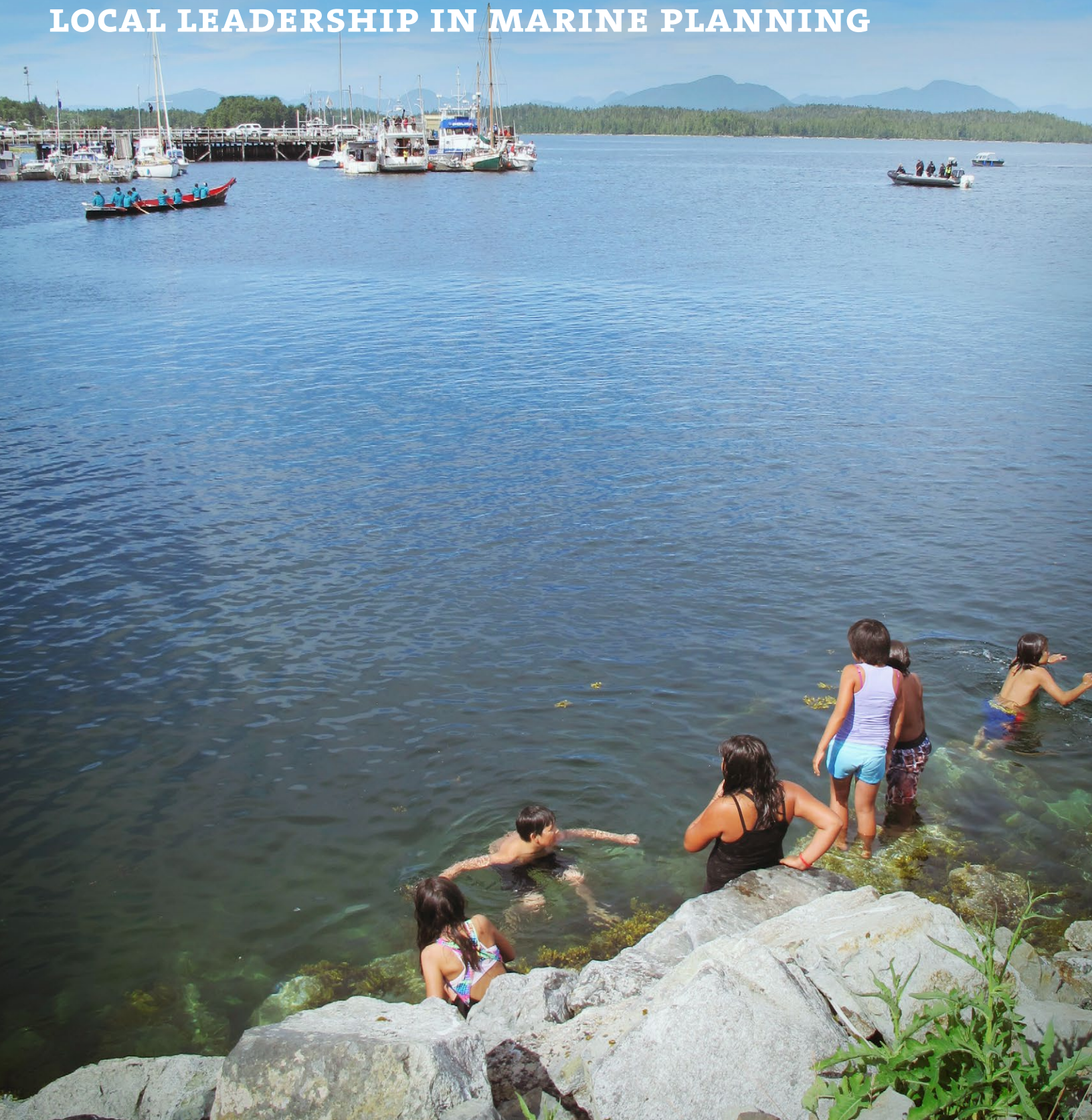
