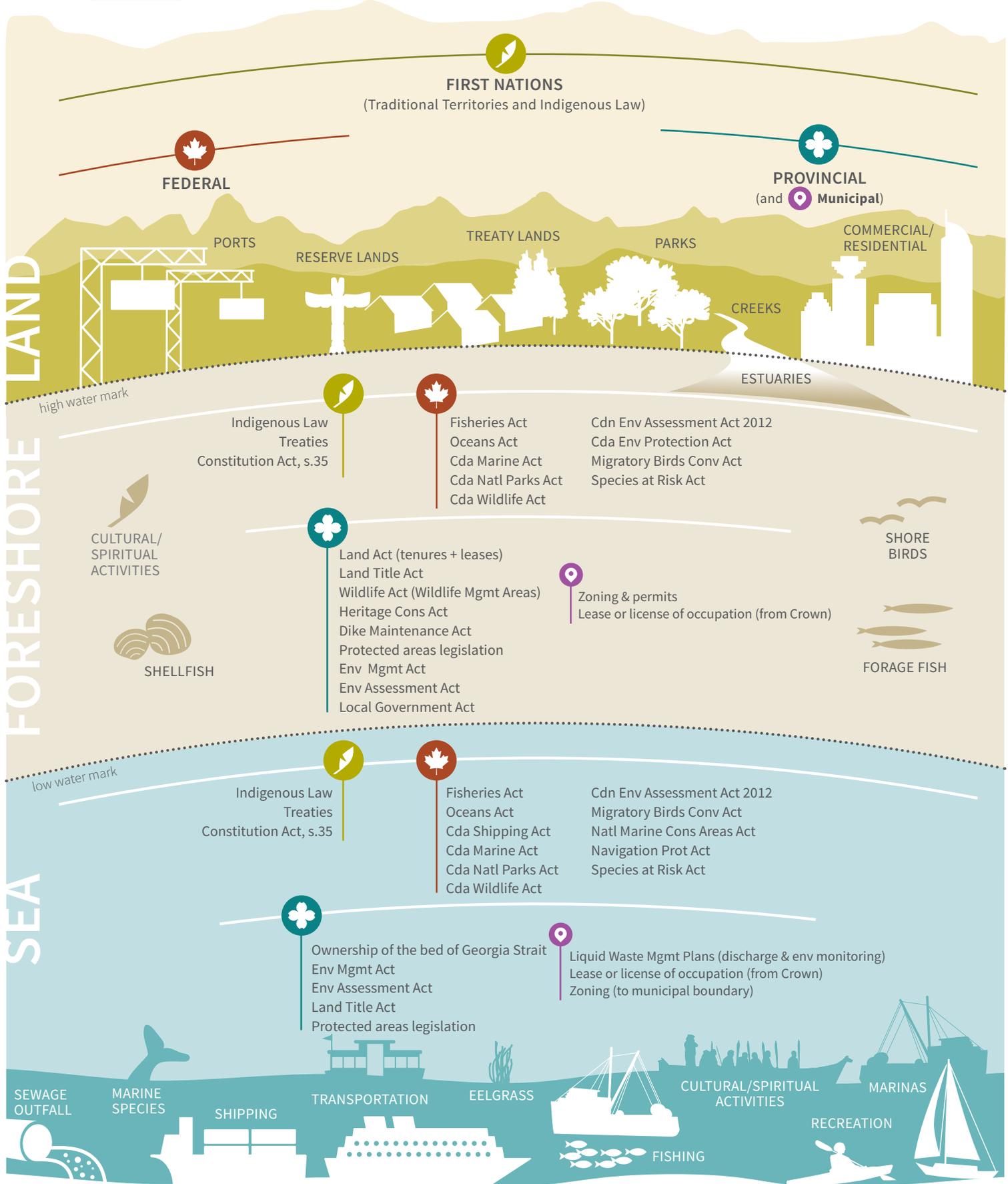




WHY WE NEED TO WORK TOGETHER TO MANAGE OUR COASTLINE

# Jurisdiction in Coastal BC



# PROTECTING SOUTHERN BC'S COASTS IN A CHANGING CLIMATE: Green & Blue Opportunities

The south coast of BC, including the Lower Mainland and parts of Vancouver Island, is home to over 3.5 million people. Transportation infrastructure along the coastline, including ports, ferries, railways and highways, connects BC and our economy to the rest of Canada and the world. Despite development, the region still has rich biodiversity and ecosystems. The Fraser River is the most important salmon river in the world. The region also belongs to the territories of the Coast Salish First Nations.

Investigation into the impacts of sea level rise and increased storm surge in the region confirms that there are substantial vulnerabilities in both the built and natural environments. Existing flood protection measures for communities and infrastructure have been shown to be inadequate for present conditions, much less the increased risks associated with climate change. Coastal ecosystems are already highly stressed and damaged by development and ongoing activities, and lack resilience to adapt to climate change. The region also faces challenges related to proposed port expansion, a new bridge across the Fraser, and other large projects. As well, more than a million additional people are expected to move into the region by 2040.

Early ideas about possible responses to sea level rise have focused on engineering solutions, using large barriers and higher dikes. These approaches are expensive, and can lead to catastrophic

consequences if they fail, like the levees in New Orleans after Hurricane Katrina.

Emerging research and practices suggest that the greatest resilience for coastal communities and ecosystems can be obtained through approaches that include natural coastal features. "Green coastal infrastructure" such as wetlands, beaches, reefs, eelgrass and barrier islands, both natural and eco-engineered, can measurably help to buffer wave impacts and higher waters. At the same time it can provide natural habitat and valuable ecosystem services. Where it is impossible to rely on natural features alone, green dikes and other hybrid approaches are available.

Assessing opportunities for green coastal infrastructure requires baseline knowledge about ecosystem conditions and projected climate change impacts. Because southern BC lacks coordinated coastal management, the information needed is scattered across different governments and agencies, community organizations and academic institutions, and there are gaps.

Implementing green coastal infrastructure approaches is challenging for similar reasons: it isn't clear who can decide what, and on what basis. Yet, at the same time, green coastal infrastructure fits with the sustainability mandate of the federal government and of many local governments in the region, and may offer opportunities to align with Coast Salish First Nations planning and priorities.

To assist in moving forward with coastal protection options, West Coast Environmental Law is organizing a workshop and networking series, with invitations to policy and decision-makers at all levels of government (provincial, First Nations, federal and local). The workshops will provide information about coastal green infrastructure from leading experts who have been responsible for coastal green infrastructure projects and policy in other jurisdictions. Discussion to consider challenges and opportunities in the south coast BC context will also be supported.



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