}	O ^{2,4}	✓	✓	
	Public Recreation and Tourism	✓	O ^{2,4}	O ^{2,4}	O ²	O ^{2,4}	O ^{2,4}	✓	✓	
Research	Research	✓	O ¹	O ¹	O ¹	O ^{1,4}	O ^{1,4}	✓	✓	
Utilities	Linear Utilities	✓	X	X	X	X	X	X	✓	
	Point Source Utilities	✓	X	X	X	X	X	X	O ^{2,4}	
		<p>Where a use/activity is outside provincial regulatory authority, the approval of that use/activity is subject to the decision-making process(es) of the responsible authorities.</p> <p>Absence of a use/activity in this table does not imply that activities were not considered or evaluated in the above recommendations, or that the use/activity is of no interest.</p> <p>Consistency with proposed IUCN designations is supported by the Council of Haida Nation and the Province of BC and conditional activities will be determined based on area-specific values.</p>								
Aquaculture	Aquaculture Licensing									
Fisheries	Commercial Fisheries									
	Recreational Fisheries: Guided and Non-Guided (Shellfish and Finfish)									
Transportation & Navigation	Transportation									
	Temporary Port Vessel Anchorage									

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Key:

Haida traditional uses, including practices for food, social, ceremonial and stewardship purposes, continue in accordance with legal obligations.	
Acceptable: Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	✓
Conditionally Acceptable: The use/activity is acceptable provided it is consistent with (adheres to) the plan conditions. Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	O
Not Acceptable: Uses and activities are considered not acceptable and should not be approved by the appropriate management body(ies).	X
<p><i>*Absence of a use or activity in this table should not imply that the use or activity is of no interest or is acceptable. The reader should contact the appropriate management body(ies) for clarification in such circumstances.</i></p> <p>Note: This table does not alter the Council of Haida Nation and Province of BC referral obligations under existing agreements.</p>	

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O³: infrastructure enabling Haida access to adjacent reserve lands permitted

O⁴: activity must be compatible with Haida cultural use of the area, including consideration of Haida activities and/or stewardship knowledge; site limitations to be identified in an approved Protection Management Plan

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Additional Considerations

Langara-Cloak Bay: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

West Langara: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

NW Graham-Small Islands: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Jalun River: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

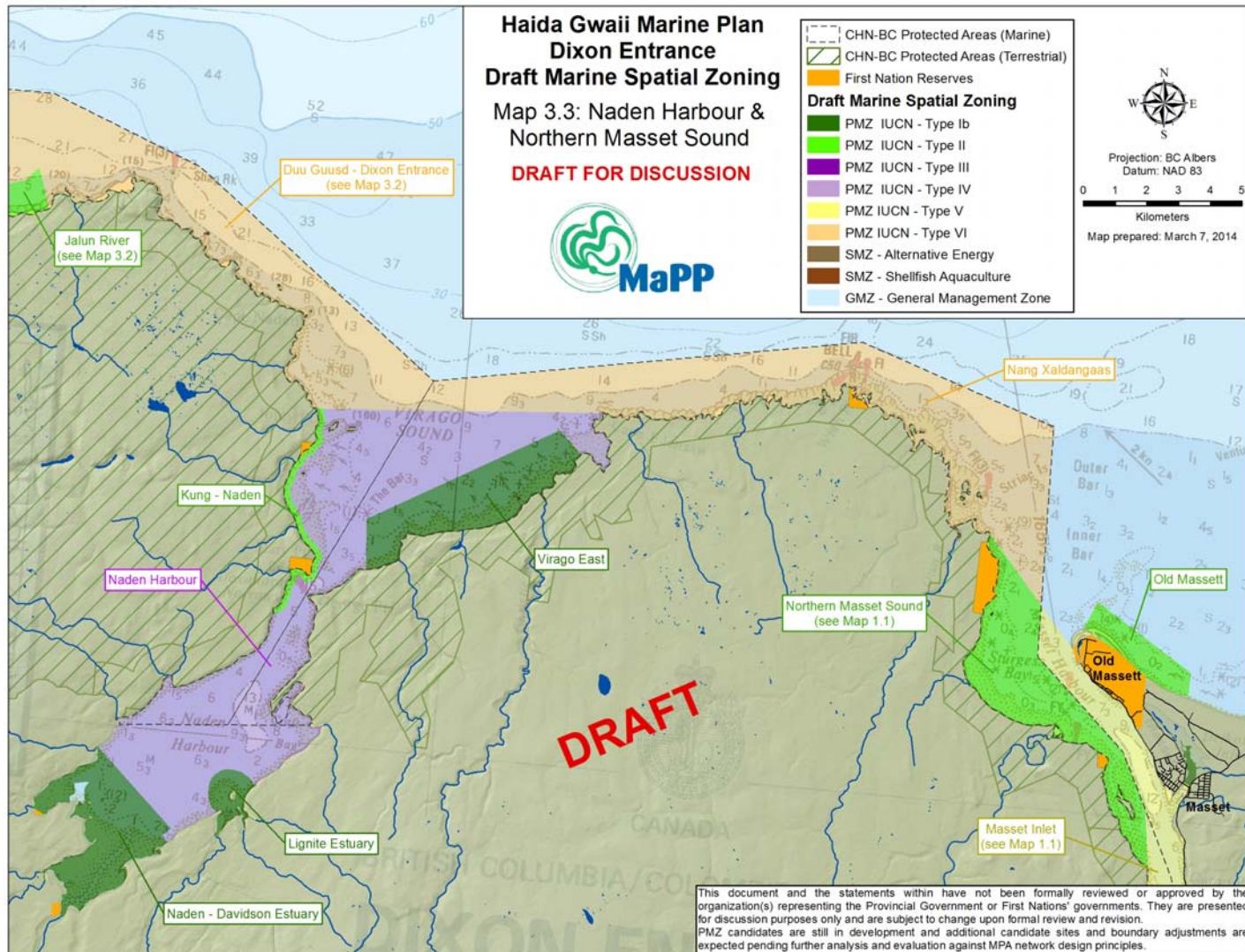
Kiusta-Lepas Nearshore: Sensitive or critical features and habitat may be impacted by large commercial vessels and smaller freight or log boom towing vessels.

NW Graham-Cape Knox: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels, though it is noted that barges carrying fuel and equipment/supplies is an important activity occurring in the area. Sensitive benthic habitat and species values may be impacted by trawl activities.

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1272 **Map 3.3. Dixon Entrance – Naden Harbour, showing Draft Marine Spatial Zoning**



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1274 **Table 8-16. Dixon – Naden Harbour PMZ Candidates**

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Zone Name	PMZ / SMZ Category	Size (km²)	Management Objective(s) for Provincial and Haida values
East Virago	IUCN - Type Ib	10.9	Protection of representative coastal habitat of northern Graham Island including multiple salmon streams, an important estuary, and kelp and eelgrass beds.
Kung - Naden	IUCN - Type II	1.7	Protection of productive nearshore area including significant Haida values.
Lignite Estuary	IUCN - Type Ib	1.8	Protection of the Lignite Estuary and surrounding waters which are important chum, sockeye, coho and pink salmon habitat.
Naden Davidson Estuary	IUCN - Type Ib	10.1	Protection of the Naden River and Davidson River estuaries, important salmon habitat, eel grass habitat and significant historical herring spawn locations.
Naden Harbour	IUCN - Type IV	47.8	Protection of important estuaries, eelgrass and kelp habitat and locations of significant historical herring spawn.
Nang Xaldangaas	IUCN - Type VI	41.6	Protection of coastal habitat along northern Graham Island including multiple salmon streams, an important estuary, kelp beds and Haida traditional use areas.
Old Massett	IUCN - Type II	3.6	Protection of area adjacent to the village of Old Massett containing significant giant kelp habitat and important traditional use areas.

1276 **Table 8-17. Recommended Uses and Activities for Dixon Entrance – Naden Harbour Proposed Marine Zones**

		Site Name	General Management Zone	Lignite Creek Estuary	Naden - Davidson Estuary	Virago East	Kung - Naden	Old Massett	Naden Harbour	Nang Xaldangaa
		Zone Type	GMZ	PMZ IUCN Ib			PMZ IUCN II		PMZ IUCN IV	PMZ IUCN VI
Category	Marine Uses and Activities									
Aquaculture	Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	X	X	X	X	X	O ^{2,4}	✓	
	Off Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	X	X	X	X	X	O ^{2,4}	✓	
	Off-Bottom Aquaculture – Finfish	X	X	X	X	X	X	X	X	
Energy	Renewable Energy Generation	✓	X	X	X	X	X	X	✓	
Industry	Forestry Operations	✓	X	X	X	X	X	O ^{2,4}	✓	
	Mining Operations	✓	X	X	X	X	X	X	X	
Infrastructure	Commercial and Recreational Anchorages	✓	X	X	X	X	X	O ^{2,4}	✓	
	Float Homes	✓	X	X	X	X	X	X	O ^{2,4}	
	Floating Lodges	✓	X	X	X	X	X	O ^{2,4}	O ^{2,4}	
	Level 1 Docks, Wharves & Facilities	✓	X	O ^{2,3,4}	X	O ^{2,3,4}	O ^{2,3,4}	O ^{2,4}	✓	
	Level 2 Docks, Wharves & Facilities	✓	X	X	X	X	X	X	O ⁵	
Recreation/ Tourism	Commercial Recreation and Tourism	✓	O ²	O ²	O ²	O ^{2,4}	O ^{2,4}	✓	✓	
	Public Recreation and Tourism	✓	O ²	O ²	O ²	O ^{2,4}	O ^{2,4}	✓	✓	
Research	Research	✓	O ¹	O ¹	O ¹	O ^{1,4}	O ^{1,4}	✓	✓	
Utilities	Linear Utilities	✓	X	X	X	X	X	X	✓	
	Point Source Utilities	✓	X	X	X	X	X	X	O ^{2,4}	
Aquaculture	Aquaculture Licensing	<p>Where a use/activity is outside provincial regulatory authority, the approval of that use/activity is subject to the decision-making process(es) of the responsible authorities. Absence of a use/activity in this table does not imply that activities were not considered or evaluated in the above recommendations, or that the use/activity is of no interest. Consistency with proposed IUCN designations is supported by the Council of Haida Nation and the Province of BC and conditional activities will be determined based on area-specific values.</p>								
Fisheries	Commercial Fisheries									
	Recreational Fisheries: Guided and Non-Guided (Shellfish and Finfish)									
Transportation & Navigation	Transportation									
	Temporary Port Vessel Anchorage									

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Key:

Haida traditional uses, including practices for food, social, ceremonial and stewardship purposes, continue in accordance with legal obligations.	
Acceptable: Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	✓
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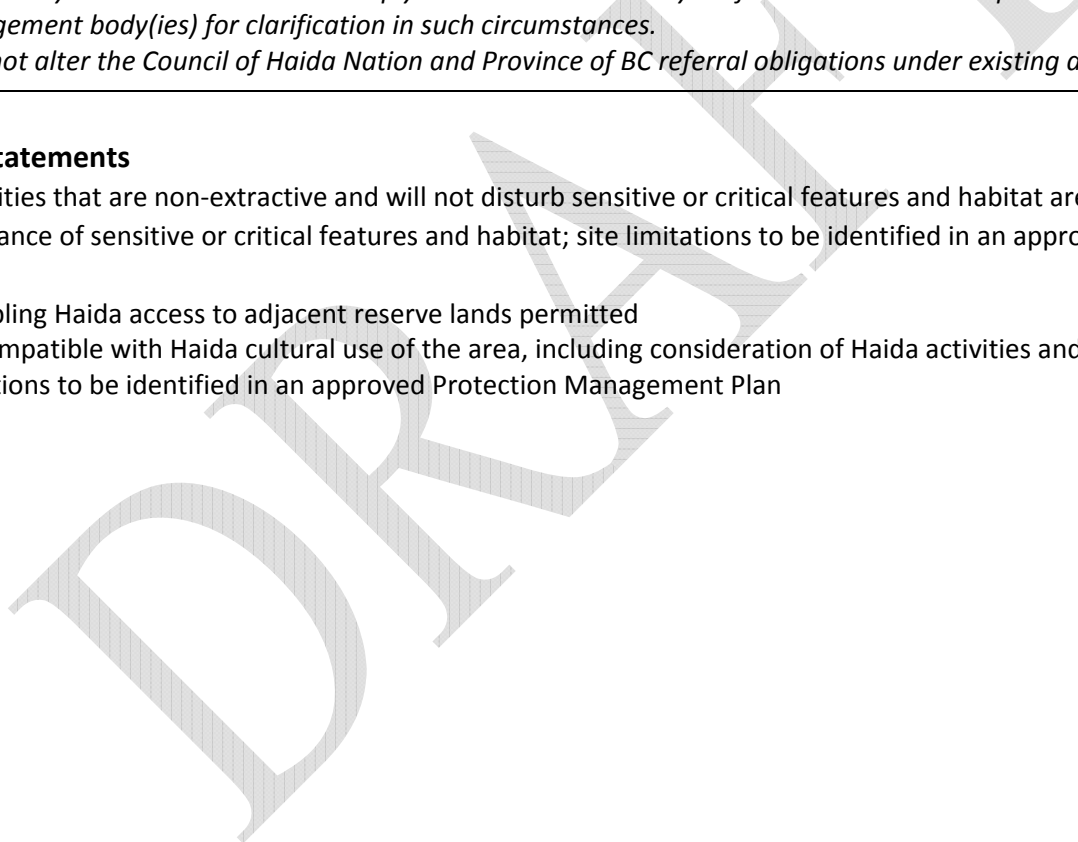
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O³: infrastructure enabling Haida access to adjacent reserve lands permitted

O⁴: activity must be compatible with Haida cultural use of the area, including consideration of Haida activities and/or stewardship knowledge; site limitations to be identified in an approved Protection Management Plan

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Additional Considerations

Lignite Creek Estuary: Sensitive or critical features and habitat may impacted by large commercial vessels and smaller freight or log boom towing vessels.

Naden-Davidson Estuary: Sensitive or critical features and habitat may impacted by large commercial vessels and smaller freight or log boom towing vessels.

Virago East: Sensitive or critical features and habitat may impacted by large commercial vessels and smaller freight or log boom towing vessels.

Kung-Naden: Sensitive or critical features and habitat may impacted by large commercial vessels and smaller freight or log boom towing vessels.

Old Massett: Sensitive or critical features and habitat may impacted by large commercial vessels and smaller freight or log boom towing vessels.

Naden Harbour: Commercial value of salmon is high. Ecological and cultural values may be impacted by other commercial fisheries. Sensitive or critical features and habitat may be negatively impacted by large commercial vessels, though it is noted that log barge loading at storage/handling facilities is an important activity in the area. Temporary vessel anchorage by log and container barges have high economic value.

1282 **8.5.4 West Coast**

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1284 *... when I was a boy... they used to call [it] Brown's Cabin—that's out the west coast—I used to*
1285 *see old guys, three of them, there was no power there. They used to just paddle out to get*
1286 *some black cod. It was still dark in the morning when you'd hear them starting off, rowing out.*
1287 *And then just before it gets dark you could hear them coming, singing their own song, and*
1288 *they'd be half-full of the black cods. Grandfather told me he was one of them. They used to go*
1289 *outside of Marble Island... 200 fathoms of water... to get those black cods. What I always*
1290 *remember is ... I used to watch my grandmother. They cut the heads off, you know, before they*
1291 *smoke it. And they boil it in a big pot—just the heads. And then they just start scooping all the*
1292 *oil out of it... just like [eulachon] grease now. Boy, I tell you, that's the best grease I used to*
1293 *taste.” (Jack Pollard, Aug. 1998)*

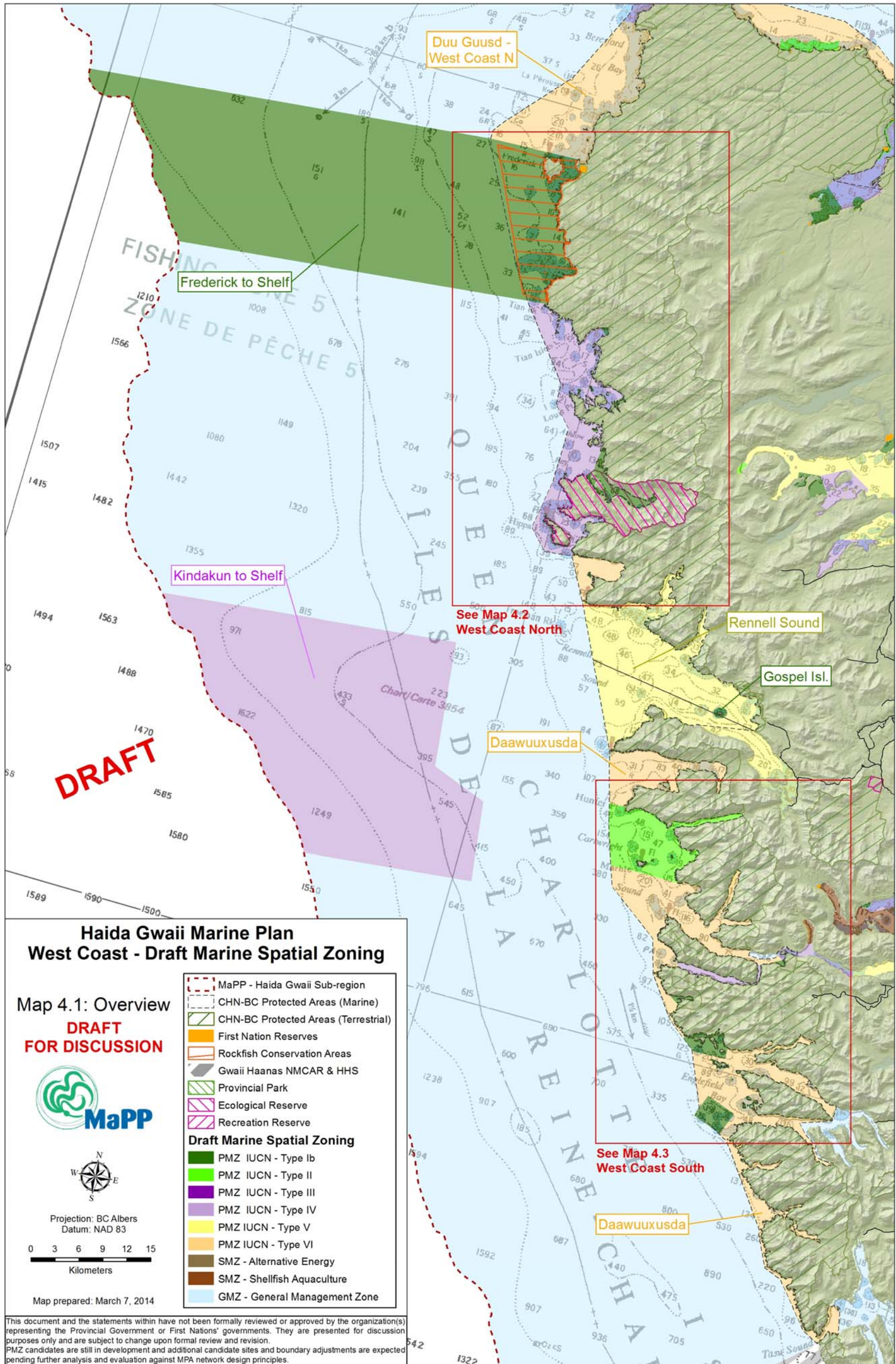
1294

1295 The west coast of Haida Gwaii is a remote and rugged landscape battered by powerful winds and waves.
1296 The proximity of the west coast to the continental shelf break combined with the prevailing winds
1297 results in deep cold nutrient rich water upwelling in nearshore areas. These productive conditions result
1298 in highly diverse nearshore habitats including rich Bull Kelp and Giant Kelp forests on the outer coast,
1299 lush eelgrass meadows in sheltered inlets and bays, and large California Mussel and Gooseneck Barnacle
1300 beds on wave-exposed rocky headlands. The upwelling areas along the continental slope also support
1301 unique bottom features such as the deep water corals found outside of Rennell Sound and Kindakun
1302 Point. Throughout the west coast, abundant forage fish populations support large seabird colonies,
1303 some of which are of national and global significance. These include colonies and nesting sites for
1304 species at risk such as Cassin's Auklet, Ancient Murrelets and Tufted Puffins, and important foraging
1305 areas for the threatened Marbled Murrelet.

