

Objectives



> The first coast-wide marine pollution monitoring program in B.C. and Canada (est. 2015)

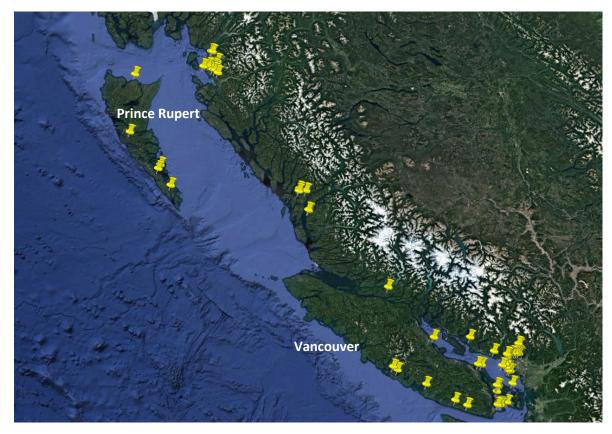
Objectives

- Establish a long-term, coast-wide, partner-supported pollution monitoring program to gather consistent, comparable data over space and time.
- > Use data to inform:
 - Pollution priorities and emerging contaminants of concern
 - Source identification & controls/regulations
 - Research & Collaboration

Sites



Monitoring chemical contaminants and microplastics in mussels and nearshore, subtidal sediment coast-wide



> 60 Sites Coast-wide



Metro Van and S. Van Island

Data Collection



Collect samples every 3 years

Phase 1: 2015-2017

Phase 2: 2018-2020

Phase 3: 2021-2023

Fieldwork

- Work with multiple partners to collect samples (First Nations communities, community groups, port authorities, government agencies, industry)
- Sampling conducted in the winter (late Oct. to end of March) to avoid mussel spawn

Lab Work

 Ocean Wise manages submission of samples to the labs and receives and manages analytical data





Chemical Analysis



- Analysis of up to 14 contaminant classes
 (> 500 chemicals)
 - Chemical contaminant analyses

 external labs
 - Microplastics → OW Plastics Lab

TIER 1
310
contaminants

310 contaminants including:

Metals
Microplastics
Polybrominated diethylethers (PBDEs)
Polychlorinated biphenyls (PCBs)
Polycyclic aromatic hydrocarbons (PAHs)

TIER 2
388
contaminants

+ 78 = 388 total contaminants including:

Alkylphenols Dioxins & furans Legacy pesticides Perfluorinated compounds (PFCs)

TIER 3
547
contaminants

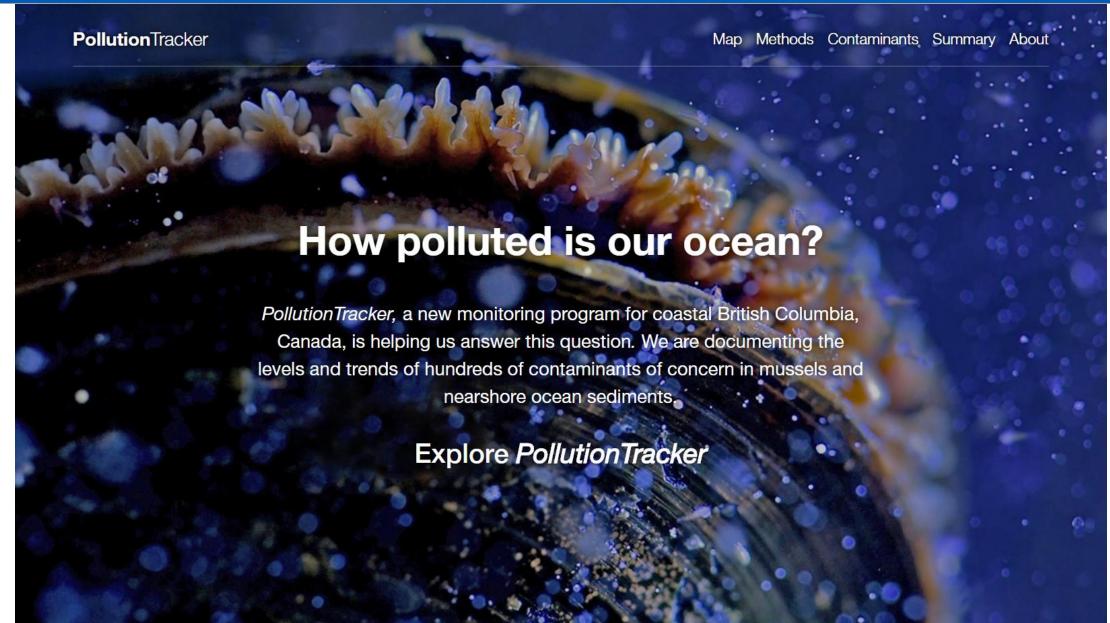
+ 159 = 547 total contaminants including:

