

An aerial photograph of a coastal landscape. In the foreground, a wide, light-colored sandy beach curves along the edge of a dark blue body of water. To the left of the beach, a steep, rocky cliff face descends towards the shore. The background is filled with dense green forest covering rolling hills. The sky is a clear, pale blue. A semi-transparent white rectangular box is overlaid on the upper left portion of the image, containing the title text.

The State of Coastal Communities in British Columbia 2017

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Original text by Alison Stocks (2016)
Revised and updated by Kiera Vandeborne (2017)
T. Buck Suzuki Environmental Foundation

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www.bucksuzuki.org

The T. Buck Suzuki Environmental Foundation works to protect fisheries habitats, prevent pollution and promote sustainable fisheries. Fishermen and coastal activists launched the Foundation in 1981 to focus work on fish habitat protection, believing that healthy environment and healthy fisheries go hand in hand.

BC's coastal communities are diverse in many ways, but are all connected by the Pacific Ocean.

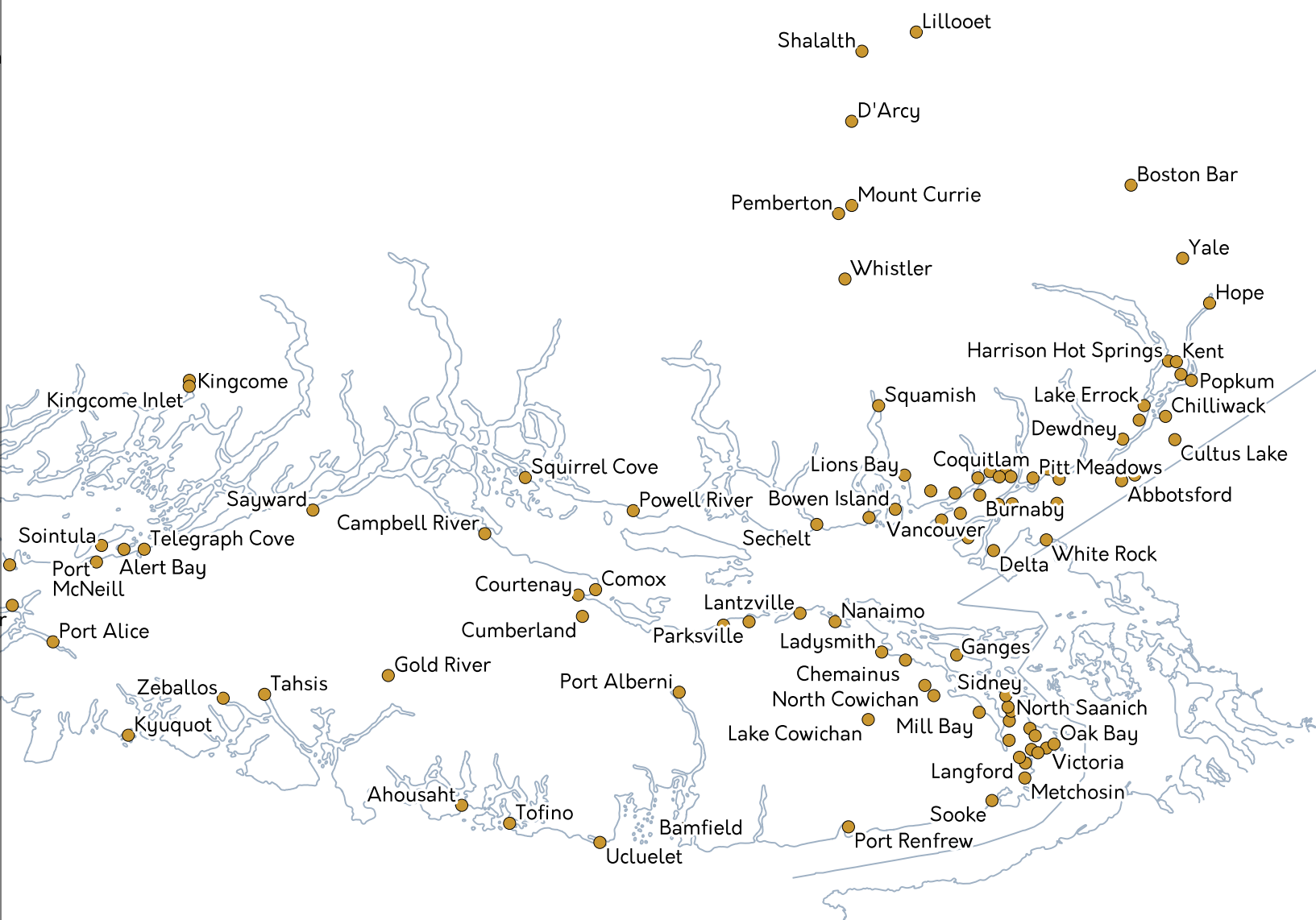


Key Messages

- Coastal communities rely heavily on the ocean economically, ecologically, socially, culturally, and spiritually.
- Infrastructure, industry, and transportation deficits disproportionately affect rural coastal areas.
- Populations are declining in rural zones and increasing in urban centres.
- Marine-related decision-making is scattered and could benefit from an integrated, multi-stakeholder approach.
- An unleashed coastal economy will not only strengthen coastal communities, it will strengthen the BC economy.



Above: Just a few of the hundreds of communities located in BC's coastal regions.





Introduction

Coastal communities across British Columbia are surrounded by vast natural resources and unparalleled beauty. The ocean is at the heart of these communities – providing food, transportation, recreation, a sense of place, and so much more. The relationship between these communities and the ocean helps to define their economic, social, and cultural fabric. For post-settlement communities, this association goes back over 150 years; while for First Nations, thousands of years of economic activity, knowledge, traditions, and culture have evolved with the ocean and its resources.

In recent years, pressures have begun to multiply along the coast, and access to coastal resources has shifted away from rural communities towards urban centres. Declining populations and the consequent loss of a local tax base has created new challenges for some communities, while others face pressures of near-doubling