1306 Commercial fisheries for sablefish and halibut occur offshore and dive fisheries for geoduck and sea
1307 urchins are located in nearshore waters. In addition, salmon and groundfish commercial fisheries occur
1308 along the productive West Coast (including the area offshore of Gwaii Haanas, see Section 8.5.6). The
1309 area is a known migration pathway for juvenile salmon that migrate north along the continental shelf to
1310 rich feeding grounds offshore and adult fish on their return journey to the large river systems on the
1311 mainland and to the south and this attracts both commercial and recreational fishers to the area. Haida
1312 continue to traditionally harvest these species as well, as they have for thousands of years.

1313 Map 4.1 is an overview map of the West Coast. Maps 4.2 and 4.3 are more detailed maps of West Coast
1314 – North and West Coast – South, respectively. A total of 12 IUCN Type Ib, 1 IUCN Type II, 3 IUCN Type IV,
1315 1 IUCN Type V, and 2 IUCN Type VI PMZ candidates are identified. The proposed category and objectives
1316 and recommended uses and activities for each candidate zone are described in Tables 8-18 to 8-23.

1317 **Map 4.1. Overview Map of West Coast, including Draft Marine Spatial Zoning**



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1319 **Table 8-18. West Coast PMZ Candidates**

1320

ZoneName	PMZ / SMZ Category	Size (km²)	Management Objective(s) for Provincial and Haida values
Daawuuxusda	IUCN - Type VI	276.7	Protection of west coast nearshore values including important estuaries, multiple salmon streams, colonies and foraging habitat for listed bird species, and inshore rockfish habitat and associated species assemblages.
Duu Guusd - West Coast N	IUCN - Type VI	166.1	Protection of important nearshore values including nesting sites and foraging habitat for listed seabird species, significant and minor salmon streams and multiple highest ranked estuaries.
Frederick to Shelf	IUCN - Type Ib	1021.0	Protection of portion of unique area and associated species assemblages and representative habitat of the shelf break and Continental Slope Ecosection as well as nearshore values including a significant estuary, bullkelp and giant kelp habitat, foraging habitat for listed bird species and a sea lion haulout.
Gospel Island	IUCN - Type Ib	1.7	Protection of inshore rockfish and kelp habitat around Island in middle of Rennell Sound.
Kindakun Sponge - Shelf	IUCN - Type IV	830.0	Protection of portion of unique area and associated deepwater species assemblages, representative habitat of the Continental Slope Ecosection including some cold water coral and sponge habitat.
Rennell Sound	IUCN - Type V	252.3	Protection of multiple ecological values in the only road accessed region of the West Coast of Haida Gwaii and an area used extensively by Haida for traditional use.

1321 **Table 8-19. Recommended Uses and Activities for West Coast Proposed Marine Zones**

		Site Name	General Management Zone	Frederick to Shelf	Gospel Island	Kindakun to Shelf	Rennell Sound	Duu Guusd - West Coast N	Daawuuxusda
		Zone Type	GMZ	PMZ IUCN Ib	PMZ IUCN IV	PMZ IUCN V	PMZ IUCN VI	PMZ IUCN VI	
Category	Marine Uses and Activities								
Aquaculture	Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	X	X	n/a	✓	✓	✓	
	Off Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	X	X	n/a	✓	✓	✓	
	Off-Bottom Aquaculture – Finfish	X	X	X	n/a	X	X	X	
Energy	Renewable Energy Generation	✓	X	X	n/a	✓	✓	✓	
Industry	Forestry Operations	✓	X	X	n/a	✓	✓	✓	
	Mining Operations	✓	X	X	X	X	X	X	
Infrastructure	Commercial and Recreational Anchorages	✓	X	X	X	✓	✓	✓	
	Float Homes	✓	X	X	n/a	O ^{2,4}	O ^{2,4}	O ^{2,4}	
	Floating Lodges	✓	X	X	n/a	O ^{2,4}	O ^{2,4}	O ^{2,4}	
	Level 1 Docks, Wharves & Facilities	✓	O ^{2,3,4}	X	n/a	✓	✓	✓	
	Level 2 Docks, Wharves & Facilities	✓	X	X	n/a	O ⁵	O ⁵	O ⁵	
Recreation/ Tourism	Commercial Recreation and Tourism	✓	O ²	O ²	✓	✓	✓	✓	
	Public Recreation and Tourism	✓	O ²	O ²	✓	✓	✓	✓	
Research	Research	✓	O ¹	O ¹	✓	✓	✓	✓	
Utilities	Linear Utilities	✓	X	X	n/a	✓	✓	✓	
	Point Source Utilities	✓	X	X	n/a	O ^{2,4}	O ^{2,4}	O ^{2,4}	
Aquaculture	Aquaculture Licensing	Where a use/activity is outside provincial regulatory authority, the approval of that use/activity is subject to the decision-making process(es) of the responsible authorities. Absence of a use/activity in this table does not imply that activities were not considered or evaluated in the above recommendations, or that the use/activity is of no interest. Consistency with proposed IUCN designations is supported by the Council of Haida Nation and the Province of BC and conditional activities will be determined based on area-specific values.							
Fisheries	Commercial Fisheries								
	Recreational Fisheries: Guided and Non-Guided (Shellfish and Finfish)								
Transportation & Navigation	Transportation								
	Temporary Port Vessel Anchorage								

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Key:

Haida traditional uses, including practices for food, social, ceremonial and stewardship purposes, continue in accordance with legal obligations.	
Acceptable: Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	✓
Conditionally Acceptable: The use/activity is acceptable provided it is consistent with (adheres to) the plan conditions. Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	O
Not Acceptable: Uses and activities are considered not acceptable and should not be approved by the appropriate management body(ies).	X
*Absence of a use or activity in this table should not imply that the use or activity is of no interest or is acceptable. The reader should contact the appropriate management body(ies) for clarification in such circumstances. Note: This table does not alter the Council of Haida Nation and Province of BC referral obligations under existing agreements.	

List of Conditional Statements

O¹: only research activities that are non-extractive and will not disturb sensitive or critical features and habitat are acceptable;

O²: must avoid disturbance of sensitive or critical features and habitat; site limitations to be identified in an approved Protection Management Plan

O³: infrastructure enabling Haida access to adjacent reserve lands permitted

O⁴: activity must be compatible with Haida cultural use of the area, including consideration of Haida activities and/or stewardship knowledge; site limitations to be identified in an approved Protection Management Plan

O⁵: infrastructure and associated activities must be compatible with vision and conservation objectives of protected area; site limitations to be identified in an approved Protection Management Plan

Additional Considerations

Frederick to Shelf: Economic value of transportation activities in the area is high.

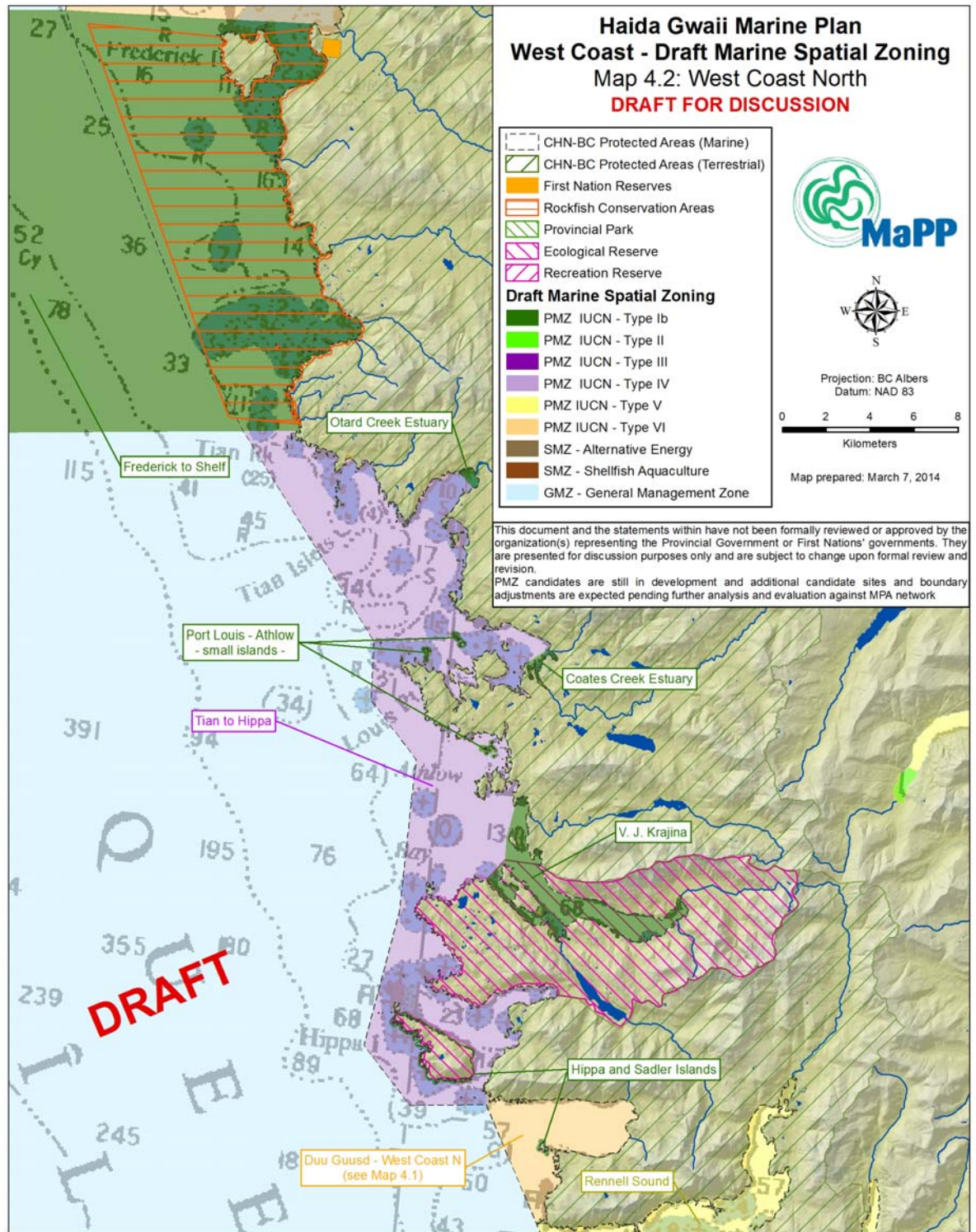
Gospel Island: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Kindakun to Shelf: Sensitive or critical features and habitat, particularly cold water corals and sponges known to occur in the region, may be negatively impacted by bottom contact fisheries and trawl (all types). Economic value of transportation activities in the area is high.

Rennell Sound: Sensitive benthic habitat and species values may be impacted by trawl activities. Enhanced monitoring and enforcement may be needed for protection of ecological and cultural values. Sensitive or critical features and habitat may be negatively impacted by large commercial vessels, though it is noted that log barge loading at storage/handling facilities is an important activity in the area. Temporary vessel anchorage by log and container barges have high economic value.

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Map 4.2. Map of West Coast – North, showing Draft Marine Spatial Zoning



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1328 **Table 8-20. West Coast – North PMZ Candidates**

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ZoneName	PMZ / SMZ Category	Size (km²)	Management Objective(s) for Provincial and Haida values
Coates Creek Estuary	IUCN - Type Ib	0.7	Protection of significant estuary, locations of historical herring spawn, and foraging habitat for listed bird species.
Hippa and Sadler Islands	IUCN - Type Ib	1.8	Protection of important nearshore habitat, and breeding colonies and foraging habitat for listed bird species.
Otard Creek Estuary	IUCN - Type Ib	0.5	Protection of a significant estuary and location of historic herring spawn.
Port Louis - Anthlow Islands	IUCN - Type Ib	1.1	Protection of herring spawn area and breeding colonies and foraging habitat for listed bird species.
Tian - Port Louis	IUCN - Type IV	133.6	Protection of an area containing areas of significant historic herring spawn, eelgrass and kelp beds, and foraging habitat for listed bird species.
Vladimir J.Krinjina	IUCN - Type Ib	13.7	Protection of significant estuaries, locations of historical herring spawn and important salmon streams.

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1331 **Table 8-21. Recommended Uses and Activities for West Coast – North Proposed Marine Zones**

		Site Name	General Management Zone	Coates Creek Estuary	Hippa and Sadler Isl.	Port Louis - Athlow Small Islands	Otard Creek Estuary	V.J. Krijina	Tian to Hippa
		Zone Type	GMZ	PMZ IUCN Ib					PMZ IUCN IV
Category	Marine Uses and Activities								
Aquaculture	Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	X	X	X	X	X	X	O ^{2,4}
	Off Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	X	X	X	X	X	X	O ^{2,4}
	Off-Bottom Aquaculture – Finfish	X	X	X	X	X	X	X	X
Energy	Renewable Energy Generation	✓	X	X	X	X	X	X	X
Industry	Forestry Operations	✓	X	X	X	X	X	X	X
	Mining Operations	✓	X	X	X	X	X	X	X
Infrastructure	Commercial and Recreational Anchorages	✓	X	X	X	X	X	O ^{2,4}	O ^{2,4}
	Float Homes	✓	X	X	X	X	X	X	X
	Floating Lodges	✓	X	X	X	X	X	X	O ^{2,4}
	Level 1 Docks, Wharves & Facilities	✓	X	X	X	X	X	X	O ^{2,3,4}
	Level 2 Docks, Wharves & Facilities	✓	X	X	X	X	X	X	O ^{2,4}
Recreation/ Tourism	Commercial Recreation and Tourism	✓	O ²	O ²	O ²	O ²	O ²	O ²	✓
	Public Recreation and Tourism	✓	O ²	O ²	O ²	O ²	O ²	O ²	✓
Research	Research	✓	O ¹	O ¹	O ¹	O ¹	O ¹	O ¹	✓
Utilities	Linear Utilities	✓	X	X	X	X	X	X	X
	Point Source Utilities	✓	X	X	X	X	X	X	X
Aquaculture	Aquaculture Licensing	Where a use/activity is outside provincial regulatory authority, the approval of that use/activity is subject to the decision-making process(es) of the responsible authorities. Absence of a use/activity in this table does not imply that activities were not considered or evaluated in the above recommendations, or that the use/activity is of no interest. Consistency with proposed IUCN designations is supported by the Council of Haida Nation and the Province of BC and conditional activities will be determined based on area-specific values.							
Fisheries	Commercial Fisheries								
	Recreational Fisheries: Guided and Non-Guided (Shellfish and Finfish)								
Transportation & Navigation	Transportation								
	Temporary Port Vessel Anchorage								

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Key:

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Acceptable: Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	✓
Conditionally Acceptable: The use/activity is acceptable provided it is consistent with (adheres to) the plan conditions. Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	O
Not Acceptable: Uses and activities are considered not acceptable and should not be approved by the appropriate management body(ies).	X
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- O³: infrastructure enabling Haida access to adjacent reserve lands permitted
- O⁴: activity must be compatible with Haida cultural use of the area, including consideration of Haida activities and/or stewardship knowledge; site limitations to identified in an approved Protection Management Plan

Additional Considerations

Coates Creek Estuary: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Hippa and Sadler Islands: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Port Louis - Athlow Small Islands: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

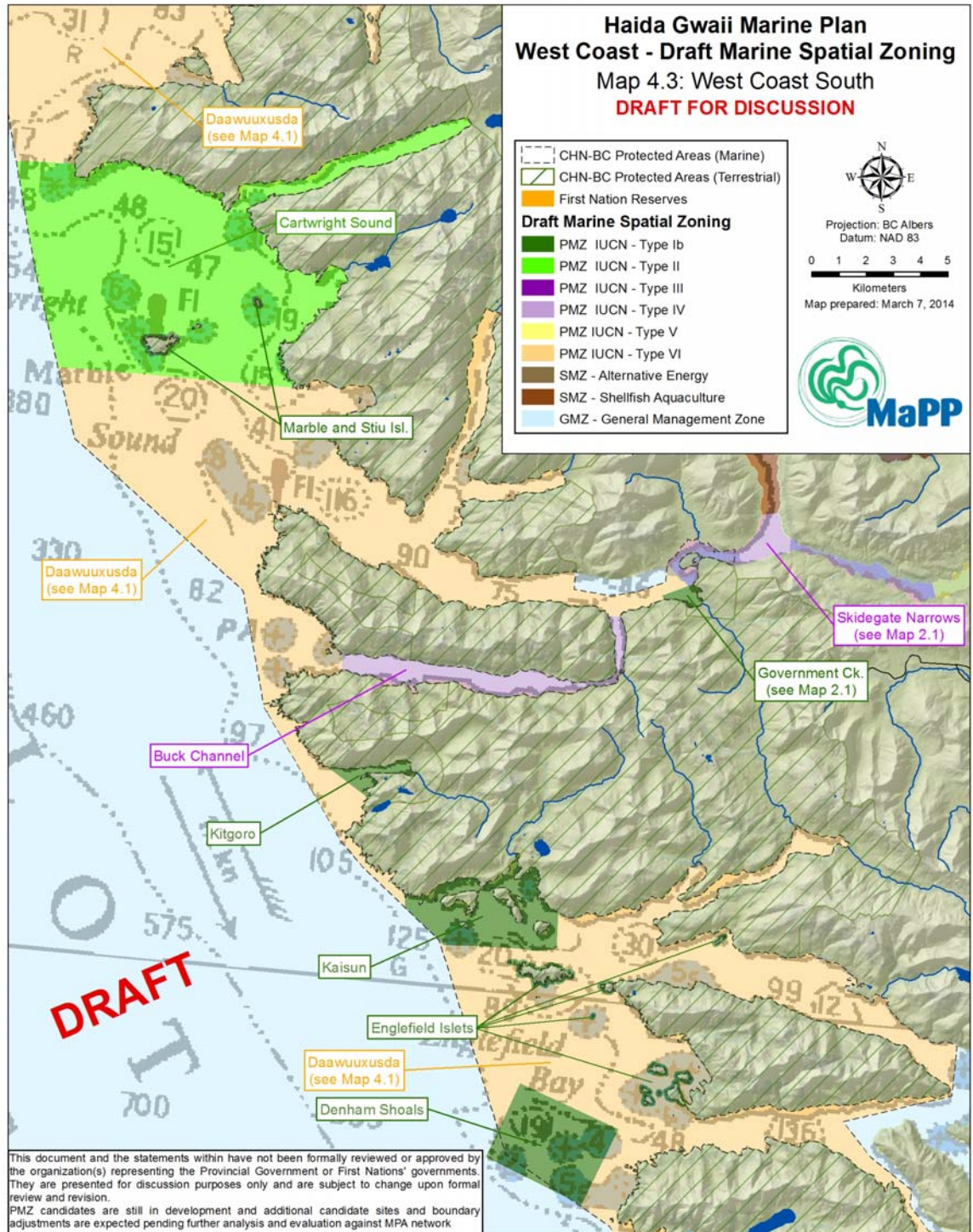
Otard Creek Estuary: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

V.J. Krijina: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Tian to Hippa: Sensitive benthic habitat and species values may be impacted by trawl activities. Enhanced local monitoring and enforcement may be needed for protection of ecological and cultural values. Sensitive or critical features and habitat may be negatively impacted by large commercial vessels, though it is noted that barges carrying fuel and equipment/supplies is an important activity occurring in the area.

