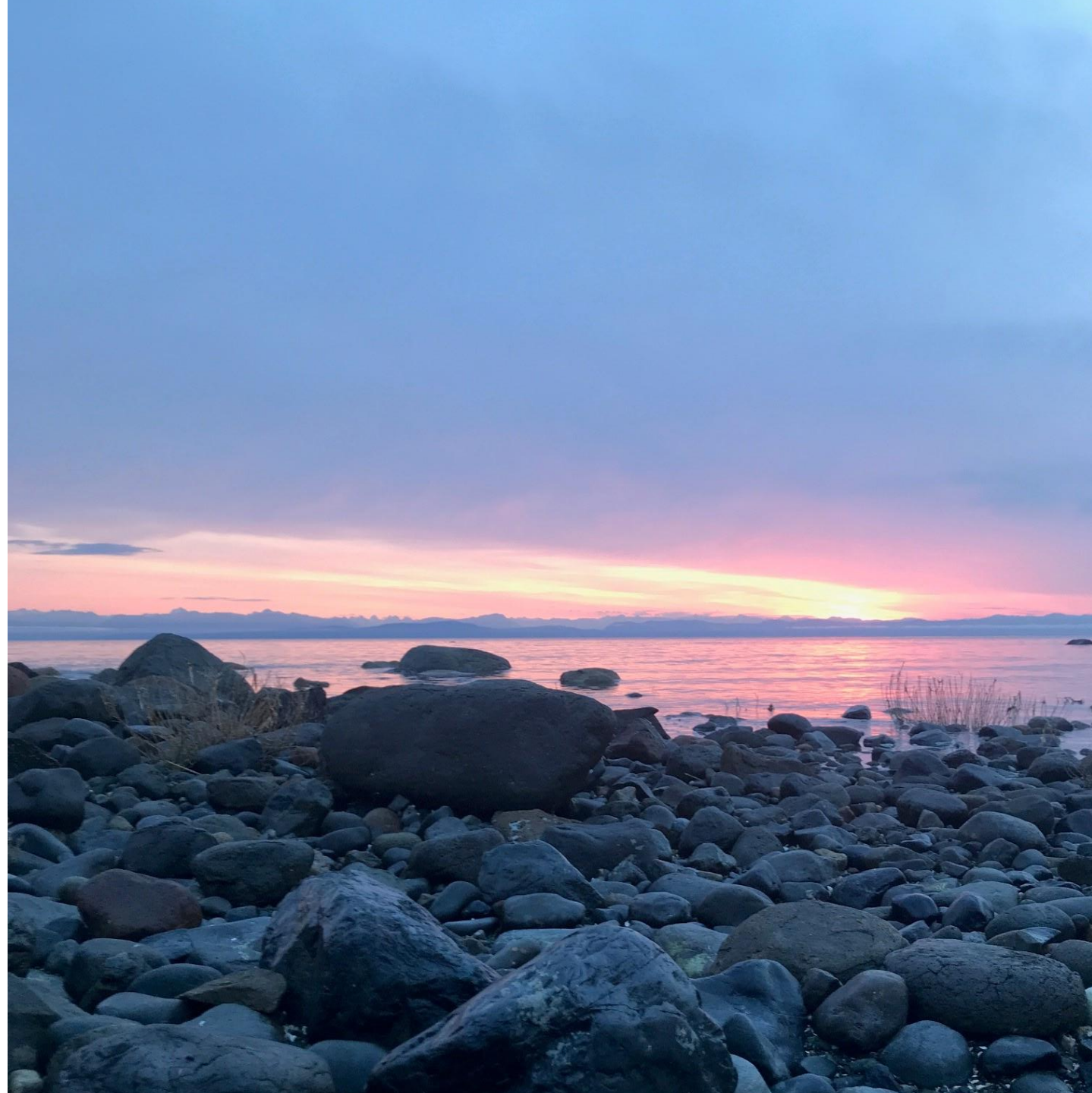




Toward Integrated Management in Baynes Sound: Study Highlights

Kim Dunn

26 November 2020





Overview

- Report purpose and components
- Methods
- Results
- Opportunities and challenges for integrated management
- Future research and next steps
- Questions



A comprehensive integrated and ecosystem-based approach to management in Baynes Sound would weave management efforts across spatial zones, species and habitat, time and activities.



Purpose of the report

Compare and analyze the existing management plans for the Baynes Sound/Lambert Channel marine ecosystem.

Assess the degree of integration among each of these management plans.