populations. These, among many other issues, are inextricably linked to how we govern and manage our coasts. By better understanding the nature of the issues facing coastal communities today, we can develop pragmatic and effective solutions to protect our coast. ■

BC Demography At a Glance

GDP (2016)	\$219 billion
Population (2016)	4,683,000
Communities	over 889
Municipalities	162



Social

Overview

The ocean forms the cultural lifeblood of coastal communities; many people living in these communities depend on the ocean for their livelihoods, culture, and recreational pursuits. Fish in particular have played a major role in shaping the culture and spiritualism of many First Nations in the Pacific Northwest. In a recent study on the values of fishing, fishermen in Northern BC emphasized the importance of cultural connections made through the industry and lifestyle. They also expressed a strong desire to teach future generations about their roots, culture, traditions, and reliance on fish, along with the importance of protecting these traditions by conserving fish and the ocean at large.

Trend: Urbanization

In recent years, we have seen an increase in migration away from traditional fishing communities towards more urban centres. Although the provincial population has increased by 5.6% in the last five years, population in most of the North Coast

regional districts continues to decline.

Among all, Port Edward had the largest decrease in population between 2014 and 2015. Meanwhile, coastal BC populations around the Georgia Basin area are on the rise. The 2016 census shows Metro Vancouver growth rate at 6.5%, rising above the national level of 5%. Shifting populations can create adverse effects, both on the communities in which they land, but particularly in those they leave.

Community Wellbeing

Many demographic trends, including crime and substance abuse, can be linked to changes in traditional fishing and forestry sectors, which have particularly impacted the North and Central regions of BC.

In using the socio-economic index as an indicator of wellbeing, we see significant fluxuation in rankings across various coastal regional districts. The socio-economic index values human economic hardship, crime, health, education, children-at-risk and youth-

at-risk. In general, rural areas of British Columbia tend to have lower levels of education and health than the provincial average. The Skeena-Queen Charlotte, Kitimat-Stikine, and Alberni-Clayoquot regional districts were ranked the three worst-off in the province in 2012. Conversely, the Comox-Strathcona, Greater Vancouver, Sunshine Coast, and Capital regional districts were among the top six in the province. ■

The marine environment is inextricably linked with community wellbeing.