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Map 4.3. Map of West Coast – South, showing Draft Marine Spatial Zoning



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1337 **Table 8-22. West Coast – South PMZ Candidates**

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Zone Name	PMZ / SMZ Category	Size (km²)	Management Objective(s) for Provincial and Haida values
Buck Channel	IUCN - Type IV	7.7	Protection of multiple salmon streams and area of Haida traditional use.
Cartwright Sound	IUCN - Type II	72.4	Protection of nearshore rockfish habitat and associated species assemblages, colonies and foraging area for listed seabird species, and an important area of Haida traditional use.
Denham Shoals	IUCN - Type Ib	12.1	Protection of rockfish habitat and associated species assemblages, and foraging habitat for listed bird species.
Englefield Islets	IUCN - Type Ib	2.1	Protection of nesting colonies and adjacent foraging habitat for listed bird species.
Kaisun	IUCN - Type Ib	10.7	Protection of estuary of a significant salmon stream, nearshore rockfish habitat, foraging habitat for listed bird species and an important Haida traditional use area.
Kitgoro	IUCN - Type Ib	1.4	Protection of multiple salmon streams, foraging habitat for listed bird species and important Haida values.
Marble - Stiu Islands	IUCN - Type Ib	0.6	Protection of nesting colonies and adjacent foraging habitat for listed bird species.

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1340 **Table 8-23. Recommended Uses and Activities for West Coast – South Proposed Marine Zones**

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		Site Name	General Management Zone	Denham Shoals	Englefield Islets	Kaisun	Kitgoro	Marble and Stiu Isl.	Cartwright Sound	Buck Channel
		Zone Type	GMZ	PMZ IUCN Ib					PMZ IUCN II	PMZ IUCN IV
Category	Marine Uses and Activities									
Aquaculture	Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	X	X	X	X	X	X	X	X
	Off Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	X	X	X	X	X	X	X	X
	Off-Bottom Aquaculture – Finfish	X	X	X	X	X	X	X	X	X
Energy	Renewable Energy Generation	✓	X	X	X	X	X	X	X	X
Industry	Forestry Operations	✓	X	X	X	X	X	X	X	X
	Mining Operations	✓	X	X	X	X	X	X	X	X
Infrastructure	Commercial and Recreational Anchorages	✓	X	X	X	X	X	O ^{2,4}	O ^{2,4}	
	Float Homes	✓	X	X	X	X	X	X	X	
	Floating Lodges	✓	X	X	X	X	X	X	X	
	Level 1 Docks, Wharves & Facilities	✓	X	X	X	X	X	X	O ^{2,4}	
	Level 2 Docks, Wharves & Facilities	✓	X	X	X	X	X	X	X	
Recreation/ Tourism	Commercial Recreation and Tourism	✓	O ²	O ²	O ^{2,4}	O ²	O ²	O ^{2,4}	✓	
	Public Recreation and Tourism	✓	O ²	O ²	O ^{2,4}	O ²	O ²	O ^{2,4}	✓	
Research	Research	✓	O ¹	O ¹	O ^{1,4}	O ¹	O ¹	O ^{1,4}	✓	
Utilities	Linear Utilities	✓	X	X	X	X	X	X	X	X
	Point Source Utilities	✓	X	X	X	X	X	X	X	X
Aquaculture	Aquaculture Licensing	Where a use/activity is outside provincial regulatory authority, the approval of that use/activity is subject to the decision-making process(es) of the responsible authorities. Absence of a use/activity in this table does not imply that activities were not considered or evaluated in the above recommendations, or that the use/activity is of no interest. Consistency with proposed IUCN designations is supported by the Council of Haida Nation and the Province of BC and conditional activities will be determined based on area-specific values.								
Fisheries	Commercial Fisheries									
	Recreational Fisheries: Guided and Non-Guided (Shellfish and Finfish)									
Transportation & Navigation	Transportation									
	Temporary Port Vessel Anchorage									

1342

Key:

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Conditionally Acceptable: The use/activity is acceptable provided it is consistent with (adheres to) the plan conditions. Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	O
Not Acceptable: Uses and activities are considered not acceptable and should not be approved by the appropriate management body(ies).	X
<p><i>*Absence of a use or activity in this table should not imply that the use or activity is of no interest or is acceptable. The reader should contact the appropriate management body(ies) for clarification in such circumstances.</i></p> <p>Note: This table does not alter the Council of Haida Nation and Province of BC referral obligations under existing agreements.</p>	

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- O⁴: activity must be compatible with Haida cultural use of the area, including consideration of Haida activities and/or stewardship knowledge; site limitations to be identified in an approved Protection Management Plan

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Additional Considerations

Denham Shoals: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Englefield Islets: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Kaisun: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Kitgoro: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Marble and Stiu Isl.: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Cartwright Sound: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels.

Buck Channel: Commercial value of salmon is high. Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

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1348 **8.5.5 Hecate Strait North**

1349 *...all through this whole location here, from Limestone to Skedans, you can pick up all these*
1350 *rock cods and halibut and salmon, when they're running. And coming through here all the*
1351 *time are humpback whales and killer whales ... because this is a place for seals—the killer*
1352 *whales hunt and hunt and hunt. ... Limestone, of course, is the Ancient murrelet ... nightbirds*
1353 *... there's a few places around here where the food likes to congregate around a reef, and*
1354 *the salmon are there too. And that's why the killer whales come through here; they look for*
1355 *salmon or they look for the seals. Humpback whales and whatnot just cruise through ... Yeah.*
1356 *That's a busy spot. (Captain Gold, Mar. 2009)*

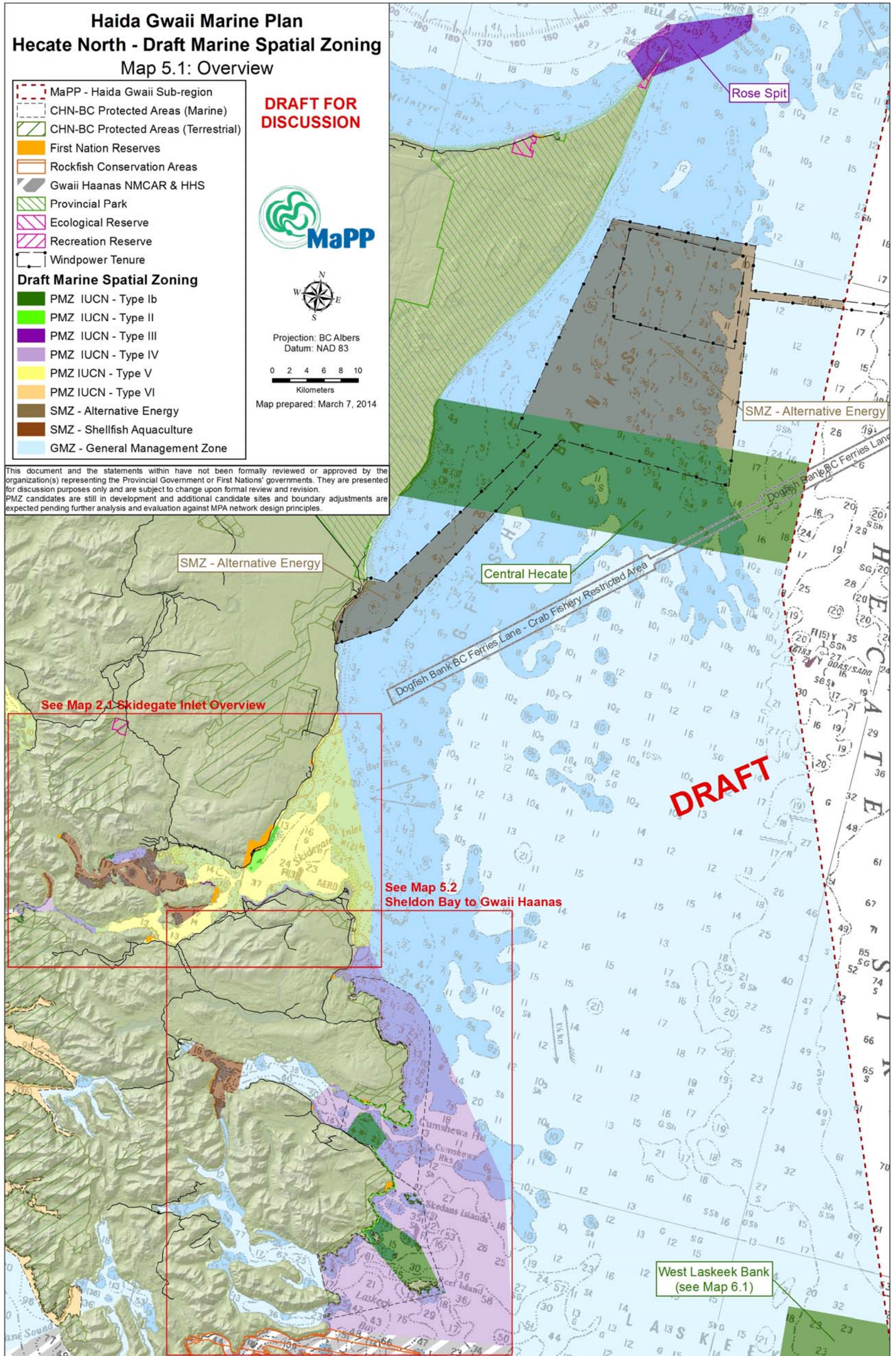
1357 Hecate Strait is a large, shallow semi-protected strait within the Queen Charlotte Basin. Due to its
1358 shallow depth it is susceptible to violent weather during storms. The northern part of the Strait is
1359 dominated by the shallow Dogfish and Laskeek Banks. The bathymetry and oceanographic features in
1360 the area result in high productivity and significant plankton aggregations.

1361 Hecate Strait is important for a number of resident and migrating fish, marine mammals and birds. The
1362 shoreline is diverse with a regionally unique coastal beach dune habitat in the north, and rocky
1363 headlands in the south. Other ecological features include: bird colonies, sea lion haulouts, Humpback
1364 and Gray Whale foraging areas, kelp forests and abalone habitat. Many species in Hecate Strait are
1365 important to the traditional Haida way of life and continue to be harvested today. The area now
1366 supports marine use activities by Haidas and others, including fishing for salmon, halibut, dogfish, crab,
1367 and forage fish, harvesting sea asparagus and clams, and hunting for duck and geese. Hecate Strait is
1368 also an important migration pathway for juvenile and adult salmon from rivers through the Pacific
1369 Northwest.

1370 Commercial fishing and marine transportation also occur throughout northern Hecate Strait. In recent
1371 years, the primary fishing activity in this area has been the commercial Dungeness Crab fishery, one of
1372 the most highly valued fisheries on the BC coast. Additionally, the area has been identified as having
1373 high potential for offshore wind energy development. Although the recent proposal by the NaiKun Wind
1374 Energy Group has stalled (due in part to the lack of an electricity purchase agreement with BC Hydro and
1375 limited support within the Haida community), the company maintains an active tenure license and an
1376 Energy SMZ is proposed for the area to allow for the possibility of future development under acceptable
1377 conditions.

1378 Map 5.1 is an overview map of Hecate North. Map 5.2 is a more detailed map of Hecate North –
1379 Sheldon Bay – Gwaii Haanas. A total of 4 IUCN Type Ib, 2 IUCN Type II and 1 IUCN Type IV PMZ
1380 candidates are identified as well as two proposed SMZs: one for Marine-based Alternative Energy and
1381 the other for Shellfish Aquaculture. The proposed category and objectives and recommended uses and
1382 activities for each candidate zone are described in Tables 8-24
1383 to 8-27.

1384 **Map 5.1. Overview Map of Hecate North, including Draft Marine Spatial Zoning**



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1387 **Table 8-24. Hecate North SMZ and PMZ Candidates**

1388

Zone Name	PMZ / SMZ Category	Size (km ²)	Management Objective(s) for Provincial and Haida values
Central Hecate	IUCN - Type Ib	531.7	Protection a portion of a unique oceanographic area (Dogfish Bank) and associated species assemblages and representative habitat within Hecate Strait Ecosection.
SMZ - Alternative Energy - Hecate	SMZ - Alt. Energy	596.0	Prioritization of area for potential wind-farm development.

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1390 **Table 8-25. Recommended Uses and Activities for Hecate North Proposed Marine Zones**

		General Management Zone	SMZ Alternative Energy	Central Hecate
Site Name				
Zone Type		GMZ	SMZ Alt. Energy	PMZ IUCN Ib
Category	Marine Uses and Activities			
Aquaculture	Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	n/a	n/a
	Off Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	n/a	n/a
	Off-Bottom Aquaculture – Finfish	X	n/a	n/a
Energy	Renewable Energy Generation	✓	✓	X
Industry	Forestry Operations	✓	n/a	n/a
	Mining Operations	✓	X	X
Infrastructure	Commercial and Recreational Anchorages	✓	O ⁶	X
	Float Homes	✓	n/a	n/a
	Floating Lodges	✓	n/a	n/a
	Level 1 Docks, Wharves & Facilities	✓	n/a	n/a
	Level 2 Docks, Wharves & Facilities	✓	n/a	n/a
Recreation/ Tourism	Commercial Recreation and Tourism	✓	✓	O ²
	Public Recreation and Tourism	✓	✓	O ²
Research	Research	✓	✓	O ¹
Utilities	Linear Utilities	✓	O ⁶	O ¹⁰
	Point Source Utilities	✓	n/a	X
Aquaculture Licensing		<p>Where a use/activity is outside provincial regulatory authority, the approval of that use/activity is subject to the decision-making process(es) of the responsible authorities. Absence of a use/activity in this table does not imply that activities were not considered or evaluated in the above recommendations, or that the use/activity is of no interest. Consistency with proposed IUCN designations is supported by the Council of Haida Nation and the Province of BC and conditional activities will be determined based on area-specific values.</p>		
Fisheries	Commercial Fisheries			
	Recreational Fisheries: Guided and Non-Guided (Shellfish and Finfish)			
Transportation & Navigation	Transportation			
	Temporary Port Vessel Anchorage			

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Key:

Haida traditional uses, including practices for food, social, ceremonial and stewardship purposes, continue in accordance with legal obligations.	
Acceptable: Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	✓
Conditionally Acceptable: The use/activity is acceptable provided it is consistent with (adheres to) the plan conditions. Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	O
Not Acceptable: Uses and activities are considered not acceptable and should not be approved by the appropriate management body(ies).	X
*Absence of a use or activity in this table should not imply that the use or activity is of no interest or is acceptable. The reader should contact the appropriate management body(ies) for clarification in such circumstances.	
Note: This table does not alter the Council of Haida Nation and Province of BC referral obligations under existing agreements.	

List of Conditional Statements

O¹: only research activities that are non-extractive and will not disturb sensitive or critical features and habitat are acceptable;

O²: must avoid disturbance of sensitive or critical features and habitat; site limitations to be identified in an approved Protection Management Plan

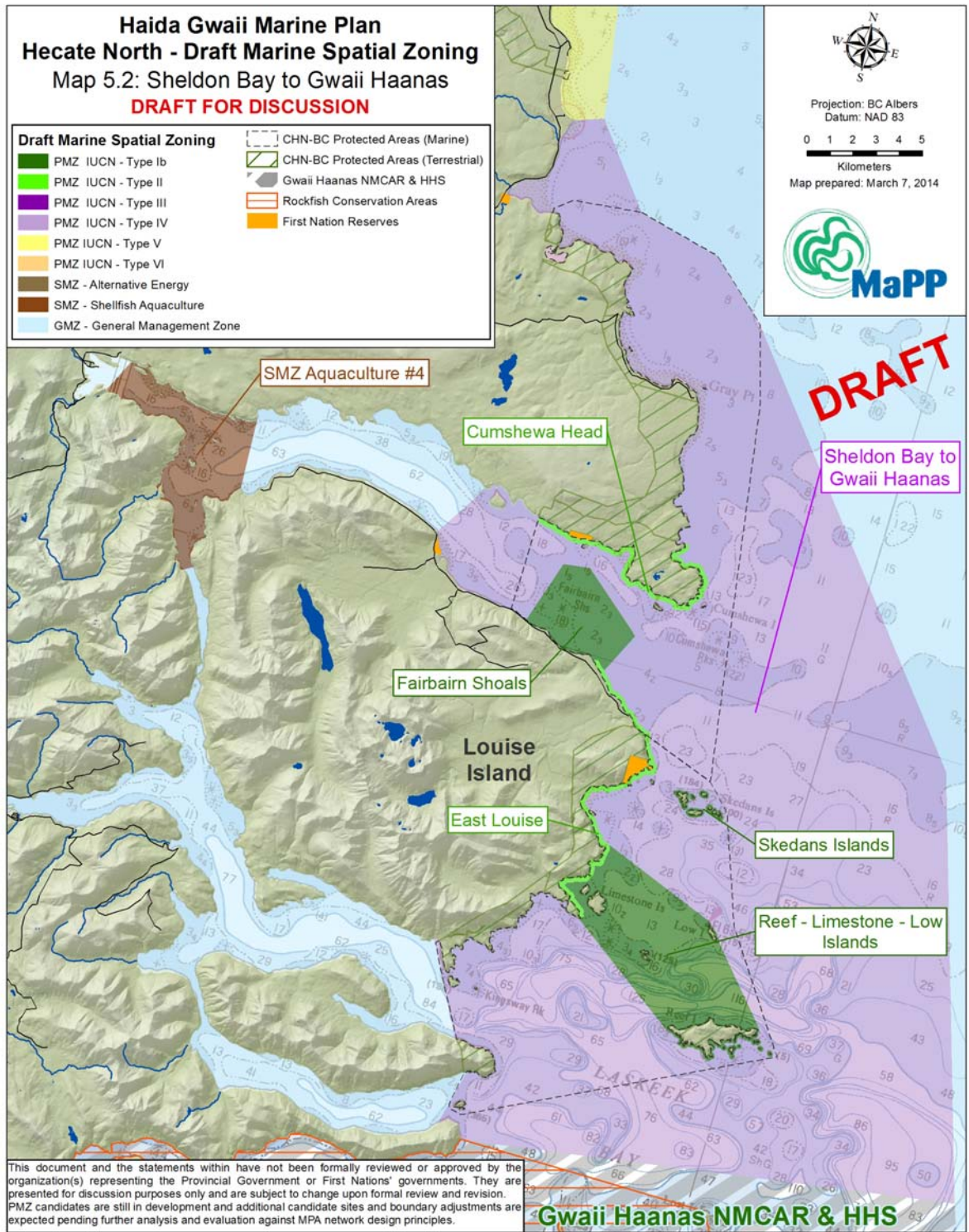
O⁶: activities or infrastructure may be limited by future wind energy development opportunities in area

O¹⁰: existing investigative licence tenure for windpower exists over portions of this PMZ and any future wind energy project development would result in lower IUCN designation for portions of area affected by associated infrastructure

Additional Considerations

Central Hecate: Economic value of transportation activities in the area is high.

