

Harbours Environmental Action Service



2021-2026 Program Accomplishments

Capital Regional District | Environmental Protection

This appendix provides a summary by priority focus areas of the Harbours Environmental Action Service (Harbours Program) collaborative efforts and accomplishments in 2021-2026. For more information about the program see: <https://www.crd.ca/environment/stormwater-watersheds-harbours/harbours>.

Ecological Data Collection and Monitoring

Monitoring and data collection form the foundation of the Harbours Program, supporting evidence-based decision-making, long-term environmental protection and planning.

- Harbours Ecological Inventory and Rating: The Harbours Program has completed an update to the Harbours Ecological Inventory and Rating (HEIR) Project, providing a comprehensive spatial inventory and ecological ratings for intertidal, backshore, and subtidal habitats across the core area harbours. This work represents the second iteration of the original HEIR 2000 Project. The HEIR Project datasets support coastal management, ecological restoration, land use planning and stewardship initiatives, and will be made publicly available through the Capital Regional District (CRD) Harbours Atlas in 2026, with interim access available to partners through a data use agreement.
- Land Cover Classification: With support from regional services, the land cover classification was completed in 2021. Watershed-scale mapping provides estimates of tree canopy cover, impervious surface area, and changes over time by municipality and watershed.
- Support for Partner Monitoring Projects: The Harbours Environmental Action Service supported the following partner-led monitoring initiatives through financial support, volunteer support or data sharing:
 - Olympia oysters in Gorge and Portage Inlet – World Fisheries Trust
 - Acoustic monitoring for Coastal Cutthroat Trout – Peninsula Streams and Shorelines
 - Invasive European Green Crab monitoring – Fisheries and Oceans Canada
 - 6PPD Quinone Monitoring – BC Conservation Foundation and Vancouver Island University
 - Coastal Cutthroat Trout Habitat in Victoria Harbour – BCIT and Peninsula Streams and Shorelines
 - Eelgrass Species Distribution Model Validation Project – Fisheries and Oceans Canada

Capacity Building

- Harbours Stewardship Speaker Series: The Harbours Stewardship Speaker Series provides free public and professional learning opportunities focused on harbour and watershed protection. Since 2024, topics have included:

- Salmon Safe Certification
- Green Shores – Protecting Waterfront Properties and Natural Shoreline
- Mitigation Inputs of Tire Wear Toxins (6PPDQ) to Protect Salmon Habitat
- Coastal Engineering Design Considerations for Shoreline Protection and Restoration
- European Green Crab Detection and Response in the Capital Region
- Natural Asset Management
- Green Shores Training: Green Shores, a program of the Stewardship Centre for BC, promotes natural and resilient shoreline design to protect ecological and physical function, enhance habitat, and reduce climate change risks such as sea level rise and storm surge. The CRD is an active member of the [Green Shores Working Group](#), a collaborative network of local governments from Vancouver Island and the Lower Mainland. As a member of the Green Shores Working Group, the CRD Harbours Program:
 - sponsors an annual Green Shores level 1 training course free of charge for local government and First Nations staff
 - supported delivery of a two-day level 2 training course in 2023 and 2024 and is exploring offering this course again in 2026
- Support for Partner Events:
 - Coastal Zone Canada – Pacific Chapter on Nature Based Solutions
 - Peninsula Streams and Shorelines Cutthroat Trout Symposium
 - Synergy Foundation Ecostar Awards
 - Victoria Herring Enhancement Society Symposium
 - Victoria Harbour Migratory Bird Sanctuary (MBS) 100th anniversary

Coordination of Stewardship Initiatives and Partnerships

Strong partnerships and community stewardship are essential to protecting and enhancing the core area harbours and watersheds. The Harbours Program coordinates the following stewardship initiatives:

- Gorge Waterway Initiative: Coordinated by the CRD, the Gorge Waterway Initiative (GWI) is a collaborative, community-driven partnership of local governments, non-profits and community groups working to protect, enhance and restore the natural and cultural features of the Gorge Waterway, Portage Inlet and associated watersheds.
- Esquimalt Lagoon Stewardship Initiative: Coordinated by the CRD, the Esquimalt Lagoon Stewardship Initiative (ELSI) is a coalition of local government, community and environmental organizations, academic institutions, and government partners dedicated to protecting, enhancing, and restoring the Esquimalt Lagoon and Coburg Peninsula.
- Information Sharing, Outreach and Project Engagement:
 - GWI and ELSI meet quarterly to share information, identify priorities, and discuss emerging issues and opportunities.
 - Regular email updates are distributed by the GWI and ELSI Coordinator.