Fishing is just one aspect of coastal life; the ocean provides space for travel, recreation, and much more. Inhabitants of coastal areas are often concerned over how threats to the coast could disrupt their entire way of life.

Coastal Demography At a Glance

Coastal population (2016)	3,389,251
Excluding GVRD & Capital	497,573
Communities	over 300
Municipalities	74



Economic

Coastal Economy At a Glance

The latest ocean economy valuation in 2005, calculates the marine environment to contribute \$11 billion to BC's provincial GDP and 168,000 person-years of employment-amounting to 7- 8% of the provincial economy. Not included in this valuation, is the critical importance of fishing to local communities, in terms of local social capital. Combined consideration of both the formal and informal economy is needed to truly understand the immense value of our coast.

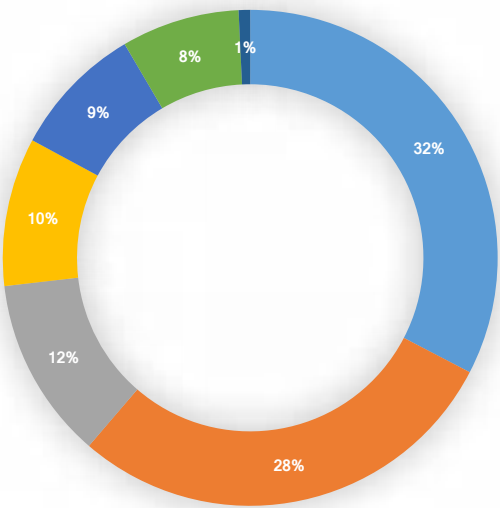
Trend: Changing Economies

BC's traditional ocean economy was built around fishing, coastal logging, marine transport, and ship building. It has since expanded, and today the major components of ocean-based industries (in their order of importance) are; recreation (33%), transport (29%), and seafood (12%).

Employment

In this time of changing economies, the economic prosperity of BC's coastal

Below: Ocean Sector Revenues (2005)



- Recreation
- Transport
- Seafood
- High Tech
- Provincial & Federal Government
- Ship Building, Forestry & Marine Construction
- Universities, Research & ENGOS

communities holds some uncertainty. In terms of employment, the Mainland/ Southwest and Vancouver Island/Coast regions are expected to account for the majority of total projected job openings. Comparatively, Northeast and North Coast, and Nechako regions are expected to have the lowest number of total job openings, despite the highest expected annual demand growth.

Infrastructure

Closure of several industrial operations in recent years has led to communities' industrial tax base to erode. Where closures have led to out-migration of the associated workforce, housing prices have fallen due to surplus of homes on the market. In some cases, the homes may be purchased by seasonal residents who spend less money locally, thereby resulting in further impacts on the local service sector.

From poor public transit, to issues with wastewater treatment, many communities

have been left with infrastructure deficits that make it difficult to attract new industry, and will require considerable investment in years to come.

Coastal Economy At a Glance

EEZ Area (km ²)	450,000
Marine-related jobs	168,000
Seafood GDP (2016)	\$4.5 billion
Seafood exports (2016)	\$3.8 billion
Visitors per year	5 million
Vessel transits (>400 GT, 2012)	29,185
Coastal ecosystem value	\$30-60 billion

Specific Economic Sectors

• Fisheries

Fisheries, both commercial and recreational, have historically provided a consistent economic base and strong community cohesion across coastal BC. Today, seafood accounts for only 12% of the ocean economy.

Coastal First Nations people have relied on fish for millennia as a crucial source of nutrients and food energy. Fish were therefore treated with the utmost respect, shaping their culture and spiritualism. The arrival of Europeans in the late 1700s marked the beginning of drastic changes in traditional fisheries, with ripple effects for the social, cultural, and spiritual aspects of First Nations fishing. Through industrialization and commercialization, traditional ecological knowledge was ignored and First Nations’ access to fisheries was increasingly limited.