1394 **Map 5.2. Map of Hecate North - Sheldon Bay – Gwaii Haanas showing Draft Marine Spatial Zoning**



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1397 **Table 8-26. Hecate North – Sheldon Bay – Gwaii Haanas SMZ and PMZ Candidates**

1398

Zone Name	PMZ / SMZ Category	Size (km²)	Management Objective(s) for Provincial and Haida values
SMZ-Shellfish 4	SMZ - Shellfish Aquaculture	19.9	To allocate space and maintain ecological conditions for sustainable shellfish aquaculture activities.
Cumshewa Head	IUCN - Type II	2.9	Protection of important nearshore ecological values and Haida traditional use areas.
East Louise Island	IUCN - Type II	3.6	Protection of significant salmon stream, eelgrass and bull kelp habitat and foraging habitat for listed bird species as well as areas of high traditional use.
Fairbairne Shoals	IUCN - Type Ib	11.8	Protection of unique benthic features – extensive kelp bed on substrate dominated by boulders.
Reef - Limestone Islands	IUCN - Type Ib	33.0	Protection of nearshore ecological values, nearshore rockfish habitat, listed seabird colonies and adjacent foraging areas, and important traditional use areas.
Sheldon Bay to Gwaii Haanas	IUCN - Type IV	520.7	Protection of significant salmon streams, locations of historical herring spawn, foraging areas for listed bird species and inshore rockfish habitat.
Skedans Islands	IUCN - Type Ib	0.8	Protection of nearshore ecological values, listed seabird colonies and an important traditional use area.

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1401 **Table 8-27. Recommended Uses and Activities for Hecate North - Sheldon Bay – Gwaii Haanas Proposed Marine Zones**

1402

Site Name		General Management Zone	SMZ Aquaculture #4: Cumshewa	Fairbairn Shoals	Reef - Limestone - Low Islands	Skedans Islands	Cumshewa Head	East Louise	Sheldon Bay to Gwaii Haanas
		Zone Type	GMZ	SMZ	PMZ IUCN Ib			PMZ IUCN II	PMZ IUCN IV
Category	Marine Uses and Activities								
Aquaculture	Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	✓	X	X	X	X	X	X
	Off Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	✓	X	X	X	X	X	X
	Off-Bottom Aquaculture – Finfish	X	X	X	X	X	X	X	X
Energy	Renewable Energy Generation	✓	O ⁷	X	X	X	X	X	X
Industry	Forestry Operations	✓	X	X	X	X	X	X	X
	Mining Operations	✓	X	X	X	X	X	X	X
Infrastructure	Commercial and Recreational Anchorages	✓	O ⁷	X	O ^{2,4}	O ^{2,4}	O ^{2,4}	O ^{2,4}	O ^{2,4}
	Float Homes	✓	X	X	X	X	X	X	X
	Floating Lodges	✓	X	X	X	X	X	X	X
	Level 1 Docks, Wharves & Facilities	✓	O ⁷	X	X	O ^{2,4,8}	O ^{2,3,4}	O ^{2,3,4}	O ^{2,4}
	Level 2 Docks, Wharves & Facilities	✓	X	X	X	X	X	X	X
Recreation/ Tourism	Commercial Recreation and Tourism	✓	✓	O ²	O ^{2,4}	O ^{2,4}	O ^{2,4}	O ^{2,4}	✓
	Public Recreation and Tourism	✓	✓	O ²	O ^{2,4}	O ^{2,4}	O ^{2,4}	O ^{2,4}	✓
Research	Research	✓	✓	O ¹	O ¹	O ¹	O ^{1,4}	O ^{1,4}	✓
Utilities	Linear Utilities	✓	O ⁷	X	X	X	X	X	X
	Point Source Utilities	✓	X	X	X	X	X	X	X
Aquaculture	Aquaculture Licensing	Where a use/activity is outside provincial regulatory authority, the approval of that use/activity is subject to the decision-making process(es) of the responsible authorities. Absence of a use/activity in this table does not imply that activities were not considered or evaluated in the above recommendations, or that the use/activity is of no interest. Consistency with proposed IUCN designations is supported by the Council of Haida Nation and the Province of BC and conditional activities will be determined based on area-specific values.							
Fisheries	Commercial Fisheries								
	Recreational Fisheries: Guided and Non-Guided (Shellfish and Finfish)								
Transportation & Navigation	Transportation								
	Temporary Port Vessel Anchorage								

1403

Key:

Haida traditional uses, including practices for food, social, ceremonial and stewardship purposes, continue in accordance with legal obligations.	
Acceptable: Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	✓
Conditionally Acceptable: The use/activity is acceptable provided it is consistent with (adheres to) the plan conditions. Applications or proposals can be accepted for review by the appropriate management body(ies) and according to required policy and agreements. Acceptance of an application does not guarantee that a use/activity will be approved.	O
Not Acceptable: Uses and activities are considered not acceptable and should not be approved by the appropriate management body(ies).	X
*Absence of a use or activity in this table should not imply that the use or activity is of no interest or is acceptable. The reader should contact the appropriate management body(ies) for clarification in such circumstances.	
Note: This table does not alter the Council of Haida Nation and Province of BC referral obligations under existing agreements.	

1404

List of Conditional Statements

- O¹: only research activities that are non-extractive and will not disturb sensitive or critical features and habitat are acceptable;
- O²: must avoid disturbance of sensitive or critical features and habitat; site limitations to be identified in an approved Protection Management Plan
- O³: infrastructure enabling Haida access to adjacent reserve lands permitted
- O⁴: activity must be compatible with Haida cultural use of the area, including consideration of Haida activities and/or stewardship knowledge; site limitations to be identified in an approved Protection Management Plan
- O⁷: activities or infrastructure may be limited by current aquaculture operations and/or future aquaculture opportunities in area

1405

Additional Considerations

Fairbairn Shoals: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Reef - Limestone - Low Islands: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Skedans Islands: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Cumshewa Head: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

East Louise: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels and smaller freight or log boom towing vessels.

Sheldon Bay to Gwaii Haanas: Sensitive or critical features and habitat may be negatively impacted by large commercial vessels, though it is noted that log barge loading at storage/handling facilities is an important activity in the area. Sensitive benthic habitat and species values may be impacted by trawl activities. Enhanced monitoring and enforcement may be needed for protection of ecological and cultural values.

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1409 **8.5.6 Gwaii Haanas Offshore and Northwest Queen Charlotte Sound**

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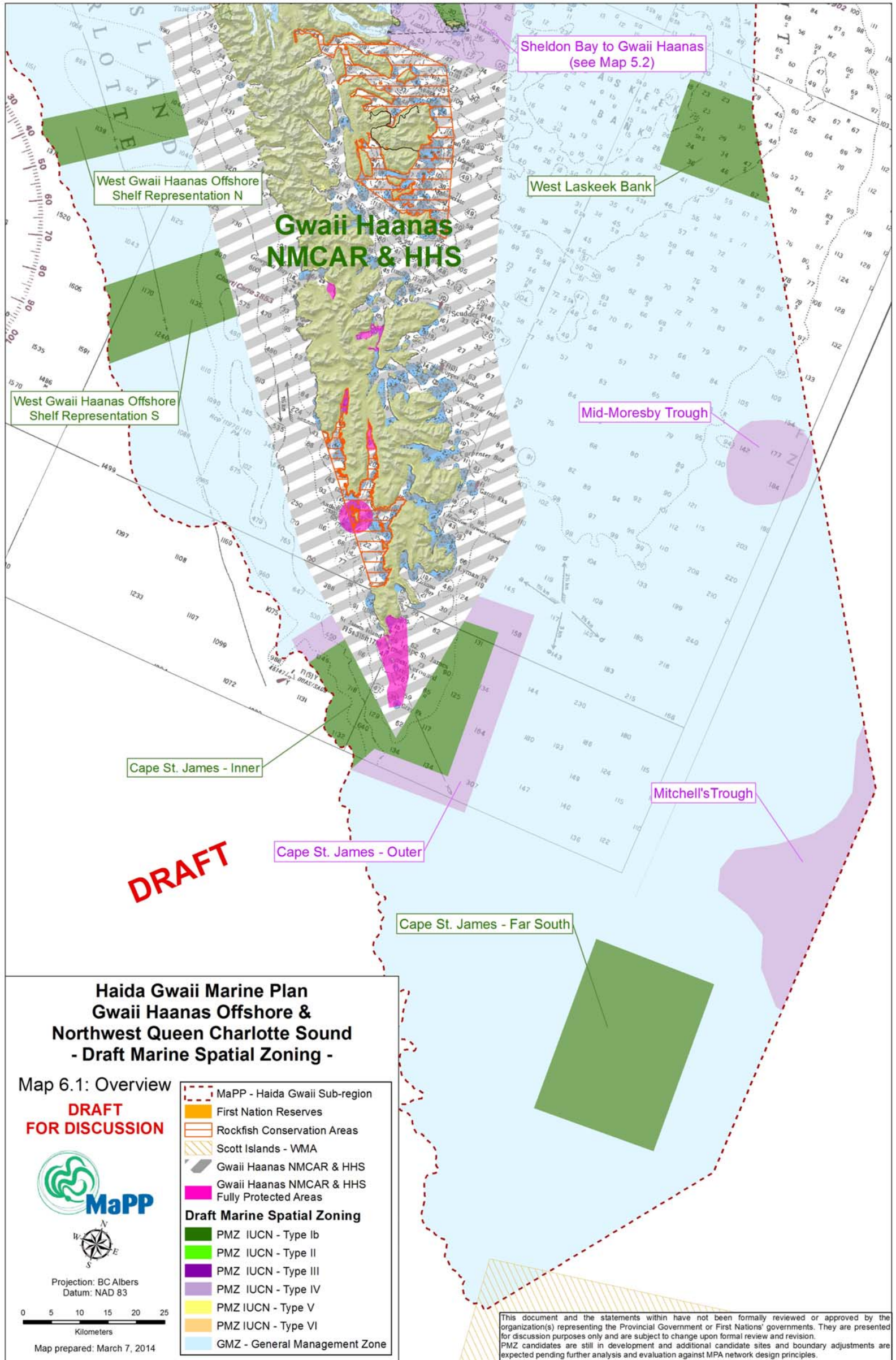
1411 *My dad and them used to fish black cod. But they'd just salt it. ... For them,*
1412 *everything salted. ... [They fished it with] longline... on a little boat... they used to*
1413 *get regular groundline, only it's heavy-tarred... They used to whip it on with fine*
1414 *twine... [they used steel hooks with] shanks, on the back. Like dogfish hooks.*
1415 *Only these were smaller, for cod. ... You use herring [for bait]. There's lots of*
1416 *herring around... because the herring comes in then, around... the summer time*
1417 *here. That's when they used to get all the halibut and the black cod and things...*
1418 *just [for] the family. (Roy Jones Sr., Aug. 1998)*

1419 This area borders Gwaii Haanas National Marine Conservation Area Reserve and includes
1420 southern Hecate Strait, part of the west coast, part of Queen Charlotte Sound, and the area south
1421 of Cape St. James – an area known for extreme weather, wind and waves. It is also a place of
1422 unique bathymetry, oceanographic features and high productivity, supporting spawning and
1423 rearing grounds for many fish species including sablefish, halibut and rockfish. This is in part due
1424 to the large gullies and canyons that cut across the continental shelf and bring nutrient-rich
1425 waters into the Queen Charlotte Basin. At the head of the gullies and canyons are globally unique
1426 reef-forming sponges and corals, their formation believed to be linked to the upwelling of
1427 offshore waters. These complexes are important habitat for many invertebrates and fish species,
1428 including commercially and culturally important species. The region south of Cape St. James has
1429 also been identified as a nutrient “transport hub” – Haida Eddies passing by the cape carry
1430 concentrations of plankton that are transported up the coast into the Gulf of Alaska. The
1431 abundance of the area also attracts large concentrations of marine birds and mammals.

1432 The high productivity of this area has resulted in intense fishing pressure over the years.
1433 Sablefish, halibut and rockfish are caught using multiple gear types including traps, long lines and
1434 trawl. The area's ecological values are significant at a coastwide scale and protection of these
1435 values, while also allowing for ongoing and future economic opportunities, requires balancing
1436 protection with responsible fisheries management strategies.

1437 Map 6.1 is an overview map of Gwaii Haanas Offshore and Northwest Queen Charlotte Sound. A
1438 total of 5 IUCN Type Ib, and 3 IUCN Type IV PMZ candidates are identified. The proposed
1439 category and objectives for each candidate zone are described in Table 8-28 and Table 8-29 lists
1440 recommended uses and activities.

1441 **Map 6.1. Overview of Gwaii Haanas Offshore and NW Queen Charlotte Sound, including Draft Marine Spatial Zoning**



1442

1443 **Table 8-28. Gwaii Haanas Offshore and NW Queen Charlotte Sound PMZ Candidates**

1444

Zone Name	PMZ / SMZ Category	Size (km²)	Management Objective(s) for Provincial and Haida values
Cape St. James - Far South	IUCN - Type Ib	710.2	Protection of representative habitat of the Continental Slope and Queen Charlotte Sound Ecosections.
Cape St. James - Inner	IUCN - Type Ib	405.7	Protecting portions of unique areas and associated species assemblages – Shelf Break and Cape St. James oceanographic regions (EBSA).
Cape St. James - Outer	IUCN - Type IV	330.9	Protecting portions of unique areas and associated species assemblages – Shelf Break and Cape St. James oceanographic regions (EBSA), and protection of cold water corals and sponges.
Mid-Moresby Trough	IUCN - Type IV	187.2	Protection of cold water corals and sponges.
Mitchell's Trough	IUCN - Type IV	443.4	Protection of cold water corals and sponges.
Outer Gwaii Haanas to Shelf - Rep. Band North	IUCN - Type Ib	205.4	Protecting representative habitat of the Continental Slope Ecosection and unique shelf break habitat with associated species assemblages.
Outer Gwaii Haanas to Shelf - Rep. Band South	IUCN - Type Ib	290.0	Protecting representative habitat of the Continental Slope Ecosection and unique shelf break habitat with associated species assemblages.
West Laskeek Bank	IUCN - Type Ib	256.4	Protection of representative habitat of the Continental Slope and Queen Charlotte Sound Ecosections.

1445 **Table 8-29. Recommended Uses and Activities for Gwaii Haanas Offshore and NW Queen Charlotte Sound Proposed Marine Zones**

Site Name		General Management Zone	Cape St. James - Inner	Cape St. James - Far South	West Gwaii Haanas Offshore Shelf Rep N	West Gwaii Haanas Offshore Shelf Rep S	West Laskeek Bank	Cape St. James - Outer	Mid-Moresby Trough	Mitchell's Trough
Zone Type		GMZ	PMZ IUCN Ib					PMZ IUCN IV		
Category	Marine Uses and Activities									
Aquaculture	Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Off Bottom Aquaculture – Plants, Shellfish, Other Invertebrates	✓	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Off-Bottom Aquaculture – Finfish	X	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Energy	Renewable Energy Generation	✓	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Industry	Forestry Operations	✓	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Mining Operations	✓	X	X	X	X	X	X	X	X
Infrastructure	Commercial and Recreational Anchorages	✓	X	X	X	X	X	X	X	X
	Float Homes	✓	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Floating Lodges	✓	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Level 1 Docks, Wharves & Facilities	✓	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Level 2 Docks, Wharves & Facilities	✓	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Recreation/ Tourism	Commercial Recreation and Tourism	✓	O ²	O ²	O ²	O ²	O ²	✓	✓	✓
	Public Recreation and Tourism	✓	O ²	O ²	O ²	O ²	O ²	✓	✓	✓
Research	Research	✓	O ¹	O ¹	O ¹	O ¹	O ¹	✓	✓	✓
Utilities	Linear Utilities	✓	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Point Source Utilities	✓	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Aquaculture	Aquaculture Licensing	Where a use/activity is outside provincial regulatory authority, the approval of that use/activity is subject to the decision-making process(es) of the responsible authorities. Absence of a use/activity in this table does not imply that activities were not considered or evaluated in the above recommendations, or that the use/activity is of no interest. Consistency with proposed IUCN designations is supported by the Council of Haida Nation and the Province of BC and conditional activities will be determined based on area-specific values.								
Fisheries	Commercial Fisheries									
	Recreational Fisheries: Guided and Non-Guided (Shellfish and Finfish)									
Transportation & Navigation	Transportation									
	Temporary Port Vessel Anchorage									

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This document and the statements within have not been formally reviewed or approved by the organization(s) representing the Council of the Haida Nation and/or Province of British Columbia. They are presented for discussion purposes only, and are subject to change upon formal review and revision.

Key:

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Not Acceptable: Uses and activities are considered not acceptable and should not be approved by the appropriate management body(ies).	X
<p><i>*Absence of a use or activity in this table should not imply that the use or activity is of no interest or is acceptable. The reader should contact the appropriate management body(ies) for clarification in such circumstances.</i></p> <p>Note: This table does not alter the Council of Haida Nation and Province of BC referral obligations under existing agreements.</p>	

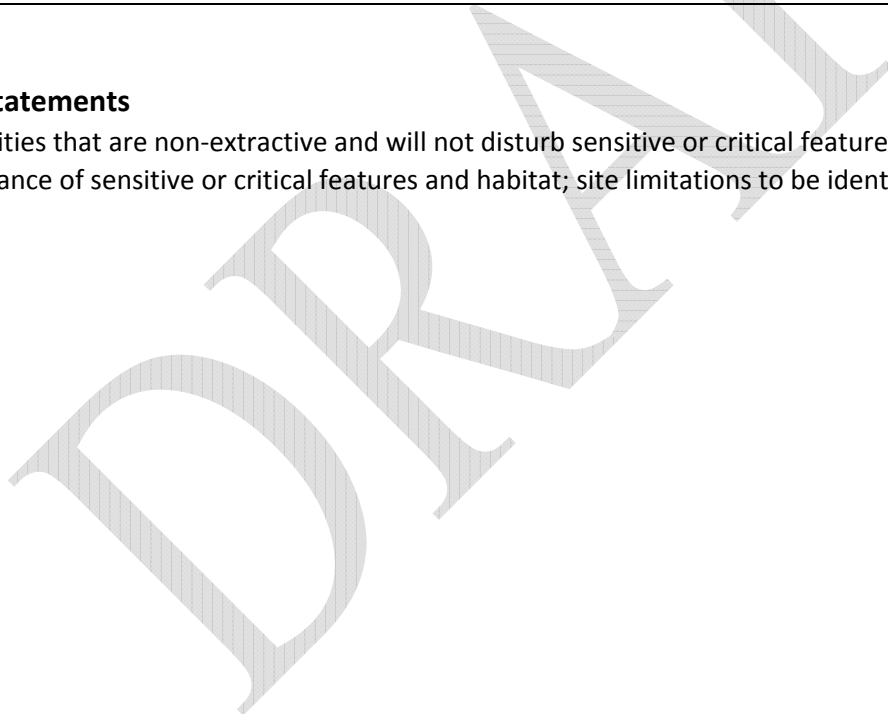
1450

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O²: must avoid disturbance of sensitive or critical features and habitat; site limitations to be identified in an approved Protection Management Plan

1451



Additional Considerations

Cape St. James - Inner: Economic value of transportation activities through the area is high.

Cape St. James - Far South: Economic value of transportation activities through the area is high.

West Gwaii Haanas Offshore Shelf Rep N: Economic value of transportation activities through the area is high.

West Gwaii Haanas Offshore Shelf Rep S: Economic value of transportation activities through the area is high.

West Laskeek Bank: Economic value of transportation activities through the area is high.

Cape St. James - Outer: Sensitive or critical features and habitat, particularly cold water corals and sponges known to occur in the region, may be negatively impacted by bottom contact fisheries. Economic value of transportation activities through the area is high.

Mid-Moresby Trough: Sensitive or critical features and habitat, particularly cold water corals and sponges known to occur in the region, may be negatively impacted by bottom contact fisheries. Economic value of transportation activities through the area is high.

Mitchell's Trough: Sensitive or critical features and habitat, particularly cold water corals and sponges known to occur in the region, may be negatively impacted by bottom contact fisheries. Economic value of transportation activities through the area is high.

