



Workshop Backgrounders

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Integrated Management – Case Studies

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Integrated Coastal Planning in British Columbia: Lessons Learned

As an area of resource extraction for consumption or refinement elsewhere, coastal communities have been forever subjected to economic vagaries or changes in harvesting methods. Declining resource bases and reduced employment due to ever more efficient technology have left coastal communities with the choice between economic diversification and perishing. Consequently, an increasingly broad range of activities, from aquaculture to ecotourism, have started to compete for finite coastal area and resources. Demand for access and concerns for the environmental implications of some activities have resulted in strident conflict and economic instability. Integrated coastal planning is seen as having the potential to balance development interests within the context of long-term environmental stability.

Strategic land use planning undertaken by the province of BC beginning in the early 1990s identified a number of priority areas for coastal planning. The Vancouver Island Strategic Land Use Plan (2000) highlighted the need for focused plans in a number of high conflict areas including Nootka, Kyuquot and Quatsino Sounds on the west coast of Vancouver Island and the Queen Charlotte Strait/Broughton Archipelago areas of the Central Coast/North Island region. The Central Coast Land and Coastal Resource Management Plan's work in coastal zone planning further emphasized the need for planning in Queen Charlotte Strait and the Broughton.

At the federal level, Canada's Oceans Act (1997) and Canada's Oceans Strategy (2002) provide direction for the Pacific Region of Fisheries & Oceans Canada to undertake a lead Integrated Management initiative, Central Coast Integrated Management (CCIM), which has been underway since 1999. Located within the central coast, Quatsino Sound was identified as a pilot Coastal Management Area (CMA) under the federal Oceans Strategy. The objectives of the federal government's participation in coastal management are to empower and enable governments, communities, First Nations, and interests and to meet their objectives through: improved communication; enhanced information sharing; and the development of an ecosystem-based adaptive management approach which includes the identification of unique, sensitive, and critical habitats leading to more comprehensive coastal planning for small geographic areas.

In 2001, the newly formed Coast and Marine Planning Branch of BC's Ministry of Sustainable Resource Management initiated a program of integrated coastal planning for selected areas of the Pacific coast. These plans focus on developing recommendations to provincial tenure programs for intertidal and aquatic lands. Taking direction from the strategic work already completed, the first project addressed the coastal nearshore and aquatic lands extending from Cape Caution to the western end of Johnstone Strait, including the waters of the Seymour-Belize Complex, Kingcome Inlet, the Broughton Archipelago and Tribune Channel. The North Island Straits Coastal Plan (NIS) was completed in December 2002 after a 14 month process and provided a model for subsequent efforts. Nearly one year later, with one additional plan completed (Kyuquot Sound), a third undergoing final review (Quatsino Sound) and three more (Chatham Sound, Johnstone-Bute, Malaspina-Okeover) scheduled for completion by March 31, 2004, it is worthwhile to consider the lessons learned and evaluate next steps.

The numerous learning opportunities identified over the past two years of regional level coastal planning can be grouped into several broad categories:

- Ecosystem based planning
- Impact profiling
- Developing networks
- Managing Input

Ecosystem based Planning

Recognizing the need to develop a credible model for analysis and decision making, efforts were undertaken to employ existing provincial instruments that supported an ecosystem approach to planning. The provincial Marine Ecosystem Classification uses physical characteristics of the marine environment (depth, benthic substrate, exposure to open ocean) and provides a hierarchical framework for classifying coastal ecosystems. The smallest division, the marine eco-unit serves as the primary instrument for identifying planning units. Although planning units are ultimately administrative in nature for provincial purposes, an effort to base recommendations on physically consistent units ensures that environmental considerations are included in the decisions making process from the outset. DFO is also employing an ecosystem basis for its coastal IM planning; consequently, eco-units offer a common basis for analysis and information sharing.

Currently physical shore type and shore zone habitat modeling are being incorporated into the environmental profile, to permit a more comprehensive examination of the relationship between human activities and environmental impacts. Another trial involves examining water quality samples in combination with tidal models to more fully incorporate features of the water column (for example, salinity and temperature) into the planning model while enabling a means to study the impact of circulation patterns on sedimentation and the dispersal of deleterious substances.