Trend: Centralization

Canada’s federal government agency, Fisheries and Oceans Canada (“DFO”) is responsible for maintaining environmentally and economically sustainable fisheries and waters. DFO’s scope places a focus on ‘sustainable aquatic ecosystems’ and ‘economically prosperous maritime sectors and fisheries’ but fails to account for critical socioeconomic considerations. As a result, the industry is burdened by strict federal policies that drive fishing profits away from local fishermen and communities and into fewer hands.

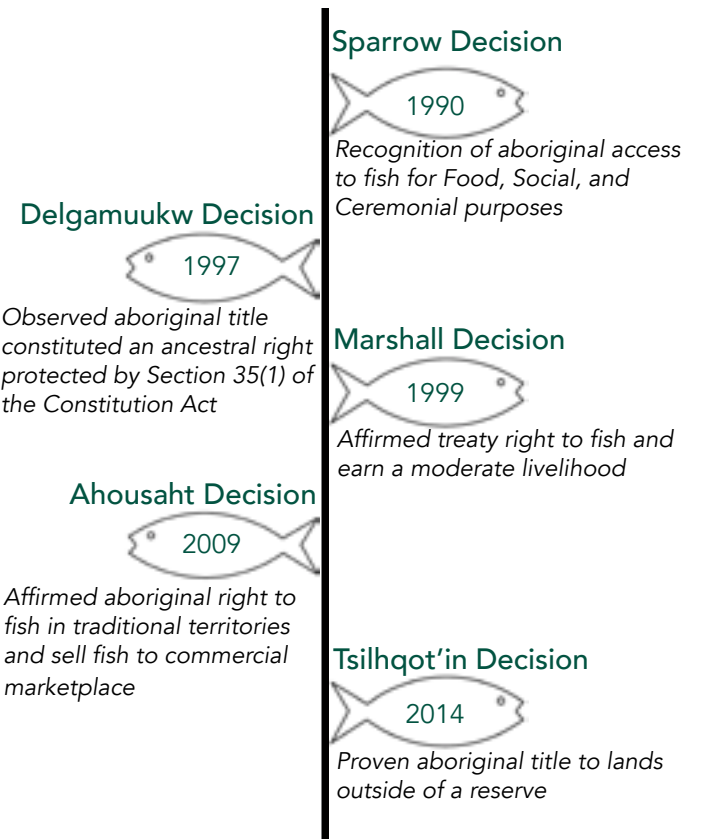
Access to Resources

Since the 1980s, BC’s fishing fleet has shrunk by 60% and the number of fishermen has decreased by 70%. Changes in management practices have shifted licence and vessel ownership from individuals to companies, and from rural to urban areas.

Commercial processing no longer a coast-wide activity, but is restricted almost entirely to urban centres. The concentration of processing from coastal to urban areas has resulted in loss of jobs and development opportunities. Local communities lose access to fresh seafood, and lack the capacity to capitalize on potential new fisheries due to a loss of infrastructure. In November of 2015, Canfisco announced the closure of the last industrial cannery in British Columbia, resulting in a loss of upwards of 500 jobs.

Slowly, First Nations’ are regaining access to fisheries through significant court rulings. Granting greater First Nations access to these fisheries can benefit the local economy.

Below: Timeline of significant court rulings for First Nations Access



Trend: Growing Opportunity

Aquaculture has flourished in British Columbia over the past forty years, becoming an important contributor to the economy of resource-based coastal communities. BC is the fourth largest producer of cultured Atlantic salmon in the world after Norway, Chile, and the UK. Aquaculture is the fastest growing food production activity in the world, and the aquaculture industry in BC represents more than half the total aquaculture production in Canada.

Need for Management

Aquaculture is dependent on good water quality conditions, which are affected by other marine activities and climate change. There is significant concern about the impacts of finfish aquaculture, including the spread of sea lice, increased waste below pens, escapement of farmed fish, and spread of disease to wild stocks. These concerns have caught rising attention and sparked debate surrounding site placements. Ultimately, effective marine planning coupled with good science, should have the potential to mitigate conflicts and bring confidence of minimal impacts.





• Tourism & Marine Recreation

Tourism generates up to \$15.7 billion in spending and \$8.3 billion in British Columbia's GDP annually. In 2016, more than 5.1 million international visitors travelled to BC, an increase in over 12% from the year prior. The coast is a particularly alluring destination for tourism – offering opportunities for recreational boating, paddle sports, whale watching, scuba diving, and much more.