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1455 **9. PLAN IMPLEMENTATION, MONITORING AND AMENDMENT**

1456 The Haida Gwaii Marine Plan provides policy direction regarding marine uses, activities and values
1457 throughout the Plan area. The objectives and strategies outlined in Sections 6 and 7 apply to all marine
1458 resources and values and provide a baseline for management. The GMD applies within Protection
1459 Management Zones and Special Management Zones unless otherwise indicated in the direction given
1460 for each zone.

1461 During implementation, some of the spatial and aspatial aspects of this Plan will be established as legal
1462 direction under provincial legislation and Haida laws. The Province and/or CHN may bring other topics
1463 related to marine planning forward for tripartite discussion between CHN, Province and Government of
1464 Canada, including discussions that may occur related to the Canada-BC MPA Network Strategy. Options
1465 for enacting various components of the Plan are set out in Appendix 8.

1466 The goals, objectives and strategies identified in the final Haida Gwaii Marine Plan will be put into action
1467 following the development of an implementation workplan. The general approach for implementation
1468 of the Plan will be set out in an Implementation Agreement, to be signed by the Haida Nation and BC.
1469 The Implementation Agreement is anticipated to include a workplan (including planning priorities) and
1470 associated commitments to plan implementation, review and amendments.

1471 The Haida Nation and BC recognize that effective implementation of the Marine Plan will require human
1472 resourcing and long-term funding. Both parties are working together to identify resourcing
1473 requirements and establish implementation funding mechanisms. Implementation will occur within
1474 existing programs and resources, where possible. The Plan may require new work to be implemented as
1475 funding permits and innovative funding and partnerships will be explored.

1476 **9.1 Marine Plan Monitoring and Implementation Committee**

1477 Implementation of the final Haida Gwaii Marine Plan will involve the creation of a technical coordinating
1478 body assigned with guiding and overseeing the implementation process. A proposed Marine Plan
1479 Monitoring and Implementation Committee (MPMIC) will be comprised of technical representatives
1480 from the CHN and the provincial government. A joint Terms of Reference will clearly outline the roles,
1481 scope of responsibilities, and engagement schedule of the MPMIC. MPMIC's linkages to existing (or
1482 modified) governance structures on Haida Gwaii are currently under discussion by the CHN and Province
1483 of BC.

1484 MPMIC's work will be guided by the priorities identified in Section 9.2 and the implementation workplan
1485 to be developed by the Haida Nation and BC that will articulate how each objective and strategy in this
1486 Plan can be achieved. The workplan will describe actions associated with each strategy, identify the
1487 parties involved, funding required and attribute general timelines to achieve implementation. It will
1488 respect the jurisdictional authorities of each party and will consider engagement with stakeholders who
1489 have a particular interest in key issues, objectives and strategies.

1490 The MPMIC will be responsible for coordinating the various parties involved in planning and
1491 implementation. Existing agencies or departments will be tasked with carrying out parts of the Plan as
1492 appropriate, depending on funding and staff availability. Similarly, other organizations and individuals
1493 may assist with plan implementation.

1494 9.2 Marine Planning Priorities

1495 Objectives and strategies in the final Marine Plan will be implemented on a priority basis, as set out in
1496 the Haida Gwaii Implementation Agreement and overseen by the MPMIC. While all of the strategies
1497 identified in the Plan are important elements of an integrated EBM approach for Haida Gwaii waters,
1498 **XX** priorities highlight key objectives and strategies to be implemented in the near-term. These
1499 priorities have been identified based on the following criteria: **[list of criteria to be added]**

1500 The goal is to implement all strategies over the longer term and strategies will be implemented as
1501 funding and other resources permit. Continued collaboration and integration will be essential as work is
1502 conducted on all Plan strategies.

1503 The following have been identified by the Haida Nation and BC as priorities:

1504 **[Insert summary table – to be completed]**

1505 9.3 Socio-economic, Cultural and Ecological Assessment

1506 The Haida Gwaii Marine Plan provides a coordinated and sustainable approach to how the marine
1507 environment is managed and used. The Plan provides opportunities for marine resources and services to
1508 be utilized within clear environmental limits, while ensuring that marine ecosystems remain healthy and
1509 biodiversity is conserved. Properly executed, the Plan is expected to have an overall positive impact on
1510 the cultural, ecological, social and economic future of Haida Gwaii.

1511 The Haida Nation and BC recognize it is important to assess the potential positive and negative effects of
1512 the Plan, as changes resulting from the Plan will affect different users in different ways. A process for
1513 plan assessment is under development and will be further informed by public review. Details will be
1514 forthcoming for the MaPP region and Haida Gwaii.

1515 **[Placeholder for summary of assessment process]**

1516

1517

1518 9.4 Indicators and Monitoring

1519 There are two measures that are important to consider when reporting on plan implementation: plan
1520 performance and plan effectiveness.

1521 Plan performance indicators track progress towards
1522 completion of the implementation workplan. Examples of
1523 ‘performance indicators’ include the number of projects
1524 completed, number of requests for variance, number of
1525 reports of non-compliance with plan zoning, number of
1526 agency staff actively using the Marine Plan as part of
1527 planning and decision-making. The status of performance
1528 indicators will be reported each year in the Annual Report
1529 (see Section 9.6).

1530 Plan effectiveness is determined by EBM indicators and
1531 associated monitoring. EBM indicators track how effectively
1532 the desired EBM-related outcomes (objectives) in the Marine
1533 Plan are being achieved.

1534 EBM monitoring tracks the state of ecological and human
1535 wellbeing on Haida Gwaii. Indicators measure changes in
1536 ecological, social, cultural and economic values over time as
1537 well as the magnitude of drivers or stressors on each value.
1538 Trends in indicators indicate whether Plan objectives are
1539 being achieved as well as providing warning signs about
1540 potential or growing threats to marine resources.

1541 Indicators for the Haida Gwaii Marine Plan will be identified
1542 for key EBM components through a regional MaPP process that can be adapted and applied at the sub-
1543 regional (Haida Gwaii) scale. Indicators are organized under four categories: Social (including Cultural),
1544 Economic, Governance (Institutional), and Physical/Technological.

1545 A Marine Plan Monitoring Strategy will set out priorities, timelines and responsibilities for monitoring of
1546 EBM indicators. A comprehensive EBM Monitoring Report on the status of ecological and human
1547 wellbeing indicators will be published every five years. The EBM Monitoring Report will inform the
1548 review, amendment and updating of the Plan by tracking measurable changes in ecological and human
1549 well-being values. Monitoring helps decision-makers to detect and evaluate changes, providing a basis
1550 for adjusting decisions or actions. This adaptive management approach also increases plan effectiveness
1551 over time.

1552

Adaptive Management

Adaptive management is ‘learning by doing.’ It is a systematic approach to monitoring that allows us to learn from the outcomes of implemented management strategies and improve our approach to managing marine resources over time. It allows for informed decision-making despite ecological uncertainties and data limitations. In adaptive management, monitoring is deliberately designed to study the effectiveness of strategies in achieving plan objectives and to inform amendments to those strategies, as needed. An adaptive management approach can also be used to test alternative strategies and compare outcomes.

1553 9.5 Plan Compliance

1554 As elements of an approved Plan are implemented it will be necessary to ensure that Plan objectives are
1555 adhered to. Supporting documents, such as regulations or management plans, may need to be revised
1556 to be consistent with planning objectives. Marine Plan objectives and recommended uses and activities
1557 within SMZs and PMZs will be considered during screening of tenure applications for provincially-
1558 regulated and Haida managed marine activities and uses. The general public will also need to be made
1559 aware of any regulations, zoning designations or permit/licencing requirements.

1560 Increased levels of compliance will result from resource users understanding what “the rules” are and
1561 how decisions are made. Specifically, users should be able to clearly understand:

- 1562 • User requirements and any exceptions or variances;
- 1563 • How compliance will be determined (clear procedures); and
- 1564 • Deadlines for compliance.

1565 The Plan’s compliance and enforcement approach must also be flexible enough be applied in individual
1566 permits, licenses or variances as required. As part of the authorization process, all land- and marine-
1567 based activities that affect the intertidal, nearshore and offshore waters in the Plan area will need to be
1568 consistent with the Haida Gwaii Marine Plan.

1569 9.6 Plan Evaluation, Review and Amendment

1570 The Haida Gwaii Marine Plan is, inevitably, a snapshot in time. The Plan is intended to be a living
1571 document that will be updated over time to remain relevant as issues, priorities and conditions change.
1572 Where improved knowledge or monitoring results indicate that different strategies or management
1573 approaches would be better suited to achieving goals and objectives, the Haida Nation and BC are
1574 committed to being responsive to those needs.

1575 The MPMIC will prepare an Annual Report that summarizes the status of performance indicators. A list
1576 of implementation issues, achievements, plan variation requests, and any public comments received
1577 during the reporting period will be recorded in the Annual Report. The Annual Report will be used to
1578 assess progress towards plan implementation and overall compliance with the Marine Plan. A
1579 comprehensive re-evaluation of the Plan is anticipated to be conducted collaboratively by MPMIC every
1580 5 years. The comprehensive review will consider emerging management needs and priorities, as well as
1581 results from Annual Reports and the 5-Year EBM Monitoring Report.

1582 Any request for a variation to a zoning requirement will be reviewed by both the Haida Nation and BC.
1583 Applications for variance will be assessed based on conditions determined by both parties. These
1584 conditions may include consideration of new technologies/methods of operation, new activities or
1585 ventures, and/or new information not available at the time of Plan development. A successful request
1586 for variation will not automatically result in a change to the Plan’s acceptable use provisions for specific
1587 zones. Permanent change to such provisions may, however be considered at the time of annual review if

1588 there have been a large number of successful variation requests. Recommended plan amendments,
1589 including revised actions or other plan adjustments will be forwarded to both the Haida Nation and BC.

1590 Where appropriate, the Plan will be revised to reflect changing circumstances and conditions as they
1591 arise. This adaptive approach will allow for improved management and responsible stewardship by the
1592 Haida Nation and BC over both the short and long term.

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1599 **DEFINITIONS**

1600 See also the MaPP Glossary (2013c)

1601 **Aboriginal Aquatic Resource and Oceans Management Program** – A DFO-administered program that
1602 provides funding to qualifying Aboriginal groups to participate in advisory and decision-making
1603 processes related to aquatic resource and oceans management.

1604 **Aboriginal Fisheries Strategy (AFS)** - A DFO program that seeks to provide for the management and
1605 regulation of fishing by Aboriginal groups through the negotiation of mutually acceptable and time-
1606 limited fisheries agreements between DFO and Aboriginal groups.

1607 **Adaptive management** - A systematic process for continually improving management policies and
1608 practices by learning from the outcomes of previously employed policies and practices.

1609 **Archipelago** - A large group of islands.

1610 **Blue Ocean Institute** – A non-governmental organization that provides information on the ocean
1611 environment, including guidelines for sustainable seafood choices.

1612 **BC Marine Conservation Analysis (BCMCA)** – A set of spatial products (maps, Marxan modelling) to
1613 inform marine planning and management initiatives. One product is the Marine Atlas of Pacific Canada,
1614 illustrating ecological and human use features.

1615 **BC Species and Ecosystems Explorer** – A tool managed by the BC Ministry of Environment to provide up-
1616 to-date information on the global, national and provincial conservation status of plants, animals and
1617 ecological communities in BC.

1618 **Commercial fisheries** - Fisheries conducted for the purpose of commercial sale under a commercial
1619 fishing licence or other authority.

1620 **Community-based fisheries** – Island-based community participation in the various commercial fisheries
1621 that occur in the waters around Haida Gwaii, including harvesting, processing, marketing and
1622 management.

1623 **Cumulative effects** - Changes to environmental, social, and economic values caused by the combined
1624 effect of present, past and reasonably foreseeable actions or events.

1625 **Cumulative effects assessment** - A policy tool that employs qualitative and quantitative techniques for
1626 understanding the collective environmental impacts ('cumulative effects') of human activities.

1627 **Damaged** – Physical harm done to something, reducing its value or usefulness.

1628 **Degraded** – Degeneration of structure or function, to the point that it is less than normal in degree or
1629 intensity or amount.

1630 **Ecological integrity** - A condition that is determined to be characteristic of its natural region and likely to
1631 persist, including abiotic components and the composition and abundance of native species and
1632 biological communities, rates of change and supporting processes.

- 1633 **Ecosystem-based management** - An adaptive, systematic approach to managing human activities that
1634 seeks to ensure the co-existence of healthy, fully functioning ecosystems and human communities.
- 1635 **Environmental assessment / environmental impact assessment** - Review of proposed major projects to
1636 assess their potential impacts on the environment. In order for a major project to proceed, an EA
1637 review must be completed and the proposed project approved.
- 1638 **General Management Zone (GMZ)** - Allocates space for a wide range of sustainable marine uses and
1639 activities using an EBM framework. The GMZ recognizes that many coastal or marine areas have no
1640 over-arching priorities for uses or activities, and that a large number of activities do not have spatial or
1641 temporal conflicts. Where conflicts may occur, they can be addressed through proper management
1642 prescriptions in combination with the General Management Direction (i.e., general objectives and
1643 strategies) including prohibitions and exceptions for activities that occur on the seabed, pelagic or
1644 surface areas.
- 1645 **Geo-engineering** - The deliberate manipulation of an environmental process.
- 1646 **Governance** – Interactions between government, other social organizations and citizens and the
1647 structures (formal and informal) through which decisions are made.
- 1648 **Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site (Gwaii Haanas)** –
1649 An area identified as a Haida Heritage Site in 1985 and formally established in 2010 as a National
1650 Marine Conservation Area Reserve in the waters around the terrestrial component of Gwaii Haanas to
1651 provide continuous protection from height of land to the depths of the ocean. The marine reserve is
1652 reserved for future designation to full park system status, pending sea claim settlements.
- 1653 **Gyre** - An oceanographic term referring to any large system of rotating ocean currents, particularly
1654 those involved with large wind movements.
- 1655 **Haida eddies** – Large anti-cyclonic vortices (waters spiraling outward clock-wise from a warmer, less
1656 saline center) that form off the west coast of Haida Gwaii and transport warmer, nutrient and plankton-
1657 rich coastal water out into the north Pacific Ocean.
- 1658 **Haida Gwaii Marine Stewardship Group** – A group of community and conservation organizations,
1659 individuals, and government agencies working collaboratively to promote the survival of northern
1660 abalone and other marine species at risk around Haida Gwaii (formerly called the Haida Gwaii Abalone
1661 Stewards).
- 1662 **Haida Marine Work Group** – Established by CHN in 2006 to identify Haida priorities for development of
1663 a Haida Gwaii Marine Use Plan, the Work Group includes representatives of the CHN, Hereditary Chiefs,
1664 Old Massett Village Council, Skidegate Band Council, and members of the Haida public.
- 1665 **Heli-drop sites** – Colloquial term for ‘helicopter log drop sites’. Areas where logs are released to the
1666 marine environment from the air.
- 1667 **International Union for Conservation of Nature (IUCN)** – A global environmental organization providing
1668 a neutral forum for governments, non-governmental organizations, scientists, business and local
1669 communities to find practical solutions to conservation and development challenges.

- 1670 **Intertidal area** – the area above water at low tide and under water at high tide. Also called the littoral
1671 zone.
- 1672 **Marine Advisory Committee** - A group of individuals with expertise and interest in various marine
1673 resources and issues brought together to provide advice to the CHN and BC on the development of the
1674 Haida Gwaii Marine Use Plan. Members of the Marine Advisory Committee are not representative of
1675 specific interest groups; rather they were selected based on their collective knowledge and experience.
- 1676 **Marine ecosections** – Marine ecosections are part of the hierarchical ecological mapping system called
1677 the *British Columbia Marine Ecological Classification* (BCMEC). Ecosections are defined according to
1678 physical, oceanographic and biological characteristics. There are four ecosections in the waters around
1679 Haida Gwaii: Dixon Entrance, Hecate Strait, Queen Charlotte Sound, and Continental Slope.
- 1680 **Marine protected area** - A clearly defined geographic space, recognized, dedicated and managed
1681 through legal or other effective means, to achieve the long-term conservation of nature with associated
1682 ecosystem services and cultural values. Conservation is the primary objective, but other values could be
1683 managed for (e.g., cultural, recreational).
- 1684 **Marine protected area network** – A collection of individual marine protected areas operating
1685 cooperatively and synergistically, at various spatial scales, and with a range of protection levels that are
1686 designed to meet objectives that a single reserve cannot achieve.
- 1687 **Marine renewable energy** – The use of marine renewable resources to generate energy, such as tidal,
1688 wind and wave power.
- 1689 **Marine Stewardship Council** – A global program that develops standard for sustainable fishing and
1690 seafood traceability that inform third-party certification of wild fisheries within administrative
1691 boundaries (e.g., Pacific Canada/British Columbia).
- 1692 **Marxan**– Marxan is conservation planning software that is used to inform spatial planning in areas of
1693 multiple uses and values.
- 1694 **Northern Shelf Bioregion** – one of five marine ecoregions in Pacific Canada identified by DFO based on
1695 geological, physical, oceanographic and biological criteria. The overall MaPP Planning Area is defined by
1696 the boundaries of the Northern Shelf Ecoregion.
- 1697 **Offshore waters** - A term for those waters that are beyond inland water limits and have the technical
1698 classification of oceans.
- 1699 **Pacific Integrated Commercial Fisheries Initiative (PICFI)** – A DFO-led initiative to reform fisheries
1700 management and promote greater First Nation access to commercial fishing opportunities on the Pacific
1701 Coast
- 1702 **Performance indicator** – a measure of the success of a particular action. In the context of the Haida
1703 Gwaii Marine Use Plan, performance indicators are compared to baseline measures to evaluate changes
1704 in state of ecological and human well-being values or stressors on those values.

- 1705 **Protection Management Zone (PMZ)** – Allocates space primarily for conservation purposes or
1706 objectives, and may serve as a basis for protecting localized conservation values. Furthermore, these
1707 areas may be identified or recommended in the context of a robust legislated network of marine
1708 protected areas under the applicable provincial or federal legislation.
- 1709 **Rapid Appraisal for Fisheries (RapFISH)** - A multidisciplinary rapid appraisal technique developed by the
1710 University of BC to evaluate the sustainability of fisheries.
- 1711 **Recreational fishery service provider** - A person or business engaged in providing services for the
1712 primary purpose of recreational fishing (such as a fishing lodge) and/or carrying passengers on a charter
1713 vessel whenever valuable consideration passes directly or indirectly to the person or business.
- 1714 **Rockfish Conservation Area (RCA)** – Areas established under the *Fisheries Act* to conserve inshore
1715 rockfish species.
- 1716 **Shellfish aquaculture** - the cultivation and harvesting (farming) of aquatic invertebrates and marine
1717 plants.
- 1718 **Special Management Zones (SMZ)** – Allocates space for high priority and/or high potential sustainable
1719 marine uses and activities including economic development and/or cultural uses and activities that
1720 require specific environmental conditions or locations. To avoid temporal or spatial conflicts and
1721 competition with certain other uses and activities, special management prescriptions are applied in
1722 addition to the General Management Direction (i.e., general objectives and strategies).
- 1723 **Species at Risk Act (SARA)** - Federal *Species At Risk Act (S.C. 2002, c. 29)* to prevent wildlife species from
1724 becoming extinct and to secure the necessary actions for their recovery. The Act provides for the legal
1725 protection of wildlife species and the conservation of biodiversity.
- 1726 **Species of concern** – Species that are not formally listed through provincial, national or international
1727 processes as being ‘at-risk’ but that are of conservation concern due to observed declining trends, local
1728 scarcity, cultural, social or economic value, or Haida and/or locally recognized need for action.
- 1729 **Sub-tidal zone** – Area submerged most of the time but exposed briefly during extreme low tides.
- 1730 **Yahguudang, Yakguudang** – Haida words meaning ‘respect’; see description in section 3.1 Haida Ethics
1731 and Values.
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1900 **APPENDICES**

1901 **Appendix 1. Objectives and Strategies Outside of Provincial Jurisdiction**

1902 Although the Province of BC has a broad interest in ocean resources, coastal and marine management
1903 and related policies (including marine fisheries and seafood industry development), it does not have the
1904 legislative responsibility, jurisdiction and/or mandate to implement or pursue the full suite of objectives
1905 and strategies listed in this document. While there is an overall desire to see an ecosystem based
1906 approach to marine resource management that includes both stewardship of the marine resources as
1907 well as sustainable human use, it is important to clarify the limitations in which the Province can
1908 operate.