DFO has worked cooperatively to bring additional information to the table. In the Quatsino Sound process, DFO staff identified areas of ecological significance throughout the Plan area where sensitive values would likely limit the range of potential uses and activities.

Impact Profiling

The suite of uses under consideration in the NIS Coastal Plan closely mirrored the tenure programs managed by Land and Water BC (LWBC), the provincial Crown Corporation responsible for lease and sale of Crown land. Although this approach provides a common basis for discussion between planners and LWBC, a number of shortcomings quickly became apparent. Some tenure types were narrowly defined and could be used as surrogates for physical impacts (for example, aquaculture) while other tenure programs, such as commercial use, were so broad in scope that they frustrated any opportunity to engage in planning on an ecosystem basis; the impacts were essentially unquantifiable. Furthermore, as most of the provincially managed uses are linked to upland features and uses, recommendations on appropriate commercial use might have the ultimate effect of complicating resource management rather than clarifying it.

In subsequent plans, use recommendations are based on a mixture of narrowly defined uses (finfish aquaculture, log booming) and structure-based development (light and heavy docks, floating lodges and base camps). Work is currently focused on developing profiles of these categories, including siting requirements and likely impacts on biological and

physical values. This will support more informed use recommendations and economic and environmental impact assessments. A future goal is to develop use potential modeling that will serve to generally identify areas of suitability for a given use or structure.

Networking

A significant challenge for provincial staff early on was that of creating networks of a very different group of stakeholders from those more frequently found at terrestrial-based planning processes. DFO has faced a similar challenge to bring its staff and well-developed but dispersed networks of coastal user groups together in an integrated framework. During the Quatsino Sound process, provincial and federal staff worked on a one-to-many basis, consulting with stakeholders individually, with staff responsible for integration of material. Products were reviewed by a broad-based local Public Advisory Committee and stakeholders with public input available through the internet and open house sessions.

Developing effective working relationships with First Nations has been another challenge, particularly given past challenges to effectively engage First Nations in strategic level planning. In the NIS, only one of ten First Nations with asserted traditional territory in the planning area actually participated in the process. By contrast, Quatsino and Kyuquot Sound Coastal Plans, each closely reflecting the traditional territories of a single First Nation, benefited from close ties and regular input from First Nations. The two other plans currently under development are also enjoying positive relationships with respective First Nations.

Managing Input

Integration of local and First Nations traditional ecological knowledge sources has proven to be a challenge of a different sort. Faced with demands for fiscal restraint, agencies are generally less able to undertake extensive data collection efforts now than at other times. Existing provincial and federal datasets, which may be informative at the strategic level, are shown to have glaring errors and gaps when scrutinized at the larger scale of regional plans. Nevertheless, inventory standards frequently lack the flexibility to consider the tweaking of datasets that local and traditional knowledge offer. Further concerns relate to liability issues of basing management recommendations (and by extension, tenure approval) on data of uncertain origin. Some non-governmental organizations, for example the Inner Coast Natural Resource Centre (ICNRC), have developed extensive datasets incorporating data oversight mechanisms, but at present their material is not available to the planning processes. In the case of NIS, Kyuquot and Quatsino, local input has been included in unit profiles in a text format and considered during planning, but it is not displayed on unit maps that are created entirely from validated datasets.

A further challenge will be to ensure that data provided to users following a planning process conforms to the direction provided by the plan. For example, general aquaculture capability is modified not only by provincial siting criteria, but by the social recommendations of the plan; release of the capability data alone offers a very different context than that provided by the final plan. This may require the development of specific protocols to identify the precise uses of specific data layers, particularly those related to use capability assessments, or may result in limiting data release.

Future Considerations

With the completion of the provincial aspect of the Quatsino Sound Coastal Plan, comes the real work of determining next steps. For the province, plan follow-up will include employment of the management recommendations to guide the tenure allocation process and engaging in identified projects with federal departments, provincial agencies, First Nations and local government regarding such matters as economic diversification support, conservation assessments and

guidelines for tourism. Monitoring of the Plan's recommendations is set to be conducted annually with a review of the entire product in 2006. DFO is in the process of developing its model for ongoing IM planning and management of resources. This will take the form of regular and ongoing review of management options within the context of an integrated framework. Work is also being undertaken to determine mechanisms for public input, perhaps in the form of a general management advisory board.

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