Trend: Economic Potential

While tourism and recreation accounts for the largest contributor to the BC ocean economy, individual communities vary somewhat in their dependence on tourism- from a low of 2% in Kitimat, to a higher 11% on Haida Gwaii.

As communities' connections to fishing and forestry decline, tourism presents itself as an opportunity to rebuild economic stability. The BC coast remains an iconic destination

for many ocean recreation activities, but our understanding of how these might be affected by overuse or mismanagement of resources remains brings some uncertainty.

Balancing Benefits

Although tourism holds potential for economic growth, are communities really positioned to capture its benefit? Many communities are limited in their ability to capitalize on opportunity due to declining populations, narrow recreational seasons, lack of business resources, inadequate infrastructure, and high transportation costs.

As First Nations exercise ownership over their traditional lands, aspects of tourism (including camping, sport fishing, etc.) that occur in traditional territories may be impacted. The use and exposure of traditional knowledge in tourism continues to be of concern. While it may offer value to eco-tourism markets, there also exists great caution over exploitation.

• Marine Transportation and Industrial Development

Marine transportation and industrial development play an important role in connecting communities from a regional to international scale.

Trend: Connecting & Protecting

Recent announcements may represent an increase in accessibility and frequency of marine transit. A committee has been formed for the development of a marine highway, and BC Ferries has revealed increased sailings from Swartz Bay and a new schedule to the Sunshine Coast, with late-night return trips and the commuter-friendly sailings to be starting in 2018.

Changing Patterns

Over the past few years, the North Coast has been faced with threats of proposed major development projects. However, this Spring

through Fall, we have seen a change in tide and hopeful new horizon. Both the proposed Aurora LNG (\$28-billion) near Digby Island and the proposed Pacific North-West LNG (\$36-billion) near Lelu Island have announced they will not continue projects due to changing market conditions and the macroeconomic environment.

These announcements may speak to the power of collaborative action and engagement. After years of public commenting, ferry changes are now expected to better reflect and invest in coastal community priorities. There has been great push from coastal communities, and the BC community more broadly, over the potential detrimental effects of industrial development on the marine environment. The changing patterns in industrial development could signal changing priorities for the province, and BC will need to position itself on the edge of the green economy. ■



Environment

Overview

British Columbian waters are home to diverse and plentiful marine life; ancient glass sponge reefs, globally-significant bird populations, a wide variety of whales, dolphins, porpoises, and pinnipeds, and hundreds of fish species. Coastal ecosystems provide many ecological services, such as nutrient regulation, water treatment, nursery functions, and recreation opportunities. More marine species and ecosystems are at risk than ever before due to warming waters, ocean acidification, pollution, habitat destruction, and sea level rise; yet there remains little agreement as to the best way to approach these issues.

Trend: Increasing Conservation

Possible tools to address these concerns include limiting access to sensitive areas or restricting certain activities through Marine Protected Areas (MPAs). BC currently has 200 marine protected areas in all six of the provincial marine ecoregions, covering 3.2% of Canada’s Pacific waters from the coast to the far boundaries of the Exclusive Economic Zone.

Below: The various forms of spatial environmental protection measures (terrestrial and aquatic) under municipal, provincial, and federal jurisdiction. Others include aboriginal/indigenous protected areas, private protected areas, and United Nations biosphere reserves.

Municipal & Regional

Municipal Park
Regional Park
Botanical Gardens
Conservatories

Provincial

Provincial Park
Ecological Reserves
Protected Area
Conservation Area
Recreation area
Wildlife Management Area

Federal

National Park (Parks Canada)
Marine Protected Area (DFO)
National Marine Conservation Area (Parks Canada)
Marine Wildlife Area (Environment Canada)
National Wildlife Area (Environment Canada)
Migratory Bird Sanctuary (Environment Canada)
Rockfish Conservation Areas (DFO)

BC’s MPAs include many provincially-designated areas, such as the Race Rocks Ecological Reserve and the Hakai Conservancy; federally-designated MPAs including Bowie Seamount, Endeavour Hydrothermal Vents, and Gwaii Haanas; as well as the locally-designated MPA, White Cliff Park.