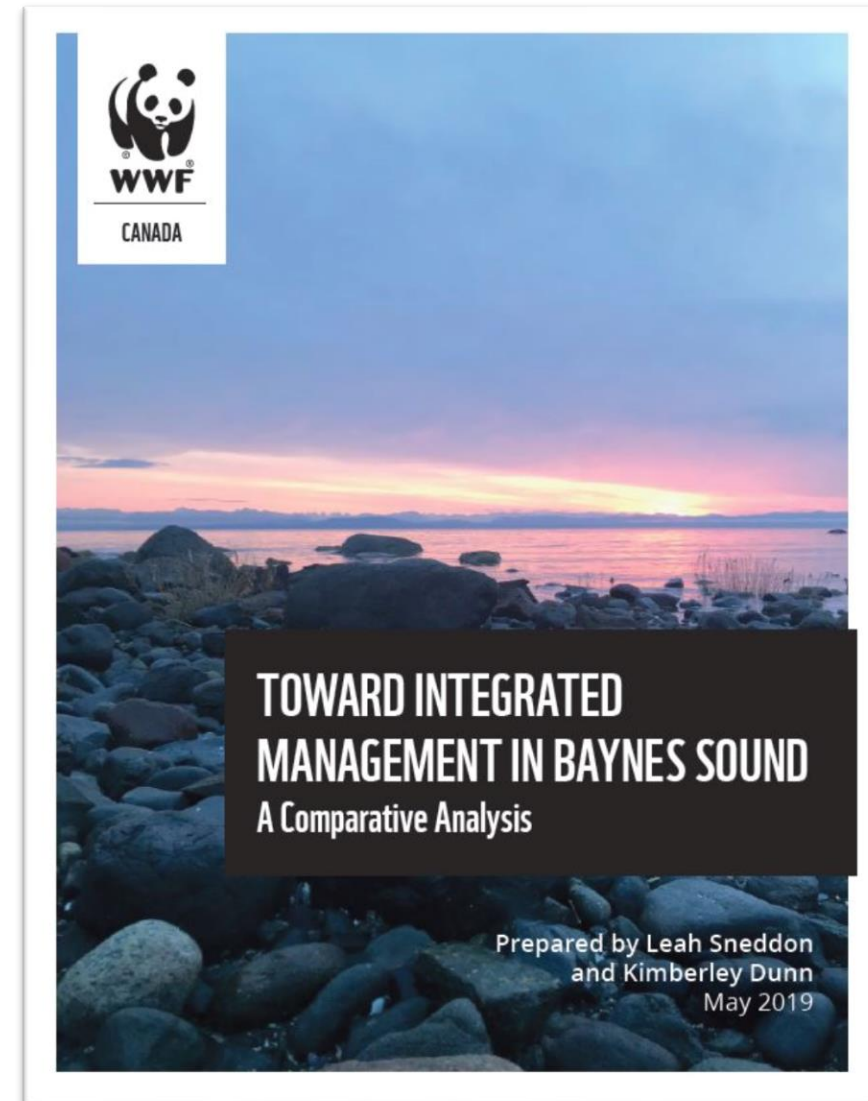
Identify opportunities and challenges relevant to the future progress of integrated ecosystem-based management.



Report components

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Methods – selecting management plans

- Marine ecosystem that comprises Baynes Sound/Lambert Channel
 - Including the intertidal and coastal environments (encompassing Denman and Hornby Islands), as well as connected watersheds (e.g. K'ómoks Estuary) and landward areas
- Management oriented, and containing objectives and strategies related to marine and coastal environments
- 29 plans total included in final analysis
 - See Table 2, page 7



Methods – conducting content analysis

- Selected plans manually coded
 - Relevant text organized by broad themes: spatial and temporal scales, human activity, single-species management, and ecosystem-level management.
- Comparatively assessed via semi-quantitative analysis
 - For example, determining how many plans referenced management objectives related to shellfish aquaculture, and what the parts of those plans were saying.



APPENDIX D

Semi-Quantitative Analysis: Full Results

SPATIAL Plan	Primarily Land Use Plans	Terrestrial	Coast	Shoreline	Intertidal Zone/ Foreshore	Nearshore	Off-shore	Surface Waters	Comox Harbour	Estuary	Baynes Sound Ref- erenced Specifically
Baynes Sound Coastal Plan for Shellfish Aquaculture				✓	✓	✓			✓		✓
Baynes Sound/Lambert Channel-Hornby Island Waters Important Bird Areas Conservation Plan		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Boyle Point Provincial Park Master Plan	✓	✓	✓	✓	✓						✓
British Columbia and The Nature Trust Joint Conservation Land Management Program (West Coast)	✓	✓								✓	✓
Comox Valley Regional Growth Strategy	✓	✓	✓	✓	✓	✓		✓		✓	✓
Comox Valley Sustainability Strategy	✓	✓	✓	✓	✓	✓		✓		✓	✓
Courtenay River Estuary Management Plan										✓	✓