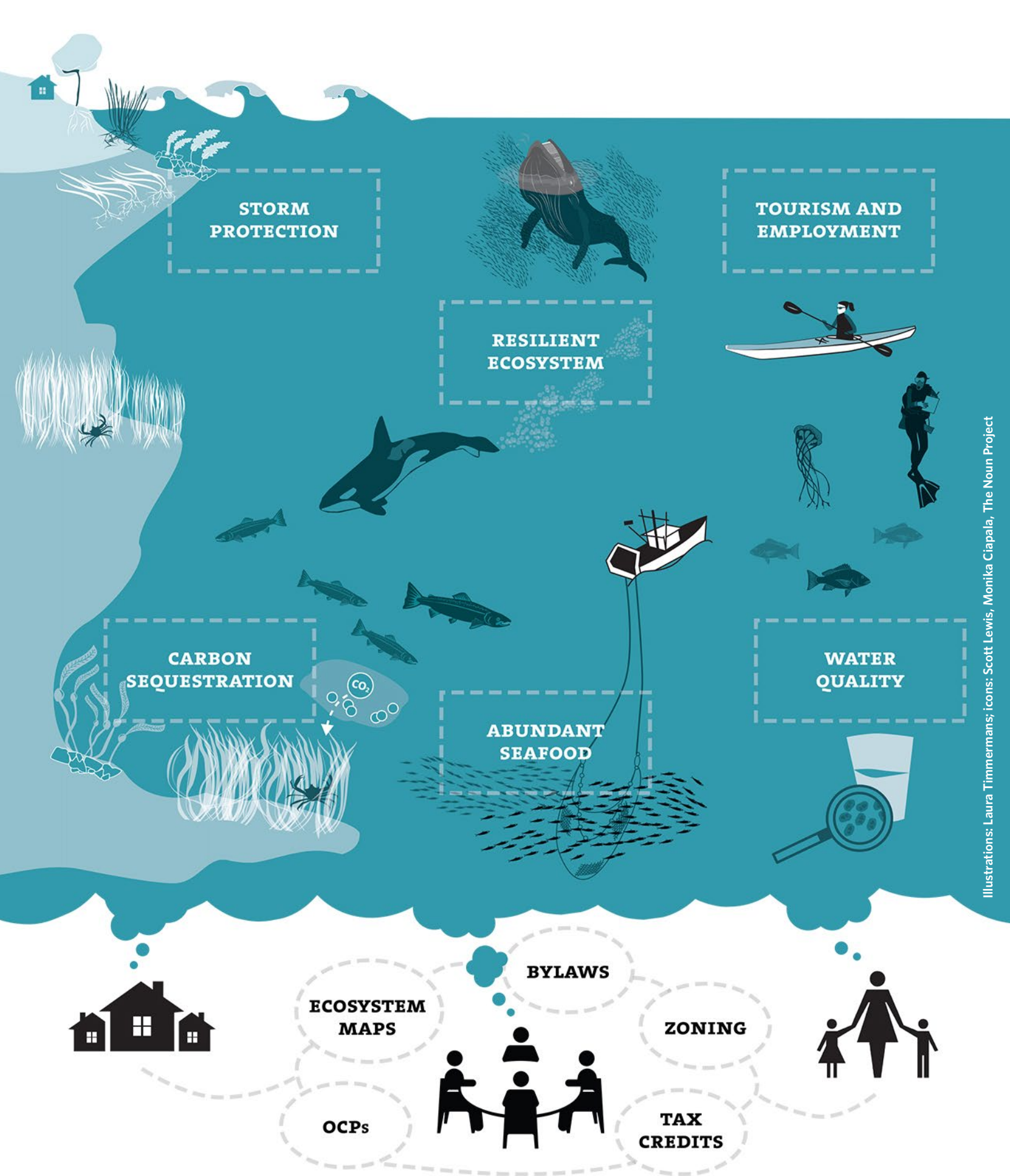