Ongoing conservation efforts include a proposed, large MPA off the West Coast of Vancouver Island; a proposed National Marine Conservation Area for the Southern Strait of Georgia; an MPA in development for Race Rocks; and Marine National Wildlife Area in development for The Scott Islands. In adjacent to Canada’s commitment to protecting 10% of our marine and coastal areas by 2020, a major MPA network initiative is building on our North Coast. A network of MPAs could help preserve ecosystem components, create and conserve economic and enhance recreational opportunities, and preserve cultural values and scientific opportunities.

Competing Uses

It is important to understand the costs associated with MPAS, including the loss of economic and recreation opportunities, and management expenses. An increase in conservation efforts has led to a push for large (30-50%) to fully closed MPAs. Restricting use will inherently disadvantages some over others, and these potential closures cover a considerable area that could severely limit the adaptive capacity of fisheries. While the establishment of protected areas may lead to benefits in enhanced food security and political empowerment, they may also negatively affect a minority of fishers. ■

Coastal Biogeography At a Glance

Coastline (km)	27,000
Islands	6,500
Marine protected areas	197
Marine fish species	409
Marine mammal species	31



Management

Overview

Several authorities are responsible for varying aspects of coastal management and planning. At least twenty-six federal agencies and eight provincial ministries have a role in ocean management, in addition to the roles of local government and First Nations. First Nations are increasingly gaining control over resource use within their traditional territories, and these opportunities will lead to changes in resource allocation.

Trend: Limited resources

Many players lack necessary capacity to complete and deliver on plans. Much of coastal BC falls under the zoning responsibility of Regional Districts, with very large geographic areas and very small tax bases. As a result, Official Community Plans in these areas largely remain undeveloped due to insufficient funds. Although many First Nations across the coast have developed marine use plans, lack of resource and authority cause these plans stand still.

Incomplete solutions

Current management regimes can result in a patchwork of First Nations, federal, provincial, and municipal agencies that fail to coordinate regulatory efforts and resolve conflict among competing user groups. Marine management on a project-by-project basis through sector-by-sector strategies does not provide the groundwork for effective management. A provincial marine planning strategy based on integrated management is key to coordinating efforts as First Nations take greater control over their traditional territories. ■

Unleashing the green coastal economy will not only strengthen coastal communities, it will benefit the whole BC economy. This requires investments in social infrastructure, rural policies, and operational infrastrucutre.

Ocean & Coastal Strategy (2009)

In 2009, the province released an Ocean & Coastal Strategy that highlighted four major issues and opportunities: economic development, fisheries reform, ocean health, and hardship in coastal communities. Four Action Plan outlines were developed to address these issues, centering around:

- 1. Growing and greening our ocean and coastal economy by making smart investments in people, technology, and innovation.
- 2. Ensuring that BC’s marine fisheries are well managed, sustainable, and remain a significant part of coastal British Columbian economies.

- 3. Protecting the health of our ocean and the benefits it provides.
- 4. Creating a foundation for health and prosperity in our coastal communities by planning collaboratively for the future.

To date, no formal progress report has been given on these outlines. However, BC has made steps towards protecting ocean health and ecological integrity through a joint Canada-BC MPA Network Strategy, and towards collaborative planning through the endorsement of the First Nation-BC MaPP plans.

Below: The aspects of ocean management that fall under municipal, provincial, and federal jurisdiction.

Municipal & Regional

Aquaculture
Ocean recreation
Marine transportation

Provincial

Aquaculture, Commercial
Fishing, Seafood Processing,
Sport Fishing
Ocean Recreation
Marine Transportation (ports)
Environmental Assessments
Marine Energy and Mining
Research, Monitoring and
Enforcement

Federal

Aquaculture, Commercial
Fishing, Sport Fishing
Ocean Recreation
Marine Transportation, Marine
Safety, Navigation
Ocean Disposal
Marine Energy and Mining,
Marine Tenures, Oil and Gas
Development
National Defence, Public
Safety

First Nations

Aquaculture, Commercial
Fishing, Sport Fishing
Ocean Recreation
Marine Transportation

Ocean Management At a Glance

Federal agencies	26
Provincial ministries	8
Coastal regional districts	14
Coastal First Nations	over 130
Governance agreements	over 24
Advisory committees	over 36



Planning for the Future

Overview

From its vast geography, to its competing uses, and multitude of stakeholders- BC's coastal and ocean territory certainly presents the need for holistic governance.