1909 For strategies that are beyond the Province's jurisdiction and mandate, there are other mechanisms and
1910 processes that can be utilized to implement them. For example, the Government of Canada-Province of
1911 BC-CHN reconciliation process could be utilized to engage in key priority areas. Similarly, the PNCIMA
1912 process is a trilateral commitment to Ecosystem Based Management at a high strategic level. Many of
1913 the objectives and strategies outlined in the draft PNCIMA plan can help facilitate moving strategies in
1914 the Haida Gwaii Marine Plan forward. Several existing and emerging policies also demonstrate positive
1915 linkages to specific objectives and strategies listed below (including, but not limited to: DFO's
1916 Sustainable Fisheries Framework (including management impacts on benthic habitat policy and new
1917 fisheries for forage fish), the Wild Salmon Policy, and a Rockfish Inshore Conservation Strategy).

1918 Furthermore, there are a number of current policies and programs that enable the CHN to work
1919 collaboratively with the federal government at both policy and operational levels. This includes
1920 agreements under DFO's Aboriginal Fisheries Strategy (AFS), Pacific Integrated Commercial Fisheries
1921 Strategy (PICFS) and Aboriginal Aquatic Resource and Oceans Management program. The AFS fisheries
1922 agreement establishes a fisheries discussion and joint management process that involves DFO and the
1923 CHN at a negotiating level, a Cooperative Management Group to address policy and planning, and
1924 technical committees for salmon, shellfish, groundfish and herring. Topics discussed by these
1925 management and technical committees include fisheries economic access, community fisheries models,
1926 joint management, monitoring and enforcement. Species and fisheries of particular concern or interest
1927 include Northern Abalone, Red Sea Urchin, Geoduck, Pacific Herring, Red Giant Sea Cucumber, Razor
1928 Clams, Dungeness Crab, Pacific Halibut, Sablefish and the recreational fisheries.

1929 The CHN is also engaged in a number of cooperative management programs and processes. The CHN
1930 Fisheries Program has led an Abalone Stewardship Program since 2000 (with support from Environment
1931 Canada's Habitat Stewardship Program) aimed at rebuilding Haida Gwaii abalone stocks and monitoring
1932 recovery of killer whales. The Gwaii Haanas National Marine Conservation Area Reserve was established
1933 in 2010, and the CHN and the Government of Canada (Parks Canada and Fisheries and Oceans Canada)
1934 are now working cooperatively to manage the Gwaii Haanas marine area (also designated as a Haida
1935 Heritage Site). At the SGaan Kinghlas-Bowie Seamount, the CHN and DFO are also working to draft a
1936 management plan for the MPA. These CHN-federal programs and processes are opportunities to

1937 implement many of the objectives outlined below that the provincial government is currently unable to
 1938 endorse.

1939 The following tables list objectives and strategies that are outside the jurisdiction and/or mandate of the
 1940 Province of BC but are consistent with the current activities and interests of the CHN.

Table 6-1App. Governance & Integrated Management
Issue 1: Management of marine areas around Haida Gwaii
Objective 1.2 Improve existing and establish new and effective fisheries management relationships.
Strategy 1.2E. Establish cooperative management arrangements for existing and emerging fisheries.
Issue 2: Increased need for effective and coordinated compliance and enforcement
Objective 2.2 Work to secure sufficient resources and capacity to implement the Haida Gwaii Marine Plan, including monitoring of compliance related to fishing throughout Haida Gwaii.
Strategy 2.2C. Ensure sufficient enforcement capacity to the Council of the Haida Nation to ensure monitoring and compliance with Council of the Haida Nation traditional fishing regulations.
Strategy 2.2D. Ensure sufficient enforcement capacity to ensure monitoring and compliance with commercial and recreational fishing regulations.
Strategy 2.2E. Support enforcement activities and application of penalties for non-compliance in all fisheries including commercial, recreational and traditional.
Issue 3: Increased need for coordinated marine safety and response capacity
Objective 3.1 Maintain sufficient marine safety and response capacity.
Strategy 3.1A. Ensure sufficient capacity for search and rescue operations. <i>Examples – Canadian Coast Guard, Coast Guard Auxiliary, Parks Canada/Gwaii Haanas, Haida Fisheries Program, DFO, and others</i>

1941

Table 6-3App. Ecological Values and Significant Features
Issue 3: Threats to species of concern
Objective 3.1 Protect, recover and monitor species of concern.
Strategy 3.1F. Partner with others to protect wild salmon populations and their habitat, including effective implementation of the Wild Salmon Policy with emphasis on the marine area.
Strategy 3.1G. Assess recovery potential for spider crab in Skidegate Inlet. <i>Example – King crab (Decapoda, Lithodidae- locally known as spider crab) in Skidegate Inlet</i>
Strategy 3.1H. Develop a recovery plan for Haida Gwaii herring that includes harvest policies to ensure a sustainable fishery. <ul style="list-style-type: none"> <i>Example – Maintain abundance, genetic diversity, and age structure of Haida Gwaii herring populations; assess and protect unique herring populations like those in Skidegate Inlet and Masset Inlet; review and revise the policy for rebuilding herring stocks and reopening fisheries that have been closed.</i>
Strategy 3.1I. Continue and enhance the effective implementation of the Rockfish Conservation Strategy. <i>Examples –Review targets for protection (20% of inshore rockfish habitat) and implement new RCAs as necessary.</i>

1942

Table 6-3App. Ecological Values and Significant Features
Issue 4: Impacts of invasive species
Objective 4.1 Minimize introduction and impacts of invasive species.
Strategy 4.1E. Review effectiveness of current regulations and guidelines for waste and ballast water disposal or other potential transfer mechanisms (i.e. ship hulls, cargo, boat trailers) and amend as necessary.

1943

Table 6-4App. Ecological Issues Related to the Fisheries Economy and Fishing
Issue 1: Ecological impacts of commercial fishing
Objective 1.1 Minimize negative ecological impacts of commercial fishing activities.
Strategy 1.1A. Identify, manage and restrict commercial fishing activities in ecologically and culturally sensitive areas and specific areas of concern <i>Examples – Critical habitat such as spawning and rearing grounds, sensitive habitat such as coldwater corals and sponges, impact of commercial crab fleet on small isolated stocks (e.g. Security Inlet, Kootenay Inlet)</i>
Strategy 1.1B. Document extent and monitor impacts of fishing activities. <i>Examples – habitat impacts from bottom contact fisheries</i>
Objective 1.2 Promote ecologically, culturally and socially sustainable commercial fishing activities.
Strategy 1.2C. Periodically evaluate the sustainability of fisheries in the Haida Gwaii Plan area. <i>Examples – Review DFO’s Sustainable Fisheries Framework, Marine Stewardship Council assessments and RapFISH or other assessments and tools; refine evaluation criteria; develop indicators for monitoring (e.g. species abundance trends, habitat quality, level of local participation in fisheries); re-evaluate at least every 5 years</i>
Strategy 1.2D. Develop and implement integrated and adaptive fisheries management and monitoring frameworks. <i>Examples –</i> <ul style="list-style-type: none"> • Monitor fisheries area closures or other management measures for success at meeting EBM objectives and make adjustments to management plans as appropriate • Research programs to inform management approaches • Adaptation strategies to account for large scale changes such as climate change, ocean acidification and pollution
Strategy 1.2E. Actively promote and implement fisheries enhancement and restoration programs.
Strategy 1.2F. Review and revise commercial fisheries management plans and practices to address identified conservation and sustainability concerns. <i>Examples – incorporation of ecosystem-based considerations in fishery management</i>
Strategy 1.2G. Rebuild Haida Gwaii herring stocks and promote sustainable herring fisheries. <i>Examples –</i> <ul style="list-style-type: none"> • Review and provide direction on DFO’s Forage Fish Policy and application of Parks Canada mandate of ecological integrity to Haida Gwaii herring • Establish fishery objectives that support ecosystem function and sustainable fisheries e.g. target biomass, age structure of population, successful traditional fisheries

<ul style="list-style-type: none"> • <i>Work towards increasing biomass over the long term using fisheries management or other tools</i> • <i>Review management framework and management strategies and explore new approaches e.g. harvest policy, controls on fishing effort, decision rules, population recovery times, alternative thresholds for commercial spawn-on-kelp and roe herring fisheries</i> • <i>Restrict access to kelp gathering as appropriate</i> • <i>Establish criteria for re- opening fisheries that have previously been closed</i>
<p>Strategy 1.2H. Limit the impacts of the existing bottom trawl fishery and evaluate and implement potential measures to address ecosystem impacts of the fishery.</p> <p><i>Examples –</i></p> <ul style="list-style-type: none"> • <i>Review and provide direction on DFO’s Benthic Habitat Policy</i> • <i>Identify areas that are important for specific life history stages of groundfish species (i.e. rearing, spawning areas)</i> • <i>Monitor habitat impacts where bottom contact fisheries occur</i> • <i>Evaluate recent changes to the fishery including restricting fishery to frequently fished areas (e.g. their existing “footprint”) and restricting bycatch of coral.</i> • <i>Promote new technologies that would reduce impact of trawl gear on benthic habitats (eg –trawl door design)</i> • <i>Prioritize hook and line fisheries over groundfish trawl due to greater habitat impacts of the latter</i>
<p>Strategy 1.2I. Promote sustainability of directed rockfish longline fisheries</p> <p><i>Examples –</i></p> <ul style="list-style-type: none"> • <i>Support implementation of the Rockfish Conservation Strategy</i> • <i>Monitor fishery impacts including trends in rockfish populations in areas open and closed to fishing</i>
<p>Strategy 1.2J. Improve sustainability of the Geoduck and Red Sea Urchin dive fisheries.</p> <p><i>Examples –</i></p> <ul style="list-style-type: none"> • <i>Assess the sustainability of the Geoduck fishery including consideration of impact of bottom disturbance and trends to harvest at increasing depth (used to harvest at 10-30 ft, now at 30-60 ft) on recruitment</i> • <i>Increased monitoring and enforcement</i> • <i>Spatial zoning or other management measures to support abalone recovery</i> • <i>Increased monitoring and enforcement of fishery such as on-board cameras</i>
<p>Objective 1.3 Apply precautionary approach or <i>Yahguudang</i> to new and emerging fisheries</p>
<p>Strategy 1.3A. Evaluate the potential impacts of new and emerging fisheries, providing for phased development as part of a precautionary approach to ensure fisheries are ecologically sustainable.</p> <p><i>Example – Assess the proposed sea cucumber fishery– e.g. consideration of protected areas and research areas, Haida allocation or licences, and increased monitoring and enforcement</i></p>
<p>Issue 2: Ecological impacts of recreational fisheries</p>
<p>Objective 2.1 Work to address conservation, cultural and sustainability concerns.</p>
<p>Strategy 2.1C. Close areas or restrict recreational fishing when conservation concerns are identified for specific areas, populations or species.</p> <p><i>Examples – Consider retention limits to protect Yakoun River Chinook salmon; Consider restrictions on recreational fishing for groundfish in Cartwright Sound</i></p>
<p>Strategy 2.1D. Identify and restrict recreational fishing activities that may impact ecologically and culturally sensitive areas.</p>

<p>Strategy 2.1E. Monitor recreational fishing area closures or restrictions to determine success at meeting objectives based on established criteria, and consider changes as appropriate.</p>
<p>Objective 2.2 Document extent and monitor impacts of recreational fishing activities.</p>
<p>Strategy 2.2B. Continue to monitor recreational fishing activities through existing creel survey programs and modify and/or expand programs as necessary.</p> <p><i>Examples – Continue to operate creel surveys for salmon and groundfish from Naden Harbour, Langara Island, Masset boat launch, Venture Banks, McIntyre Bay, Albion Fish Processing Plant, and Skidegate Inlet, and from North Beach area for Dungeness crab and razor clam; Consider expanding creel survey programs into Gwaii Haanas, and extending creel surveys to operate through the year as needed</i></p>
<p>Strategy 2.2C. Develop and initiate monitoring of species abundance trends and habitat quality at selected recreational fishing sites to ensure sustainable use and identify conservation concerns.</p> <p><i>Examples – Species abundance trends of rockfish, groundfish; sanitary shellfish closures and fecal coliform testing in proximity to communities and lodges</i></p>
<p>Strategy 2.2D. Review current recreational fishery monitoring systems and databases and improve as necessary.</p>
<p>Issue 3: Ecological impacts of traditional fishing, hunting and gathering</p>
<p>Objective 3.1 Address conservation concerns related to traditional fishing, hunting and gathering.</p>
<p>Strategy 3.1A. Support processes to review fisheries conservation concerns and depending on the circumstances consider management measures such as closing or restricting areas to traditional fishing, hunting and gathering.</p> <p><i>Examples – Adjustments to other fisheries, area closures, gear or time restrictions, catch limits</i></p>
<p>Strategy 3.1B. Monitor area closures for success at meeting objectives and consider changes as appropriate.</p>
<p>Objective 3.2 Document extent and monitor impacts of Haida traditional fishing, hunting and gathering.</p>
<p>Strategy 3.2A. Continue to monitor Haida traditional fisheries.</p> <p><i>Example – In-river and ocean fisheries</i></p>
<p>Strategy 3.2B. Evaluate existing and develop new monitoring programs for traditional fishing, hunting and gathering, with a focus on ensuring sustainable use.</p> <p><i>Examples – species abundance, habitat quality</i></p>

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Table 6-5App. Human Wellbeing
Issue 1: Loss of access to local foods
Objective 1.1 Ensure access for traditional use activities.
Strategy 1.1B. Support continuing and future Haida traditional use for economic purposes including the sale and trade of fish.
Issue 4: Lack of education and communication about Haida traditional use and stewardship, and Island values
Objective 4.2 Ensure commercial and recreational fishing practices are consistent with Haida traditional and Island values.
Strategy 4.2D. Review current commercial fishery practices and codes and work with existing fishing organizations to address concerns on Haida Gwaii.
Issue 5: Maintenance of marine infrastructure
Objective 5.1 Maintain sufficient marine access and infrastructure.
Strategy 5.1C. Recommend that federal agencies and others maintain and upgrade or renew marine infrastructure as necessary, locally and regionally. <i>Examples - boat launches, government and other wharfs, barge landing and mooring sites, float plane service; remove hazards for anchoring at partially de-activated moorage buoy locations; marine ways and grids for vessel repairs, shipyards</i>
Strategy 5.1D. Identify and report concerns to the federal agencies to ensure the maintenance of essential marine aids to navigation, including <i>manned lighthouses, communications infrastructure, buoys and lights.</i>

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Table 6-6App. Marine Pollution and Spills
Issue 1: Pollution in the marine environment
Objective 1.1 Minimize pollution and harmful noise resulting from human activities and infrastructure.
Strategy 1.1F. Assess existing and potential sources of, and trends in, marine pollution into Haida Gwaii waters and evaluate potential environmental impacts and risks.
Strategy 1.1G. Work to understand the impact of noise in the marine environment and identify and implement actions to minimize its impact.

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Table 7-1App. Marine Tourism
Issue 4: Capturing local economic benefits from marine tourism on Haida Gwaii.
Objective 4.1 Increase local economic benefits from marine tourism.
Strategy 4.1D. Recommend resource benefit agreements between the Haida Nation and recreational fishery service providers.
Strategy 4.1E. Work with transportation operators towards the goal of providing regular and affordable access to the islands. <i>Examples – airlines, BC Ferries</i>

Table 7-2App. SHELLFISH AQUACULTURE	
Issue 1: Opportunities for shellfish aquaculture development.	
Obj. 1.1	Assess opportunities for shellfish aquaculture and encourage development in suitable locations.
	Strategy 1.1B Work with relevant agencies to identify and support development of shellfish aquaculture in suitable areas through spatial planning and environmental assessment, including the determination and establishment of capacity limits as appropriate to guide management activities other than tenuring.

1948

Table 7-3App. Community-Based Fisheries Economy	
Issue 1: Declining local involvement in the fisheries economy.	
Objective 1.1	Increase community participation in fisheries management, harvesting and processing and marketing.
Strategy 1.1C.	Promote community-based commercial fisheries and community participation in fisheries management. <i>Examples – fisheries co-management and partnerships.</i>
Strategy 1.1D.	Investigate potential models and support the development of community-based fisheries. <i>Examples – community quota/licenses; mosquito (small boat) fleets; participation of local fishermen, local processing, license banks, and diversification for local license-holders; promote “active” as opposed to “armchair” fishermen (owner-operator provisions); Alaska Community Development Quotas; Territorial Use Rights; US Tribal fisheries; Haida Gwaii co-op system</i>
Strategy 1.1E.	Establish new community-based fisheries and increase the number of Haida Gwaii licenses and fisheries allocations. <i>Examples – Haida allocation in new and emerging fisheries (eg, sea cucumber); PICFI</i>
Issue 3: Capturing local economic benefits from fisheries on Haida Gwaii.	
Objective 3.1	Increase community participation in, and local economic benefits from, sustainable commercial fishing activities.
Strategy 3.1C.	Support expanded local commercial salmon fishing opportunities. <i>Examples – Troll fishery – Explore limiting factors for chinook fishery (allowable mortality to West Coast Vancouver Island stocks); support owner-operator provisions for licenses; explore possibility for ongoing winter chinook fishery; explore traceability programs for Haida Gwaii fish (e.g., “thisfish.ca”). Gill net fishery – Pocket fisheries for terminal chum and pinks; Increased monitoring of salmon returns; Review of target escapements for local salmon streams</i>
Strategy 3.1D.	Encourage local participation in Pacific Halibut and Sablefish fisheries. <i>Examples – Haida access through Pacific Integrated Commercial Fisheries Initiative (PICFI), support for local fishermen to develop business plans to access quota and licenses</i>
Strategy 3.1E.	Promote commercial k’aaw (herring spawn-on-kelp) fisheries, including Haida participation, for food and cultural purposes as the first priority after conservation, and commercial spawn on kelp fisheries second. <i>Examples – Manage commercial k’aaw fishery as a higher priority than roe herring fisheries due to inherent</i>

<i>sustainability of fishery and limited ability to change fishing areas.</i>
<p>Strategy 3.1F. Support and promote local participation in the Dungeness Crab fishery and work with federal agencies to minimize impacts of the commercial fishery on local community access and navigation.</p> <p><i>Examples – Assess impact of commercial fleet on local fishing areas and ensure continued local access to food (spatial zoning); effects on navigation from crab traps</i></p>
<p>Strategy 3.1G. Encourage local participation in dive fisheries.</p> <p><i>Examples – Red Sea Urchin, Geoduck, Giant Red Sea Cucumber</i></p>
<p>Strategy 3.1H. Encourage local participation in prawn fisheries.</p>
<p>Strategy 3.1I. Encourage local participation in, and local benefits from, Albacore Tuna troll fisheries.</p> <p><i>Example – Support fishing license regulations that facilitate access for local fishers to the Albacore Tuna troll fishery; value added products (e.g., smoked tuna); recreational fishing charters</i></p>
<p>Strategy 3.1J. Enable local access to new and emerging fisheries.</p> <p><i>Example – Pacific Sardine, Giant Red Sea Cucumber</i></p>
<p>Objective 3.2 Promote salmon enhancement projects on Haida Gwaii if appropriate.</p>
<p>Strategy 3.2A. Evaluate current projects, and support future salmon enhancement projects as appropriate.</p> <p><i>Example – Yakoun River (Marie Lake) Hatchery</i></p>
<p>Strategy 3.2B. Ensure sufficient training opportunities in salmon enhancement for Haida Gwaii residents.</p>

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1950

1951 **Appendix 2. MaPP Letter of Intent**

Doug Konkin
Deputy Minister
Ministry of Forests, Lands and Natural Resource Operations

Date: **NOV 25 2011**

Re: Letter of Intent to Collaborate on Coastal and Marine Planning in the Pacific North Coast

Further to our discussions regarding the recent decisions of Fisheries and Oceans Canada to reduce the scope and funding of its Pacific North Coast Integrated Marine Area (PNCIMA) planning initiative, this letter confirms the intent of the First Nation organizations represented below to collaborate with the Province of British Columbia, as represented by the Ministry of Forests, Lands and Natural Resource Operations on:

- a) preparation of coastal / marine plans for the Haida Gwaii, North Coast, Central Coast and Northern Vancouver Island "sub-regions"; and,
- b) preparation of a broader regional planning document that may serve, subject to the parties' individual involvement in the PNCIMA Initiative, as a basis for informing the ongoing PNCIMA initiative.