# PROTECTING YOUR COMMUNITY'S COASTAL ASSETS

LOCAL LEADERSHIP IN MARINE PLANNING







Illustrations: Laura Timmermans; icons: Scott Lewis, Monika Ciapala, The Noun Project

**COASTAL COMMUNITIES BENEFIT WHEN LOCAL GOVERNMENTS MANAGE FOR BIODIVERSITY**

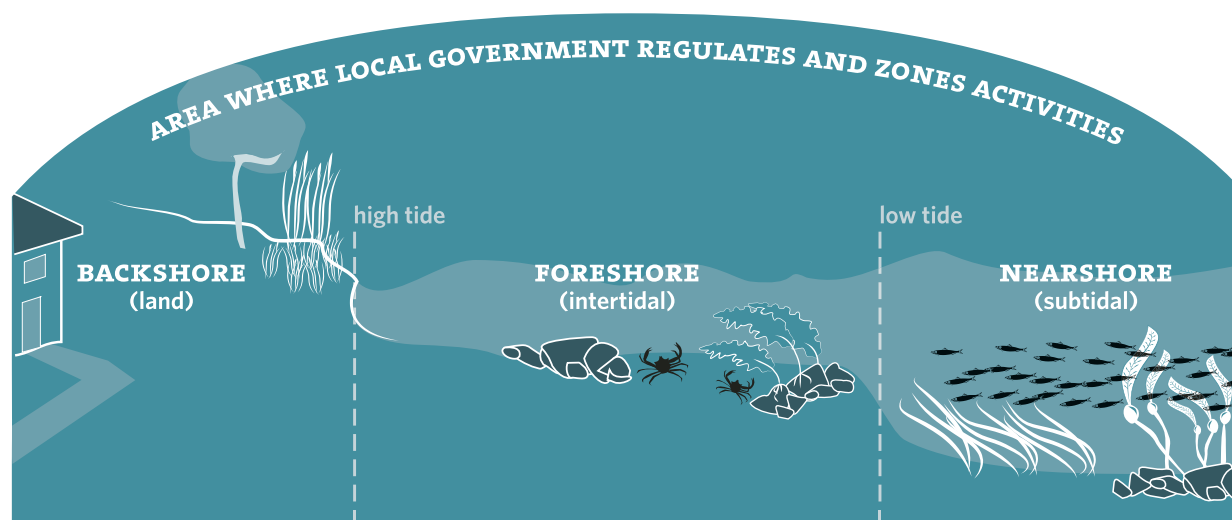


# SUMMARY

## LOCAL GOVERNMENTS ON B.C.'S COAST HAVE THE POWER TO PROTECT THE ECOSYSTEMS WE DEPEND ON.

British Columbia's coasts and oceans provide billions of dollars in economic benefits.

This report describes easily accessible resources local governments can use to maintain aquatic ecosystem value and productivity, including maps and tools to guide decisions and bylaws regarding management of activities on land, and in intertidal and sub-tidal zones.



According to the B.C. Community Charter and the Local Government Act, local governments can zone land and water surface in backshore, foreshore and nearshore areas within their boundaries.<sup>1011</sup>



# HERE ARE THE TOOLS YOU NEED TO PROTECT YOUR MARINE ASSETS

Photo: Keefer4 via Wikimedia

## Official community plans and zoning bylaws

OCPs and zoning bylaws provide a structure for decision-making about types and densities of human activities, and allow public participation and local control of land and nearshore marine areas. They can and should guide protection, restoration and enhancement of ecosystem integrity and biodiversity.

They can also identify environmentally sensitive areas and those suitable for development, include policies to minimize risk of hazards such as pollution, erosion and flooding, and outline programs to monitor ecosystem health.<sup>10</sup> A community's zoning bylaws should be consistent with the policies and objectives in its OCP.