The province has a responsibility to grow existing and new partnerships with First Nations and coastal communities in efforts to plan for the future. Coastal communities need easily accessible inventories of commercial and recreational activities to determine the impacts these activities have on the surrounding ecosystem, along with maps of ecologically, culturally or socially important ecosystems like eel grass beds, kelp forests, and clam beaches. This information will help decision makers develop strategies that have the least negative impacts to the environment and other users.

Trend: Growing Governance

Over the past five years, BC has made incremental progress towards improved coastal management. The Marine Planning Partnership (MaPP) was established in 2011 as a collaborative initiative between the province and 17 First Nations, aimed at sustainable development, economic opportunity, and ecological integrity for the North Pacific Coast.

MaPP identifies four sub-regions- Haida Gwaii, North Coast, Central Coast and North Vancouver Island. Sub-region marine plans were completed in the Spring of 2015, and are coupled with sub-region implementation agreements, and a broader Regional Action Framework (released in Spring of 2016). The marine plans and action framework are to be monitored with an adaptive management

approach, and substantial stakeholder engagement will be crucial to the initiative's success as the implementation process continues to unfold.

In November of 2016, Canada launched a \$1.5 billion national Oceans Protection Plan. This plan aims to improve marine safety and responsible shipping, protect our marine environment, and offer new possibilities for Indigenous and coastal communities. Engagement sessions have just begun, with sessions across the coast and country.

Integrated marine planning (IMP) may act as a tool to bring together stakeholders in planning and management of a region, where stakeholders seek consensus on management strategies through face-to-face interactions. Integrated management strategies have proven to outperform single-focus measures and aid in effective

ecosystem-based management. IMP aims to ensure environmental health of the region, while supporting sustainable development of the economy, considering increased resource use in the coming decades. In BC, IMP can help ensure the prosperity of our diverse and valuable coastal communities by:

- Identifying appropriate uses while protecting the environmental, cultural, and social importance of a given area.
- Mitigating conflicts as First Nations exercise ownership over their traditional lands.
- Mitigating conflicts with the placement of controversial projects (e.g. LNG, aquaculture) and bringing confidence of minimal impacts.



Summary

The complexity of ocean jurisdiction should not prevent action and strategy development.

British Columbia’s coastal communities are diverse in many ways, but are all connected by the Pacific Ocean. These communities have developed cultures, societies, and economies that are intertwined with the vast ocean resources that surround them.

We are in a time of significant change, with shifting population pressures, proposed major industrial developments, and growing impacts of climate change. Considering the changes and pressures ahead, collaborative governance through integrated marine planning may be the best avenue for securing the prosperity of BC’s coast.

The coast is one of BC’s most valuable resources, and effective coastal and ocean management should be one of our top priorities. ■

Below: Governing rules over coastal shores.

	Backshore	Foreshore	Nearshore
Municipal & Regional	Plan and regulate land use through OCPs, zoning, development permits, etc.	Land use planning and regulation extends into foreshore that lies within local government boundary	Land use planning and regulation extends into nearshore areas that lie within local government boundary
Provincial	Issue tenures (permit, licence of occupation, lease or grant) and sale of provincial Crown lands	Issue tenures over all foreshores	Issue tenures over all nearshore areas in inland seas
Federal	Fish habitat protection, including shoreline and riparian vegetation and timing windows	Fish and fish habitat protection, public navigation	Fish and fish habitat protection, public navigation
First Nations	Planning and regulation in Reserve lands; may be negotiating Treaty rights elsewhere	Planning and regulation in Reserve lands; may be negotiating Treaty rights elsewhere	Planning and regulation in Reserve lands; may be negotiating Treaty rights elsewhere

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