Teamwork makes the Dreamwork

Collaborative management of Vancouver's Intertidal Ecosystem

Executive summary

- Intertidal ecosystems have important ecological, social, and cultural values to the City of Vancouver, but have been neglected from the environmental management plans
- British Columbia is one of the only remaining regions in North America that lacks comprehensive law and management plans for our coast
- A Coastal Marine Management Strategy Plan should be established in collaboration with all jurisdictions involved in intertidal manage

Meagan Mak



@_meaganmak



Rocky intertidal area around Stanley Park, Vancouver, BC

Importance of Intertidal Area

Ecology

- Provide habitat, food, and spawning ground
- Maintain the water quality and integrity of the shores

Society

- Contributes to the wellbeing of Vancouverites.
- Attractions for both locals and tourists

Culture

- Hold immeasurable value for coastal First Nations and local populations.
- Supporting food sovereignty, recreation and cultural connection

Current Management Regime

City of Vancouver

In charge of regulating shoreline development through zoning and permitting [1].

BC Provincial Gov

Typically own land at the intertidal up the "low tide mark" and "inland waters"(incl. Vancouver coast) [3]

Vancouver Park Board

Designated jurisdictional control and management over public parks in Vancouver [2]

Fisheries and Oceans Canada

Responsible for regulating Canada's water column within its exclusive economic zone (EEZ) [5]



Transport Canada

Responsible for management shipping lanes and granting intertidal ownership to ports

Why collaboration

- 1. Clarify complex jurisdictional responsibilities to prevent user conflicts and implement effective ecosystem-based management
- 2. Strengthen coastal adaptation to climate change and sea-level rise, as evident by the mass intertidal species mortality during the 2021 heat dome event
- 3. Prevent coastal habitat loss by regulating anthropogenic activities such as urban encroachment and shoreline hardening
- 4. Minimize inefficient decision-making by ensuring improved cooperation and coordination among all orders of government.



Intertidal organisms found along the Vancouver coast

Case Study: Shoreline Management Act - Washington, USA

The Shoreline Management Act was created to prevent the "inherent harm in an uncoordinated and piecemeal development of the state's shorelines". [6] Under the Act, the Department of Ecology (DOE, state government agency) coordinates coastal policy at the state level by setting requirements for local governments in regard to planning and regulation and represents the State's interest while cooperating with the Federal government. Meanwhile, local government is delegated to construct a Shoreline Master Plan to be upheld by all government jurisdictions.



▲ Intertidal organisms found along the Vancouver coast

Recommendation for Vancouver's Intertidal Management

- Incorporate intertidal species and habitats into the City of Vancouver's infrastructure, recreation, development, and climate change planning
- Develop a Coastal Marine Strategy plan [1] that engages with all jurisdictions including the federal government (DFO, TC, PC, ECCC), BC provincial government (Ministry of Environment), Indigenous government (Musqueam, Squamish, Tsleil-Wauthut Nations), and local government (CoV and VPB).
- Set up regular community collaboration programs to conduct monitoring and research on the City's intertidal areas, so to develop a baseline that will be referenced across all parties
- Initiate an ecosystem-based management regime through collaboration with all levels of jurisdictions, the preserve and restore the City's current intertidal ecosystems and their functions

Reference:

- [1] Government of British Columbia (Dec 2022). A Coastal Marine Strategy for British Columbia Policy Intention Paper. https://engage.gov.bc.ca/app/uploads/sites/121/2022/12/Coastal-Marine-Strategy-Intentions-Paper.pdf#OutcomeC
- [2] Vancouver Charter, SBC 1953 Chapter 55, Part XXIII Parks https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/vanch_24
- [3] West Coast Environmental Law. Provincial Jurisdiction of British Columbia over Coastal and Ocean Matters.
- https://www.wcel.org/sites/default/files/publications/2020-06-fag-provincialjurisdiction-coastal-updated.pdf
- [4] Fisheries and Oceans Canada. (2023) https://www.dfo-mpo.gc.ca/index-eng.html
- [5] Transport Canada. (2010). Marine Act and Regulation. https://tc.canada.ca/en/marine-transportation/marine-safety/2-marine-acts-regulations
- [6] Shoreline Management Act, 90 Wash Rev Code § 58 (Statute Law Committee 1971)

Contact

Honourable Joyce Murray

Minister of Fisheries, Oceans, and the Canadian Coast Guard Minister's Office 200 Kent St. Station 15N100 Ottawa ON. K1A 0F6 min@dfo-mpo.gc.ca

Honourable George Heyman

BC Minister of Environment and Climate Change Strategy PO Box 9047 Stn Prov Gov Rm 112, Parliament Building Victoria, BC. V8W 9E2 ENV.Minister@gov.bc.ca

Mayor Ken Sim

3rd Floor, City Hall 453 West 12th Ave Vancouver, BC V5Y 1V4 Ken.Sim@vancouver.ca