The nature of our collaboration is identified in Attachment 1 of this letter. If the Province is in support of this letter of intent please initial the pages of Attachment 1, sign in the signature block provided below, and return a copy of this letter to the following:

Sincerely
Art Sterritt, Executive Director
Coastal First Nations-Great Bear Initiative



November 17, 2011

As directed by:



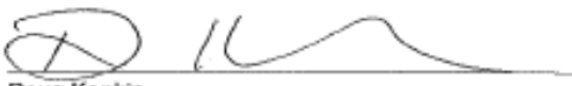
Council of the Haida Nation
Old Massett Village Council
Skidegate Band Council
Nuxalk Nation

Gitga'at First Nation-Hartley Bay
Metlakatla First Nation-Metlakatla
Kitasoo-Xaixais First Nation

Haisla First Nation
Heiltsuk Nation
Wuikinuxv Nation

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1953

			Date: <u>Nov. 18, 2011</u>
<p>G. Les Clayton, Executive Director North Coast First Nation Governance Committee North Coast-Skeena First Nations Stewardship Society As directed by:</p>			(11) 2 2 2011
Gitga'at First Nation-Hartley Bay	Metlakatla First Nation- Metlakatla	Kitselas First Nation	
Gitxaala First Nation-Kitkatla	Kitsumkalum First Nation- Kitsumkalum	Haisla First Nation	
			Date: <u>Nov 25 / 2011</u>
<p>Dallas Smith, President Nanwakolas Council As directed by:</p>			
Kwakiutl First Nation	Mamallikulla-Qwe'Qwa'Sot'Em First Nation	*Namgis First Nation	
Tlowitsis First Nation	Da'naxda'xw Awaetlatla First Nation	Gwa'sala-'Nakwaxda'xw First Nation	
Kwiahah First Nation	K'omoks First Nation		
			Date: <u>Nov 28/11</u>
<p>Doug Konkin Deputy Minister Province of British Columbia Ministry of Forests, Lands and Natural Resource Operations</p>			
2			

ATTACHMENT 1 to Letter of Intent

COASTAL FIRST NATIONS-BRITISH COLUMBIA COLLABORATIVE COASTAL AND MARINE PLANNING

1.0 PURPOSE

This document outlines the context and intended nature of collaborative coastal and marine planning to be undertaken by the Coastal First Nations-Great Bear Initiative, the North Coast-Skeena First Nations Stewardship Society, and the N̓n̓w̓aḡolas Council and the Province of British Columbia, as represented by the Ministry of Forests, Lands and Natural Resource Management, collectively ("the Parties") for the Pacific North Coast Region and for its four marine sub-regions as identified in section 2.2.

2.0 CONTEXT

- 2.1 In September 2011 Fisheries and Oceans Canada (DFO) announced changes to the process, structure and outputs that had been developed with the First Nations and the Province in accordance with signed collaborative governance and funding agreements for an integrated ocean plan for the Pacific North Coast Integrated Management Area (PNCIMA).
- 2.2 The Parties intend to undertake collaborative planning efforts for coastal and marine areas in four identified "sub-regions" of the Pacific North Coast, namely Haida Gwaii, North Coast, Central Coast and Northern Vancouver Island (planning areas to be confirmed).
- 2.3 The Parties intend to develop a broader regional planning document that may serve as a basis for informing the ongoing PNCIMA planning process. The Parties acknowledge that not all of the Parties may be involved in the ongoing PNCIMA planning process.
- 2.4 The Parties intend to enter into agreements to jointly manage external funds that may be available to develop coastal and marine sub-regional plans, and the broader regional planning document.
- 2.5 Notwithstanding and without prejudice to diverging viewpoints regarding ownership and control over coastal and marine lands and resources, the Parties intend to undertake coastal and marine planning for marine ecosystems and human well-being.

- 2.6 For the purpose of collaborative planning, the Parties intend to work together, irrespective of jurisdiction, treaty, rights and title issues, in the interests of arriving at the best decisions regarding the planning and management of coastal and marine ecosystems and activities.
- 2.7 Neither this document, nor any acts performed in connection with it, are to be used, construed or relied on by anyone as evidence, acceptance or admission of the existence, nature, scope or content of any Treaty or Aboriginal Rights or Title and Crown Rights or Title; and,
- 2.8 This Letter of Intent, and the implementation thereof, is to be informed by the following: Coastal First Nations Reconciliation Protocol (2010), Kunst'aa Guu – Kunst'aayah Reconciliation Protocol (2009), the Nanwakolas / British Columbia Framework Agreement (2009) & the Nanwakolas Reconciliation Protocol (2011).

3.0 COLLABORATION PRINCIPLES

3.1 The Parties intend to:

- a) integrate collaborative marine planning with the protocols and agreements identified in section 2.8 (above);
- b) collaborate on all planning products in terms of their development, review and future implementation, for both the sub-regional plans and the broader regional planning document; and,
- c) share information relevant to the planning process and outputs, where appropriate.

3.2 The Parties will respect each others' decision making structures and authorities, and intend to extent possible, make joint recommendations to their respective executive/leadership.

3.3 Where areas of disagreement exist, the Parties intend to seek appropriate conflict resolution processes or agree to disagree.

4.0 STRUCTURES

The parties intend to establish the following joint management structures to govern and manage the Parties' collaborative marine planning efforts.

A. Executive Committee¹

- The Executive Committee will be comprised of a senior representative(s) from the Province and senior representatives from each of the Coastal First Nations-Great Bear Initiative, North Coast Skeena First Nations Stewardship Society and the N̄nwaḡolas Council.
- The role of the Executive Committee is to exchange information and resolve strategic issues as necessary.
- Executive Committee members will either be Provincial ministers or deputy/assistant deputy ministers and chiefs, or executive level representatives of the Coastal First Nations-Great Bear Initiative, North Coast Skeena First Nations Stewardship Society and the N̄nwaḡolas Council.
- If any of the Parties continue to engage in the PNCIMA planning process, then the Executive Committee representatives of those Parties will be responsible for liaising with federal ministers and/or senior officials related to the PNCIMA planning process.
- The Executive Committee will meet when required.

B. Marine Working Group²

- The Marine Working Group will be comprised of a senior representative from the Province and one representative from each of the Coastal First Nations-Great Bear Initiative, North Coast Skeena First Nations Stewardship Society and the N̄nwaḡolas Council.
- The role of the Marine Working Group is to oversee and resolve issues related to joint planning work.
- Marine Working Group members will be either Provincial directors or senior staff and senior staff or appointees of the boards of the Coastal First Nations-Great Bear Initiative, North Coast Skeena First Nations Stewardship Society and the N̄nwaḡolas Council.

¹ Consistent with Coastal First Nations Reconciliation Protocol (2010), Kunst'aa Guu – Kunst'asyah Reconciliation Protocol (2009), the N̄nwaḡolas / British Columbia Framework Agreement (2009) & the N̄nwaḡolas Reconciliation Protocol (2011).

² Consistent with working groups in Reconciliation Protocols and Framework Agreements.

- If any of the Parties continue to engage in the PNCIMA Initiative, then the Marine Working Group representatives of those Parties are responsible for representing the Province and the Coastal First Nations-Great Bear Initiative, North Coast Skeena First Nations Stewardship Society and the N̄nwaḡolas Council on the existing PNCIMA Steering Committee, or similar PNCIMA oversight group. The Marine Working Group will meet at a minimum of once every two months.

C. Sub-Regional Technical Teams

- A sub-regional Technical Teams will be created for each of the four sub-regions set out in 2.2 and be comprised of technical staff from the Province's ministries and the Coastal First Nations-Great Bear Initiative, North Coast Skeena First Nations Stewardship Society and the N̄nwaḡolas Council.
- The role of the four sub-regional Technical Teams will be to develop individual sub-regional plans and participate in the review and comment of a broader regional plan and any PNCIMA plan products.

D. A Marine Coordination Team

- A Marine Coordination Team will be created and comprised of up to four senior technical staff; two senior technical staff from the Province and two from the Coastal First Nations-Great Bear Initiative, North Coast Skeena First Nations Stewardship Society and the N̄nwaḡolas Council collectively.
- The role of the Marine Coordination Team is to promote consistency in the work of the four sub-regional teams, manage the integration of sub-regional plans, manage the overall budget and work plan for sub-regional and regional collaboration, direct contracted staff on associated tasks, ensure coordinated input to the PNCIMA planning process, and identify issues for Marine Working Group resolution.

5.0 FUNDING ARRANGEMENTS

- 5.1 The Parties intend to work with external funders to modify the original, existing PNCIMA funding agreement and work plan to reflect this letter of intent.
- 5.2 The intent of the revised funding agreement and work plan is to continue to provide for common administrative support, technical and scientific support, stakeholder support and

public communications programs for sub-regional and regional planning and for PNCIMA engagement.

6.0 STAKEHOLDER AND PUBLIC ENGAGEMENT

6.1 The Parties intend to undertake stakeholder and public engagement with respect to sub-regional coastal and marine planning.

6.2 Public and stakeholder engagement will:

- a) be based on the principles of openness, transparency, inclusiveness, responsiveness, and informed input; and,
- b) may include tools such as advisory committees, open houses, bilateral sessions, and a central website.

7.0 SCIENCE AND TECHNICAL INPUT

7.1 The Parties intend to establish an independent marine science and technical committee.

7.2 The role of the science and technical committee would be to provide advice, upon request, on sub-regional, regional and PNCIMA reports, studies, and draft products.

8.0 ANTICIPATED KEY OUTPUTS

8.1 Key outputs of the collaborative planning process could include:

- a) Sub-regional coastal and marine plans for Haida Gwaii, North Coast, Central Coast and Northern Vancouver Island, including recommended marine protection areas and implementation strategies;
- b) Recommendations with respect to endorsing some or all aspects of the sub-regional coastal and marine plans;
- c) The Parties' endorsement of some or all aspects of the sub-regional coastal and marine plans;
- d) A broader, regional marine planning document that may be used to inform the ongoing PNCIMA process; and,
- e) Coastal and Marine Plan Implementation Agreements which would include the identification of adequate implementation funding mechanisms.

This document and the statements within have not been formally reviewed or approved by the organization(s) representing the Province of British Columbia and/or the Council of the Haida Nation. They are presented for discussion purposes only, and are subject to change upon formal review and revision.

1962 **Appendix 3. Summary of Haida, public and stakeholder engagement**

1963 Placeholder once public review and stakeholder meetings completed.

1964 **Appendix 4. Spatial Data Sources for Haida Gwaii Marine Planning**

- 1965 British Columbia Marine Conservation Analysis Project Team. 2011. Marine Atlas of Pacific Canada: A
1966 Product of the British Columbia Marine Conservation Analysis. Available at www.bcmca.ca.
- 1967 Clarke, C.L., and Jamieson, G.S. 2006. Identification of ecologically and biologically significant areas in
1968 the Pacific North Coast Integrated Management Area: Phase II – Final Report. Canadian
1969 Technical Report of Fisheries and Aquatic Sciences 2686: v + 25 p.
- 1970 Clarke, C.L., and Jamieson, G.S. 2006. Identification of ecologically and biologically significant areas in
1971 the Pacific North Coast Integrated Management Area: Phase I – Identification of important
1972 areas. Canadian Technical Report of Fisheries and Aquatic Sciences 2678: vi + 89 p.
- 1973 Day J., Dudley N., Hockings M., Holmes G., Laffoley D., Stolton S. & S. Wells. 2012. Guidelines for
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2013 **Appendix 5. Species at Risk Listed by Federal and Provincial Agencies**

2014 The table below lists species at risk in the Plan area (SARA, COSEWIC, BC MOE) as of January 29 2014.

2015 Definitions of acronyms and terms follow the table. Species are listed here that breed or regularly occur

2016 in the area, as well as species that likely migrate through Haida Gwaii waters, such as salmon and

2017 Eulachon.

Species	Population	COSEWIC Status	SARA Schedule	SARA Status	BC Prov. Status
Mammals					
Blue Whale	Pacific	Endangered	1	Endangered	Red
Fin Whale	Pacific	Threatened	1	Threatened	Red
Grey Whale	NE Pacific	Special Concern	1	Special Concern	Blue
Harbour Porpoise	Pacific	Special Concern	1	Special Concern	Blue
Humpback Whale	N Pacific	Special Concern	1	Threatened	Blue
Killer Whale, offshore	NE Pacific	Threatened	1	Threatened	Red
Killer Whale, resident	NE Pacific	Threatened	1	Threatened	Red
Killer Whale, transient	NE Pacific	Threatened	1	Threatened	Red
Nth Pacific Right Whale	N Pacific	Endangered	1	Endangered	Red
Northern Fur Seal		Threatened	None	No Status	Red
Sea Otter		Special Concern	1	Special Concern	Blue
Sei Whale		Endangered	1	Endangered	Red
Steller Sea Lion		Special Concern	1	Special Concern	Blue
Birds					
Ancient Murrelet		Special Concern	1	Special Concern	Blue
Bald Eagle		Not at Risk			Yellow
Black-footed Albatross	Pacific	Special Concern	1	Special Concern	Blue
Brandt's Cormorant					Red
Buller's Shearwater					Blue
Caspian Tern		Not at Risk			Blue
Cassin's Auklet		Candidate			Blue
Common Murre					Red
Double-crested Cormorant		Not at Risk			Blue
Flesh-footed Shearwater					Blue
Horned Puffin					Red
Long-tailed Duck					Blue
Marbled Murrelet		Threatened	1	Threatened	Blue
Northern Fulmar					Red
Pelagic Cormorant (ssp <i>pelagicus</i>)					Red
Peregrine Falcon (ssp <i>pealei</i>)		Special Concern	1	Special Concern	Blue
Pink-footed Shearwater	BC	Threatened	1	Threatened	
Red-necked Phalarope		Candidate			Blue
Short-tailed Albatross	BC	Threatened	1	Threatened	Red
Surf Scoter					Blue

This document and the statements within have not been formally reviewed or approved by the organization(s) representing the Province of British Columbia and/or the Council of the Haida Nation. They are presented for discussion purposes only, and are subject to change upon formal review and revision.

Species	Population	COSEWIC Status	SARA Schedule	SARA Status	BC Prov. Status
Tufted Puffin					Blue
Western Grebe		Candidate			Red
Yellow-billed Loon		Not at Risk			Blue
Fish					
Basking Shark	Pacific	Endangered	1	Endangered	
Bluntnose Sixgill Shark	Pacific	Special Concern	1	Special Concern	
Boccaccio Rockfish		Endangered		No Status	
Canary Rockfish		Threatened	None	No Status	
Chinook Salmon	Okanagan	Threatened	None	No Status	Yellow
Coho Salmon	Interior Fraser	Endangered	None	No Status	Yellow
Cutthroat Trout (<i>clarkii</i>)					Blue
Darkblotched Rockfish		Special Concern	None	No Status	
Dolly Varden					Blue
Eulachon	Central Pacific Coast	Endangered	None	No Status	Blue
Eulachon	Nass/Skeena Rivers	Special Concern	None	No Status	Blue
Green sturgeon		Special Concern	1	Special Concern	Red
Longspine Thornyhead		Special Concern	1	Special Concern	
North Pacific Spiny Dogfish		Special Concern	None	No Status	
Pacific Sardine		Not at Risk	3	Special Concern	
Quillback Rockfish		Threatened	None	No Status	
Rougheye Rockfish Type I		Special Concern	1	Special Concern	
Rougheye Rockfish Typell		Special Concern	1	Special Concern	
Sockeye Salmon	Cultus Lake	Endangered	None	No Status	Yellow
Sockeye Salmon	Sakinaw Lake	Endangered	None	No Status	Yellow
Tope (Soupfin Shark)	Pacific	Special Concern	1	Special Concern	
Yelloweye Rockfish	Outside waters	Special Concern	1	Special Concern	
Yellowmouth Rockfish		Threatened	None	No Status	
Reptiles					
Leatherback Turtle		Endangered	1	Endangered	Red
Invertebrates					
Northern Abalone		Threatened	1	Threatened	Red

2018
2019

2020 **Species at Risk Act Definitions (from SARA Public Registry – www.sararegistry.gc.ca)**

2021 *Species at Risk Act (SARA):* The Act is a key federal government commitment to prevent wildlife species from becoming extinct and secure the necessary actions for their recovery. It provides for the legal protection of wildlife species and the conservation of their biological diversity.

2024 *No Status:* Species not included on SARA schedule.

2025 **Committee on the Status of Endangered Wildlife in Canada Definitions (from COSEWIC's Assessment**
2026 **Process and Criteria, April 2010)**

- 2027 • *Committee on the Status of Endangered Wildlife in Canada (COSEWIC):* A federal committee of
2028 experts that assesses and designates wildlife species that are in some danger of disappearing
2029 from Canada.
- 2030 • *Species at risk:* Extirpated, endangered, threatened species, or a species of special concern.
2031 • *Endangered species:* A wildlife species that is facing imminent extirpation or extinction.
2032 • *Threatened species:* Wildlife species that is likely to become endangered if nothing is done to
2033 reverse the factors leading to its extirpation or extinction.
- 2034 • *Special concern:* A wildlife species that may become threatened or endangered because of a
2035 combination of biological characteristics and identified threats.
- 2036 • *Not at Risk:* A wildlife species that has been evaluated and found to be not at risk of extinction
2037 given the current circumstances.
- 2038 • *Schedule 1:* The list of species under SARA that are formally classified as Extirpated, Endangered,
2039 Threatened, and Special Concern based on recommendations by COSEWIC.
- 2040 • *Schedule 2:* Species listed under the SARA that had once been designated as Endangered or
2041 Threatened and have yet to be re-assessed by COSEWIC using revised criteria. Once these
2042 species have been re-assessed, they may be considered for inclusion in Schedule 1.
- 2043 • *Schedule 3:* Species listed under the SARA that had once been designated as Special Concern,
2044 and have yet to be re-assessed by COSEWIC using revised criteria. Once these species have been
2045 re-assessed, they may be considered for inclusion in Schedule 1.