Results

- Plans for Baynes Sound/Lambert Channel have all been developed independently, with very limited integration.
- However, there are many areas of convergence.
- Summaries
 - Tables, pages 19-29*; Appendix D



Results – spatial scale

Table 5.
Common spatial
elements among
management plans

Spatial Planning Element	Plans (n=29)
Intertidal zone	22
Nearshore	19
Terrestrial/shoreline	13
Estuarine	9

High degree of overlap in the spatial boundaries of the planning areas and multiple agencies are concurrently managing the same space (within their own jurisdictional authorities).



Results – temporal scale

Table 6.
Common temporal
elements among
management plans

Temporal Planning Element	Plans (n=29)
Reviewed or revised regularly	17
Indefinite time scale	15
Definite time scale	14
Include phased targets	9

No consistent temporal scale for planning and management in the Baynes Sound/Lambert Channel marine area.



Results – human activity

Table 7.
Common human
activity elements
among management
plans

Human Activity Planning Element	Plans (n=29)
Traditional use	16
Shellfish aquaculture	12
Coastal and marine tourism and recreation	12
Water quality	11
Terrestrial resource management (forestry, mining, agriculture)	11
Coastal industrial and urban development	8
Marine transportation	8
Fisheries	6

} Discussed in detail

Some degree of overlap in management of human activities in Baynes Sound/Lambert Channel, but there are also clearly designated roles.



Results - species-specific management

Table 8.
Common species
elements among
management plans.

Species Management Element	Plans (n=29)
<i>Species at risk</i>	14
<i>Birds</i>	11
<i>Marine plants</i>	11
<i>Fish</i>	7
<i>Invertebrates</i>	7
<i>Marine mammals</i>	5

} Discussed in detail

Many plans consider at-risk species or species of importance to the area.

Some species at risk management considerations were terrestrial only (not extended to coastal/marine habitat).

Eelgrass beds were most common marine plant management element.

See Appendix A
for list of
regional species



Results - ecosystem-level management

Table 9.
Common ecosystem
elements among
management plans.

Ecosystem Planning Element	Plans (n=29)
Elements of ecosystem-based management	27
Explicit ecosystem-based management approach	8

Near-universal inclusion of *some* elements of ecosystem-based management.

Few plans explicitly employ an ecosystem approach.



Opportunities for integrated management

A comprehensive integrated and ecosystem-based approach to management in Baynes Sound would weave management efforts across spatial zones, species and habitat, time and activities.



Opportunities for integrated management

- Ecosystem-based management
 - Wider inclusion of all EBM elements
- Human activities
 - Shellfish aquaculture, tourism and recreation, water quality and traditional use
- Spatial zones
 - Nearshore and intertidal areas (nearly 2/3 of plans)
- Species
 - Wider inclusion; integrating across marine and terrestrial habitats
- Roles for industry and community
 - Robust attempt to integrate management within this area would benefit from the inclusion of perspectives and efforts from industry and community stakeholders

Challenges for integrated management

- Varying time scales
 - Multiple management plans are functionally redundant and require updated replacements
 - Many documents require regular revision/update, which could present an opportunity for further integration
- Governance
 - Coordination, leadership, time and resources beyond the status quo
- Need for a shared vision
 - Most common element in the vast majority of plans was the overall health of the ecosystem



Baynes Sound / Lambert Channel
Ecosystem Forum | November 2019

Summary Report

*Prepared by Jessie Hemphill (Alderhill Planning Inc.)
for Islands Trust & World Wildlife Fund Canada*



Islands Trust



WWF



Future research and next steps

- Development of a shared vision for Baynes Sound/Lambert Channel
- Pilot (trial) initiative to improve integration of one of the opportunity areas
- Further research into successful integrated management models implemented in the marine environment at a similar scale
- Gathering of comprehensive baseline data for the Baynes Sound/Lambert Channel ecosystem, to create a common foundation for integrated management efforts
- Update of outdated or unimplemented management plans, including regular revisions, with effort to improve integration and to better include and recognize traditional use and the rights and title of Indigenous Peoples.

A close-up photograph of a person's finger holding an open mussel shell. Inside the shell is a large, round, greyish-white pearl with dark speckles. A smaller, dark, oval-shaped object is visible at the bottom of the shell. The background is a blurred, rocky shoreline.

Questions?

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