## Stewardship guidelines

The Stewardship Centre of B.C. and the B.C. government provide these relevant resources:

- *Green Bylaws Toolkit for Conserving Sensitive Ecosystems and Green Infrastructure*<sup>9</sup>
- *Shoreline Structures Environmental Design*<sup>2</sup>

- *Coastal Shore Stewardship: A Guide for Planners, Builders and Developers*<sup>10</sup>
- The Green Shores program of planning and design for sustainable use of coastal ecosystems<sup>19</sup>
- *Sea Level Rise Adaptation Primer*<sup>3</sup>

## Maps and tools to help set priorities

**Sensitive Ecosystem Inventories** enable systematic identification of fragile and at-risk ecosystems and can inform land- and marine-use decisions. Methods to conduct SEIs are available, and maps have already been created for some parts of B.C.<sup>4</sup>

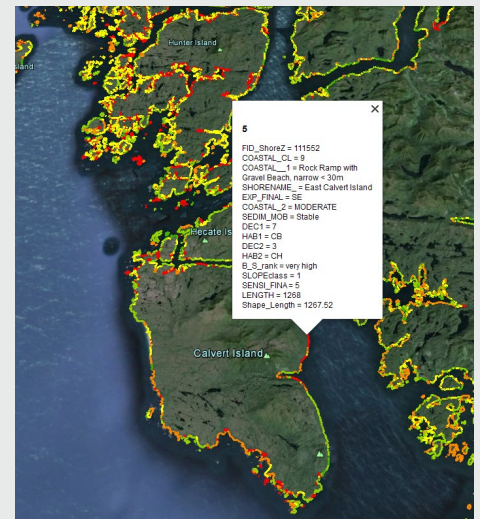
**Marine atlases** show areas of high conservation value, locations of marine resources and concentrations of human use. Examples are the *Marine Atlas of Pacific Canada* and its associated data sets<sup>5</sup>, the *Atlas of the Pacific North Coast Integrated Management Area*<sup>15</sup> and maps and tools from the Community Mapping Network.<sup>7</sup>

The District of Saanich (above) developed an *Environmentally Significant Areas Atlas* to improve their baseline knowledge.<sup>8</sup>



See reference 8 for download link.

The B.C. Ministry of Environment has developed a visual model ranking the **B.C. shoreline's sensitivity to sea level rise** in an easily accessible format that can help prioritize areas needing attention.<sup>6</sup>





# WHY DO LOCAL GOVERNMENTS NEED A PLAN TO PROTECT THEIR COAST?

Photo: Tina Neale via Flickr



## Our decisions affect our health

What we do on land has an impact on the value of coastal and ocean ecosystems, which affects our individual and collective health and well-being.

For example, engineering streams into channels instead of letting them filter through natural systems reduces ground-water availability, increases erosion and prevents salmon spawning.<sup>10,21</sup> Removing coastal vegetation for development can lead to erosion and damage sensitive nearshore habitats, which support fisheries. As sea level rises and storm intensity increases with climate change, built defences won't protect costly development investments from damage as effectively as coastal plants and natural beaches.<sup>16</sup>

Coastal and nearshore areas support a wide range of human activities. Planning what happens where can help us protect what we value and prevent conflicts that could undermine important community relationships.

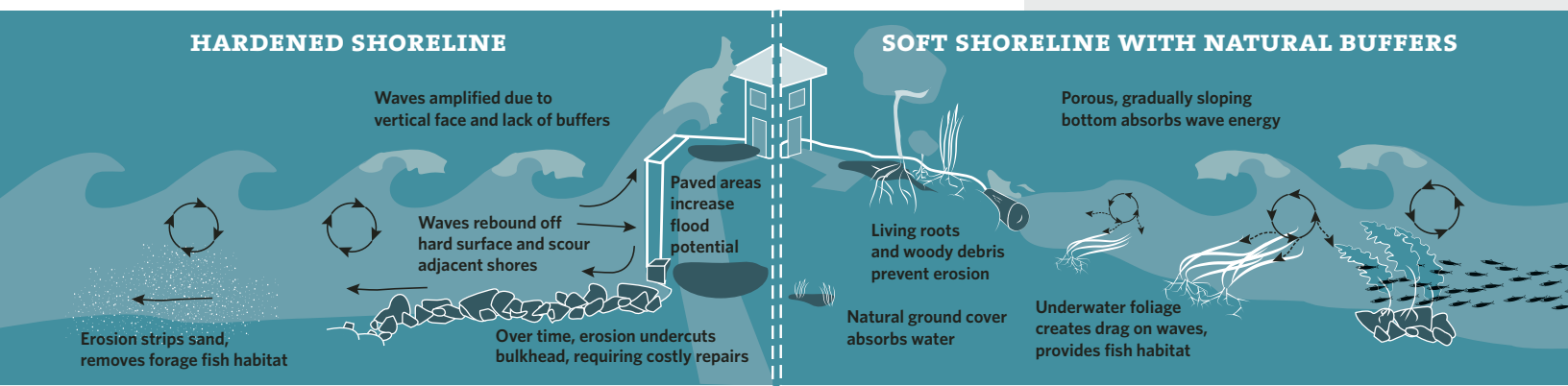
## Local government's increasing role in protecting the environment