2046 **BC Provincial Definitions (from BC Ministry of Environment – [http://www.env.gov.bc.ca/atrisk/red-](http://www.env.gov.bc.ca/atrisk/red-blue.htm)**
2047 **[blue.htm](http://www.env.gov.bc.ca/atrisk/red-blue.htm))**

2048 *Red List:* A provincial designation that includes any ecological community, and indigenous species and
2049 subspecies considered to be of special concern (formerly vulnerable) in British Columbia.

2050 *Blue List:* A provincial designation that includes any ecological community, and indigenous species and
2051 subspecies that is extirpated, endangered, or threatened in British Columbia.

2052 *Yellow:* A provincial designation that includes species that are apparently secure and not at risk of
2053 extinction. Yellow-listed species may have red- or blue-listed subspecies.

2054

2055 **Appendix 6. Commercial Fisheries Sustainability Assessments**

2056 In an attempt to assess the social and ecological sustainability of the local fisheries around Haida Gwaii,
2057 a number of fisheries assessments were consulted and amalgamated into one local assessment scheme.
2058 In the context of this plan, this is relevant for seafood marketing and distribution and sustainable
2059 livelihoods. This qualitative review and analysis was combined with local knowledge to provide the
2060 HMWG and Haida Gwaii Marine Advisory Committee with a list of fisheries with sustainability
2061 concerns. These fisheries were then discussed at length with the HMWG and Marine Advisory
2062 Committee and a prioritized list of fisheries with greatest concern was created. Currently, commercial
2063 fisheries or species of particular concern in Haida Gwaii include: herring roe (seine and gillnet), rockfish
2064 longline, groundfish trawl, Geoduck and Red Sea Urchin.

2065 The four assessments utilized were: SeaChoice, Blue Ocean Institute, RAPFish, and Marine Stewardship
2066 Council Certification (MSC). Currently the only assessment that is recognized by the Province is the MSC
2067 Certification. These techniques assess a fishery using a number of criteria and determine a rating of
2068 sustainability. The methodology of each fishery assessment rating scheme is described below. The
2069 summaries of each assessment provide a non-technical overview of each assessment.

2070 ***A. SeaChoice Ranking*** [update section to reference DSF membership]

2071 <http://www.seachoice.org/>

2072 SeaChoice, defines sustainable seafood as fish or shellfish that are caught or farmed with consideration
2073 for the long-term viability of harvested populations and for the oceans' ecological balance as a whole.

2074 Seachoice uses a science based assessment methodology that was developed by the Monterey Bay
2075 Aquarium's Seafood Watch program.

2076 SeaChoice/Seafood Watch use five sustainability criteria, corresponding to these guiding principles, to
2077 evaluate capture fisheries for the purpose of developing a seafood recommendation. These criteria are:

- 2078 • Inherent vulnerability to fishing pressure
- 2079 • Status of wild stocks
- 2080 • Nature and extent of discarded bycatch
- 2081 • Effect of fishing practices on habitats and ecosystems
- 2082 • Effectiveness of the management regime

2083 The method uses set rules for decisions and each criterion includes:

- 2084 • Primary factors to evaluate and rank
- 2085 • Secondary factors to evaluate and rank
- 2086 • Evaluation guidelines to synthesize these factors
- 2087 • A resulting colour rank for that criterion

2088 Once a rank has been assigned to each criterion, an overall seafood recommendation is assigned, based
2089 on the ranks from each of the five criteria, as follows:

2090 A species receives an overall recommendation of “Best Choice” if:

2091 1. It has three or more green criteria and the remaining criteria are not red.

2092 A species receives a recommendation of “Some Concerns” if:

2093 1. Criteria “average” to yellow

2094 2. There are four green criteria and one red criterion

2095 3. Stock status and management criteria are both ranked yellow and the remaining criteria are not
2096 red

2097 A species receives a recommendation of “Avoid” if:

2098 1. It has a total of two or more red criteria

2099 2. It has one or more critical conservation concerns.

2100 *Best Choice (Green):* This species is currently fished/harvested sustainably and represents a best choice.
2101 Enjoy, while supporting responsible fishing and coastal livelihoods.

2102 *Some Concerns (Yellow):* Seafood that should be consumed infrequently, or when a green choice is not
2103 available. There are conservation concerns with the current populations or practices in this fishery.

2104 *Avoid (Red):* Do not purchase these fish for now. They come from sources that have a combination of
2105 problems-habitat damage, discard of unwanted species, poor management, low populations, can be
2106 easily harmed by fishing or may be listed by governments as Endangered.

2107

2108 **B. Blue Ocean Institute Ranking**

2109 <http://www.blueocean.org/seafood/seafood-guide>

2110 Blue Ocean originated a comprehensive seafood analysis and ranking methodology with our *Guide to*
2111 *Ocean Friendly Seafood*, an approach quickly adopted by other marine organizations. Our quantitative
2112 approach looks at a number of criteria, depending on whether the fish is wild-caught or farm-raised.

2113 For wild-caught fish, the core points that are considered are:

2114 1. **Life history**, including how fast the fish grows and how quickly they reproduce.

2115 2. **Abundance** compared to natural or un-fished levels.

2116 3. **Habitat quality and gear impacts** - does the catch method damage the habitat for fish that are
2117 left behind?

2118 4. **Management** - are there regulations in place that effectively protect the fish and their
2119 ecosystem?

2120 5. **Bycatch** - are other fish or wildlife accidentally caught when fishing for the target species?

2121

2122 For farmed fish, the core points considered are:

- 2123 1. **Inherent operational risks** - this section looks at the layout of the farming system—can waste
2124 and fish freely move from the farm to the surrounding environment?
2125 2. **Feed** examines the diet of the farmed fish, with a particular focus on the reliance of wild-caught
2126 seafoods to supply fishmeal and oil.
2127 3. **Pollution** - is the water being discharged from the farm enclosure treated to minimize impact to
2128 the surrounding habitat?
2129 4. **Risk** to other species considers whether the farmed species is able to escape and have a
2130 negative impact on the local environment (e.g. competing for food).
2131 5. **Ecological Effects** considers the ecological sensitivity of the area surrounding the fish farm.

2132 For each seafood species, scientific and governmental publications are examined to obtain the
2133 necessary information to answer the five core points. Each core point has 8 additional questions, or
2134 “points of adjustment,” that help refine the ranking and generate a report. All reports are peer-
2135 reviewed for scientific accuracy and then displayed online for public viewing. For a full list of the point
2136 values that can be assigned and a description of each point of adjustment, please see the Wild Caught
2137 Fish and Farmed Fish documents.

2138 Point values are averaged to determine the final ranking for each seafood species. Scores range from 0
2139 to 4, which are then used to generate a “fish color”.

2140 Final Score:

2141 2.60 - 4.00- Green

2142 2.20 - 2.59-Light Green

2143 1.80 - 2.19-Yellow

2144 1.40 - 1.79-Orange

2145 0.00 - 1.39-Red

2146 **C. RapFish**

2147 <http://www.rapfish.org/>

2148 Rapfish is a simple, rapid-appraisal, semi-quantitative policy tool that evaluates fisheries sustainability
2149 along multiple performance modalities: e.g., ecological, technological, economic, social, ethical and
2150 institutional. The tool is mathematically robust, scalable, includes uncertainty, and provides a holistic
2151 account of specific fisheries, while also providing a platform to test hypotheses on coupled human and
2152 natural systems. In addition to sustainability, Rapfish is easily adaptable to varied cross-disciplinary
2153 human issues.

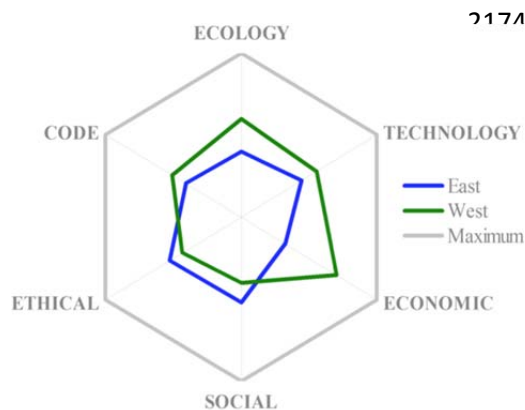
2154 Rapfish was invented in the late 1990s and has undergone several rounds of improvement, becoming
2155 quite widely adopted by the international community. In 2011 Rapfish was updated to better account

2156 for the human dimensions of fisheries. By comparing fisheries performance with stated goals or
2157 compliance in various separate evaluation fields simultaneously, Rapfish can provide a semi-quantitative
2158 substrate for narratives of policy and an accessible tool for conflict resolution. Moreover, it can help in
2159 conceptualizing fundamental, but typically implicit values, and the Rapfish research framework can
2160 inform policy decisions by making the values of diverse stakeholders explicit and part of the decision-
2161 making process.

2162 **How Rapfish works**

2163 Each modality is termed an “evaluation field” (e.g., ecological) and within it 5-9 indicators (“attributes”)
2164 are scored between zero and ten on how well they match the goal (a perfect match scores 10/10).
2165 Scoring is from experts (perhaps using a Delphi process), published work or models. For each attribute,
2166 upper and lower scores out of ten are assigned to reflect uncertainty (e.g., “score must be at least 4/10
2167 but not more than 6/10”). Using these scores, within each evaluation field, Rapfish uses a normatively
2168 constrained form of multi-dimensional scaling, results being expressed on a scale of zero to 100% (100%
2169 represents perfect compliance with the goal, which can be sustainability or compliance with a Code of
2170 Conduct). Computations for Rapfish have been programmed in “r”, available at www.rapfish.org. The
2171 users data may be submitted to the web site and the computations performed remotely with results
2172 including confidence limits and graphs sent back to the user.

2173 **Example results**



2184 each of the scores, but these values are available from the results so that differences may be tested
2185 statistically.

2186

2187

2188 **D. Marine Stewardship Council Certification**

2189 <http://www.msc.org>

2190 The Marine Stewardship Council (MSC) is an independent, international, non-profit organisation that has
2191 developed a science based set of environmental standards to certify sustainable fisheries. The ecolabel
2192 and fishery certification program works to promote sustainable fisheries by rewarding sustainable
2193 fishing practices and influencing the choices people make when buying seafood. The MSC program is
2194 open to all wild-capture fisheries, and promotes equal access for fisheries from the developing world.

2195 The MSC established its fishery sustainability standard collaboratively with fishers, seafood industry,
2196 scientists, academics, marine conservation organizations from around the world. The MSC standard has
2197 3 overarching principles that every fishery must prove that it meets:

2198 • **Principle 1: Sustainable fish stocks**

2199 The fishing activity must be at a level that is sustainable for the fish population. Any certified
2200 fishery must operate so that fishing can continue indefinitely and is not overexploiting the
2201 resources.

2202 • **Principle 2: Minimizing environmental impact**

2203 Fishing operations should be managed to maintain the structure, productivity, function and
2204 diversity of the ecosystem on which the fishery depends.

2205 • **Principle 3: Effective management**

2206 The fishery must meet all local, national and international laws and must have a management
2207 system in place to respond to changing circumstances and maintain sustainability.

2208 These three high level principles are applied to fisheries through performance indicators. Fisheries are
2209 scored against 31 performance indicators by independent third party experts. These indicators measure
2210 the impact of a fishery, not just on the stock itself, but also on key elements of the ecosystem. A passing
2211 score indicates the fishery does not compromise any of key components such as habitat, productivity
2212 and biodiversity. The fishery must score above the minimum level in all indicators to achieve
2213 certification. In some instances, when an indicator is scored only slightly above minimum levels,
2214 conditions are placed on the fishery. This then requires that a fishery develop a plan of action to raise its
2215 performance indicator to a higher level.

2216 The MSC itself does not assess fisheries but uses a 'third-party' certification program. Certificates are
2217 issued by "third party" certifiers who are independently accredited to be able to perform fisheries
2218 assessments and determine if they meet the MSC standard.

2219 Fisheries that want to get MSC certified employ an independent, accredited certifier to assess their
2220 fisheries against the MSC standard. Fisheries go through a pre-screening to prepare for a full
2221 assessment. If a fishery goes through a full assessment, the process becomes open to any stakeholder

2222 with an interest in the fishery. When assessing fisheries, certifiers use the MSC certification
2223 requirements that establish how to assess fisheries against the MSC standard:

- 2224 1. General requirements for all certifiers: Sets out the steps that accredited certifiers must take to
2225 assess a fishery against the MSC standard for sustainable fishing.
2226 2. Fishery certification requirement: Sets out how the MSC standard for sustainable fishing should
2227 be interpreted when assessing fisheries for MSC certification. These include the steps in the
2228 assessment process as well as the assessment tree used to score fisheries.

2229 When a fishery becomes certified it must complete annual audits to maintain the certification. This
2230 ensures there have been no changes in the sustainability of the fishery.

2231

2232

2233 **Appendix 7. MaPP Definitions of Marine Uses and Activities**

2234

2235 **Date: 26 February 2014, Version: 3.6**

2236 **Context**

2237 The MaPP 'Master List of Uses and Activities' is a comprehensive list, with associated descriptions of
 2238 marine uses and activities for the MaPP study area. The list is used for all MaPP outputs including the
 2239 compatibility matrix, recommended uses and activities table, and the vulnerability matrix. The list was
 2240 developed from discussions with the MCT, sub-regional co-leads, MPAC members, RMAC members,
 2241 technical planners, and the scientific coordinator from June 2012 to January 2014. These marine uses
 2242 and activities presently occur in the MaPP study area and/or are potential future uses. The descriptions
 2243 are not intended to define thresholds and/or acceptable intensity of use; thresholds/density and
 2244 intensity vary from place to place they will be determined in management prescriptions.

2245 Activities and uses outside of provincial regulatory authority are identified in a separate section of the
 2246 table. Harvest of marine uses by First Nations is considered a separate use, and not described in this
 2247 table. Please consult the sub-regional marine plans for more information on uses and activities.

2248

Category	Marine Use or Activity	Description
Aquaculture	Bottom Aquaculture Sites– Marine Plants, Shellfish, Other Invertebrates	Cultivation and harvesting of marine plants, shellfish and other invertebrates for commercial purposes. Culture activity takes place on the sea floor and/or between the high water mark and the low water mark in a natural or manufactured environment. Includes associated facilities and infrastructure such as accommodation, rock walls, fencing and anti-predator netting.
	Off-Bottom Aquaculture Sites – Marine Plants, Shellfish, Other invertebrates	Cultivation and harvesting of marine plants, shellfish and other invertebrates for commercial purposes. Culture activity takes place 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 facilities and infrastructure.
	Off-Bottom Aquaculture Sites – Finfish	Cultivation and harvesting of finfish for commercial purposes. Culture activity takes place 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.
Energy	Renewable Energy Generation	Energy generation from wave, wind, tidal and/or other renewable marine sources. Includes facilities and infrastructure such as generation structures fixed or anchored to the seabed or foreshore, accommodation, and industrial facilities such as maintenance buildings. Does not

Category	Marine Use or Activity	Description
		include transmission or distribution lines on land or in the sea, which fall under the definition of linear utilities.
Industry	Forestry Operations	Marine operations associated with deposition, sorting, and processing of harvested timber. Includes related facilities and infrastructure, log dumps, log sorts, heli-log drop sites, as well as physical structures such as anchor devices, fill, pilings, permanent ways or ramps and floating camps for accommodation.
	Mining Operations	Marine operations associated with extracting of minerals, including sand and gravel mined from foreshore, nearshore and offshore areas, as well as facilities and infrastructure. Does not include wharves or docks used for loading and transport of mined products from upland mining operations as these fall under Level 2 docks.
Infrastructure	Commercial and Recreational Anchorages	A natural sheltered area or harbour used for temporary and untenured public or commercial boat anchorage (Anchorage restrictions do not apply to commercial towboat reserves and provincially designated boat havens, nor do they apply to vessels in distress or other emergency situations).
	Float Homes	Structures built on a flotation system, which are used for permanent or seasonal residential habitation and are not intended for navigation or as a navigational craft. Does not include floating structures used for commercial or industrial purposes (e.g. accommodations for workers).
	Floating Lodges	Floating structures and facilities used for accommodation associated with commercial tourism purposes, including floating lodges or “mother ships” moored on the seabed. May include access to camps on adjacent upland. This does not include pocket cruisers or private commercial tourism vessels
	Level 1 Docks, Wharves & Facilities	Facilities designed to accommodate commercial, community, public or private marine use. Facilities generally do not include a concentration of marine services. Includes private and public moorage facilities, commercial and community boat ramps, docks associated with upland lodges and base camps, boat haul-outs, and associated structures such as boat lifts and anchor lines. Permanently affixed to foreshore or seabed.
	Level 2 Docks, Wharves & Facilities	Facilities designed to attract and accommodate commercial vessels or ships, or multiple vessels for commercial, industrial, community, institutional, or private marine uses. Includes docks, wharves, piers, ramps, breakwaters,

Category	Marine Use or Activity	Description
		and related structures in harbours, marinas and ferry terminals, and associated marine services (e.g., ways, repairs, food services, pump-out sites, fuel). Structures may be affixed to foreshore and seabed through pilings or floats, or involve foreshore fill. Includes commercial ports.
Recreation & Tourism	Commercial Recreation and Tourism	Non-extractive commercial recreation involving a paid service component such as crewed boats, guiding and interpretation, cultural tourism to interpret cultural heritage, nature-based adventure and ecotourism.
	Public Recreation and Tourism	Non-extractive, self-guided uses and activities include birding, boating, jet skiing, kayak staging and landing areas, motor boating, sailing, scuba diving, snorkelling, stand up paddle boarding, surfing, swimming, temporary anchorage, water skiing, whale watching, wildlife viewing, and windsurfing. Public recreation does not involve a paid service component.
Research	Research	Activities designed to establish or expand knowledge of the marine environment and undertaken by educational institutions, research institutions, surveyors, research companies or consultants. Also includes citizen science, non-profit activities, and locally based research and monitoring activities.
Utilities	Linear Utilities	Underwater lines and structures including but not limited to those for flow, transit, distribution or broadcast of water, electricity, and telecommunication services for public and/or private purposes. Generally on or under the seabed or anchored to the seabed, but may also be suspended in the water column. Includes associated rights of way. Includes associated infrastructure and rights of way.
	Point Source Utilities	Outfalls and discharge points including, but not limited to those for, sewage, wastewater, and stormwater for public, private, commercial and/or industrial purposes.
Marine Uses and Activities Outside Provincial Regulatory Authority		
Aquaculture	Aquaculture	The commercial cultivation and harvest of marine finfish, plants and shellfish.
Fisheries	Commercial Fisheries	The commercial (wild) fishery involves harvesting, a variety of marine species. A variety of gear-types and methods are used to harvest a variety of marine species in accordance with federal regulations, licenses and openings.
	Recreational Fisheries: Guided and Non-Guided	Recreational fisheries to provide food for personal use, as a leisure activity, or as a combination of these. Includes guided (service based) and non-guided fishing by local residents and by visiting anglers and boaters. Includes shellfish, finfish and

Category	Marine Use or Activity	Description
		other species for which a BC Tidal Waters Sport Fishing Licence is required.
Transportation & Navigation	Transportation	In accordance with federal regulations, marine transportation includes ferries, ship traffic, pocket cruise ships, log towing and the transportation of harvested timber. Marine traffic also includes commercial fishing vessels, recreational sail and power vessels and water taxis.
	Temporary Port Vessel Anchorage ¹	That portion of a harbour or area outside a harbour where commercial Cargo ships (including oil tankers) are permitted to anchor. Includes but is not limited to permanent anchor mooring. Navigation includes the authorization of cargo ships to temporarily anchor in navigable waterways.

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¹ Transport Canada and Pacific Pilotage Authority process

2251 **Appendix 8. Tools for enacting Marine Plan spatial and aspatial components**

2252 *> Placeholder for content (to be developed) <*