Current-use pesticides Hexabromocyclododecane (HBCD) Organotins

Pharmaceuticals & personal care products (PPCPs) Tetrabromobisphenol A (TBBPA)

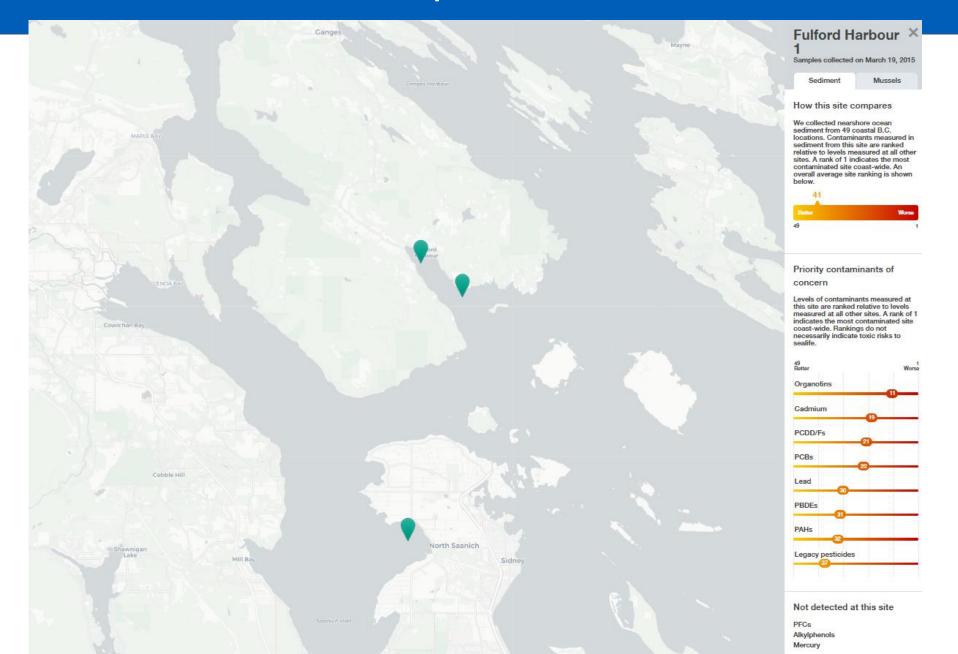
Website: pollutiontracker.org





Website: Interactive Map





Cowichan Bay - Options



- 1. Identify priority contaminants in standard media (e.g., sediment, mussels)
 - Presence/absence
 - Contaminants of potential concern
 - Propose 3-4 sites in Cowichan Bay
 - 4 sites with 2 sites analyzed @ Tier 1 level & 2 analyzed @ Tier 3
 - Cost dependent on # of sites, level of analysis, and level of reporting and community engagement
- 2. Design long-term monitoring study
 - Clams
 - Pollution Tracker (?)

Funding Sources – Financial Support







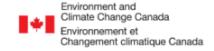














Metlakatla First Nation

Association of Denman Island Marine Stewards

Funding Sources - In-Kind Support



Bamfield Marine Sciences Centre

Comox Valley Project Watershed Society

Council of the Haida Nation

Gitga'at Nation

Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve and Haida Heritage Site (Parks Canada)

Heiltsuk Nation

K'ómoks First Nation

Lax Kw'alaams Band

Musqueam Indian Band

Nuu-chah-nulth Tribal Council

Saturna Island Marine Research and Education Society

Tlowitsis Nation

Tsawwassen First Nation