- GWI and ELSI have engaged with many projects and learning opportunities through presentations, site visits and tours including:
 - Infrastructure Projects
 - BC Hydro Esquimalt to Victoria Cable Replacement Project
 - CRD Regional Trestles Renewal, Trail Widening and Lighting Project
 - Highway 1 Bus on Shoulder Project
 - BC Transit HandyDART – Salmon Safe Certification
 - Planning Projects
 - Gorge Coastal Flood Adaptation Strategy
 - City of Colwood Biodiversity Conservation Strategy
 - Colwood Waterfront Stewardship Plan
 - Parks Canada - Proposed National Urban Park
 - Restoration, Remediation and Monitoring
 - Transport Canada – Cecilia Cove Restoration Project
 - A cultural tour of the Gorge Waterway led by Songhees Tours
 - CRD Goose Management Program
 - McLoughlin Point Wastewater and Marine Monitoring Programs
 - Royal Roads University monitoring Colwood Creek and Hatley Creek
 - Purple Martin Stewardship and Recovery Program
- ELSI and GWI non-profit partners attend public summer events to provide outreach on behalf of the CRD. Each event includes displays, print materials and interactive watershed models.
- Coordinated Responses and Site Engagement: The GWI and ELSI provide coordinated input on planning documents and development applications, including Official Community Plan updates and waterfront development proposals such as:
 - Colwood Waterfront Stewardship Plan (2021)
 - 2820 Shoreline Drive (Town of View Royal) – Environmental Permit Application (2023)
 - Coastal Marine Strategy Intentions Paper (Province of British Columbia) (2023)
 - Rezoning Application - Capital Cultural District (City of Victoria) (2025)
 - District of Saanich Official Community Plan Update (2024)
 - Victoria Official Community Plan Update (2024)
- Volunteer Engagement and Citizen Science: Volunteers play a central role in monitoring, restoration, and public education. The Harbours Program has supported the following volunteer opportunities:
 - **Invasive European Green Crab Monitoring:** ELSI volunteers collaborate with Fisheries and Oceans Canada's Aquatic Invasive Species Program to monitor Esquimalt Lagoon for invasive European Green Crab which were originally detected by ELSI volunteers in 2019. GWI and ELSI representatives are members of the Victoria European Green Crab Response Working Group coordinated by Fisheries and Oceans Canada.
 - **Coastal Cutthroat Trout Monitoring:** Bee Creek (ELSI) volunteers monitor fish presence and habitat conditions monthly between May and October.

- **6PPD-Quinone Monitoring:** ELSI volunteers collaborated with the BC Conservation Foundation and Vancouver Island University to monitor tire-wear toxins in Colwood Creek.
- **City Nature Challenge Participation:** Stewardship partners support community-based biodiversity monitoring initiatives.
- **Volunteer Appreciation:** The Harbours Program hosts an annual volunteer appreciation dinner to celebrate the significant commitment and effort of volunteers to protect and enhance local marine waters and watersheds.
- Support for Restoration Projects
 - **Esquimalt Gorge Park Green Shores Demonstration Project (2022-2025) (Township of Esquimalt):** The Harbours Program participated as a member of the technical advisory committee alongside the Township of Esquimalt, the Stewardship Centre for BC, the Pacific Salmon Foundation and World Fisheries Trust. The project was completed in 2025.
 - **Green Shores Feasibility Inventory for the Gorge Waterway and Portage Inlet (2022):** CRD report review as part of the Resilient Coasts for Salmon initiative.
 - **District of Saanich – Colquitz River Green Shores Design Project (2024):** Participation in design workshop. Staff from Saanich and the CRD, community stakeholders, and representatives from Associated Engineering, DHI Water & Environment Inc, and the Stewardship Centre for BC collaborated to create a preliminary conceptual design incorporating Green Shores nature-based approaches to shoreline restoration.
- Gorge Coastal Flood Adaptation Strategy: Led by the City of Victoria, the Gorge Coastal Flood Adaptation Strategy is a collaborative project between municipalities that border the Gorge and Portage Inlet. The project partners include the District of Saanich, the Township of Esquimalt and the Town of View Royal with support from the CRD Harbours and Climate Action programs. The strategy will help guide long-term decision-making about how each municipality adapts to rising water levels to protect people, infrastructure, the shoreline and local ecosystems.

Priority Focus for 2026

- Update Harbours Atlas with the Harbours Ecological Inventory and Rating data
- Update land cover classification using 2023 provincial LiDAR data (once available)
- Continue to build awareness of harbour and watershed health with Harbours Stewardship Speaker Series and initiative outreach
- Provide training and technical support related to shoreline management and nature-based solutions through Green Shores Level 1 and 2 training
- Develop education and outreach materials, including the *Ecology of the Gorge* brochure
- Expand engagement with stewardship partners and First Nations