Recent changes to federal legislation mean development proposals may no longer have to undergo comprehensive environmental assessments and could proceed with only low-scrutiny screening. In addition, current regulations don't adequately consider their cumulative effects.

Community plans and initiatives can help ensure development decisions preserve the integrity of the ecosystems they depend on to thrive.

The South Cowichan OCP contains a section on marine shoreline management to prevent development impacts. The plan was developed through community visioning and consultation, guidance by a steering committee and efforts to ensure broad representation.<sup>20</sup>

*Infographic adapted from reference 16.*



# B.C.'S COASTAL COMMUNITIES CAN HELP PROTECT OUR COASTAL WATERS

## Local governments have a huge opportunity

Local governments play a strong role in maintaining the integrity of our coastal and marine ecosystems.

According to the B.C. Community Charter and the Local Government Act, local governments can zone land and water surface in backshore, foreshore and nearshore areas within their boundaries.<sup>11</sup> Local governments can also protect ecosystems by creating bylaws regarding OCPs (and their components, such as development permit areas), regional growth and conservation strategies, rainwater management, impact assessments and tax exemptions for conservation.<sup>9</sup>

## The value of our ocean

Healthy coasts provide a multitude of community benefits, including:

- Fish, shellfish and seaweed for food, medicine and sale
- Storm protection (extreme weather is predicted to increase in frequency and intensity with climate change)<sup>12,18</sup>
- Water purification, by metabolizing human and animal waste

- Cycling nutrients in the food web
- Carbon sequestration
- Habitat for a diversity of animals, including those we eat
- Places for recreation, learning and enjoyment with family and friends

Pacific North Coast marine activities contributed more than \$300 million to B.C.'s gross domestic product in 2005 — the “market value”.<sup>17</sup> But the total economic value of ecosystems is not accurately captured in this market valuation. Most of the important values listed above are “non-market” goods and services that are not represented.

The economic benefit (total market and non-market value) of Pacific North Coast marine and coastal ecosystems was estimated to be \$92 billion annually.<sup>13</sup> Lower Mainland freshwater and marine ecosystems provide \$31 - \$61 billion in non-market benefits every year.<sup>14</sup>

Quadra Island’s OCP integrates marine protection measures into many of its sections. The local government and community’s investment in developing the OCP paid off — now it’s showcased as a model of dispute resolution.<sup>1</sup>





# ACTIONS

- Develop OCPs and bylaws that protect coastal and marine ecosystems by using ecosystem maps and prioritization tools and linking with stewardship groups
- Engage with marine planning initiatives at provincial and federal levels to voice your community's protection priorities

We can help! Contact [pacific@davidsuzuki.org](mailto:pacific@davidsuzuki.org) to discuss how your community can develop a plan that will safeguard the resources you value.

## Local governments can set a positive example for all levels of government



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Report prepared by Anuradha Rao, David Suzuki Foundation, with contributions and guidance from Jim Abram, Strathcona Regional District; Karin Bodtker and Morag Carter, Living Oceans Society; Deborah Curran, University of Victoria Faculty of Law; Panos Grames and Gail Mainster, David Suzuki Foundation; and Nikki Wright, SeaChange Marine Conservation Society.

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**The power is in your hands.  
Local governments on the coast can and must  
protect the ecosystems we all depend on.**

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