

Esquimalt Lagoon Stewardship Initiative 2016 Annual Report



Introduction

The Esquimalt Lagoon Stewardship Initiative (ELSI), supported by the Capital Regional District (CRD), is a broad coalition of community and environmental groups, institutions, governments and First Nations working together to protect, enhance and restore Esquimalt Lagoon and Coburg Peninsula. After forming in 2001, ELSI developed a Stewardship Plan for Esquimalt Lagoon which provides the framework for a coordinated approach to environmental management of the area. The consensus-based steering committee is responsible for guiding the implementation of this plan. The initiative creates opportunities for collaboration on environmental projects and outreach activities, and provides a forum for exchange and sharing of information. A part-time ELSI coordinator, funded through the CRD, initiates and manages projects, seeks funding and coordinates the initiative.

In 2016 volunteers continued to monitor fish populations in streams entering the lagoon, conducted creek water quality sampling and helped with broom pulls and beach cleanups. A new tabletop display was developed and used at public events in the area. ELSI joined several regional partners in the Urban Sanctuary Project to promote awareness about the migratory bird sanctuaries in the CRD.

Vision

To protect, enhance and restore the health of Esquimalt Lagoon for future generations of people, plants and animals.

Goals

Goal 1:

Promote and support lagoon stewardship and education

Goal 2:

Prevent further loss or destruction of habitat and wildlife

Goal 3:

Reduce contaminant inputs to the lagoon

Goal 4:

Promote environmentally protective recreation use in the lagoon area

Goal 5:

Promote environmentally protective land use

Highlights

Water Quality

Each year, CRD staff collect water quality data from Colwood, Bee and Selleck creeks and a selection of stormwater flows discharging into the lagoon. In 2016, staff rated 7 stormwater discharges in Esquimalt Lagoon for public health concern. Staff assigned a low public health concern rating to all discharges into the lagoon with the exception of Bee and Selleck creeks which received moderate ratings. Bacterial levels were consistent with those measured in previous years with some samples exceeding 200 CFU/100 mL of E.coli. Ruminant animals (e.g. deer) and dogs are believed to be the sources of these bacteria based on previous source tracking analysis results (2014). Bacterial counts were and continue to be lower than previous years at another discharge (933) which was a concern in 2015. Creek water quality data indicated that Bee and Selleck creeks are healthy relative to other CRD creeks. Phosphorus was slightly elevated in Colwood, Bee and Selleck creeks, as it is in all CRD creeks, however one measurement in Bee Creek in July 2016 was higher than usual (0.11 mg/L). Additionally, turbidity was elevated in the winter measurement in Bee Creek. No other exceedances of aquatic life guidelines were measured. CRD will continue to monitor the creeks in 2017 with some intensive monitoring in Colwood Creek.

CRD staff trained ELSI volunteers in the protocols for 5-in-30 water quality monitoring to measure nutrients, temperature and turbidity in creeks. During the summer, volunteers monitored Bee Creek at two sites above and below the construction zone at Pacific Landing property, and provided the data to CRD Stormwater Program staff. Initial findings showed exceedances of turbidity and temperature in Bee Creek. This will be repeated in the winter season to provide data for both wet and dry seasons, to supplement data collected by CRD staff every 5 years in Bee Creek.

The CRD Stormwater Monitoring Coordinator gave a presentation to the ELSI steering committee summarizing several years of stormwater and creek monitoring.

The new ELSI portable display was completed in time for the summer outreach season.

Land and Water Use

The ELSI committee had regular updates from Colwood planning department on developments around the lagoon, and a presentation by the Director of Engineering about erosion monitoring at Coburg Peninsula, protection for the sewer pump station there, and plans to move the station away from the peninsula in anticipation of sea level rise.

Representatives from Dwight School, a private boarding school being planned for a site straddling Colwood Creek, presented plans for buildings, landscaping and environmental protection at the site.

Colwood began a review of their Official Community Plan in 2016, and ELSI members participated in several community engagement events, providing input about the importance of preserving and protecting the fragile ecosystems at the lagoon that support birds and wildlife. ELSI provided Colwood with sign drafts to post at the lagoon to remind visitors that they are in a Migratory Bird Sanctuary, not to disturb or feed birds, and the importance of staying on trails to reduce trampling in the fragile dunes. Public education is especially important as Colwood is holding more public events and festivals at the lagoon, including having food trucks there every weekend during the summer. ELSI submitted a letter to Colwood Council expressing concerns about the importance of reducing trampling of the dunes during public events to help preserve the vegetation that holds the sediment of the peninsula in place.





CRD stormwater monitoring staff trained ELSI volunteers to conduct water quality monitoring in creeks that enter the lagoon.

Stewardship and Outreach Events

ELSI volunteers worked with the Greater Victoria Green Team to hold invasive plant removal events at Coburg Peninsula and in Pit House Park. Students from Dunsmuir Middle School joined us to pull broom in Pit House Park.

Colwood initiated new events at Coburg Peninsula in 2016, and ELSI participated in Eats & Beats at the Beach in July with the interactive model of the Esquimalt Lagoon watershed. The model was also used at the RRU Mother's Day Paint-In and Canada Day at Fort Rodd Hill where volunteers also had the new ELSI display set up. Volunteers also participated in Earth Day celebrations at Royal Bay High School. The ELSI coordinator gave a presentation to an urban restoration class at University of Victoria, and the display and outreach materials were set up at a public talk about Migratory Bird Sanctuaries held at the Robert Bateman Centre.

ELSI joined several conservation partners in the region to participate in the Urban Sanctuary Project, in celebration of the 100th anniversary of the Migratory Bird Convention Act signed in Canada in 1917. The Project aims to raise awareness of the three Migratory Bird Sanctuaries in the capital region and the importance of protecting and enhancing marine and upland ecosystems that support birds and other wildlife in our urban centres. An informative brochure highlighting the sanctuaries was developed and is posted on the ELSI website and used at all outreach events.

Fish Monitoring

Creeks entering the lagoon were regularly monitored by volunteers for presence of fish. As in the past, cutthroat trout were caught regularly in Bee and Colwood creeks, but for the first time no juvenile coho were found during the fall in Colwood Creek. Other species caught were sculpin, sunfish, crayfish and a juvenile bullfrog was seen. Although invasive American bullfrogs are known to inhabit lakes in the Colwood Creek watershed, this is the first time ELSI volunteers have observed one so close to the lagoon. The sighting was reported to the Ministry of the Environment.

Bee Creek Restoration

The restoration of Bee Creek riparian area underwent some changes in 2016 when construction began on the Pacific Landing property. The restoration work completed by volunteers in recent years is being protected within the riparian area during construction work. Under the guidance of the project's environmental consultant, the drainage from the building footprint is being used to create new wetland habitat within the Migratory Bird Sanctuary, and a spawning channel to attract cutthroat trout has been constructed using water flowing beneath the new buildings.



Esquimalt Lagoon Stewardship Initiative

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ELSI Partners

Committee Members

- Canadian Wildlife Service
- Capital Regional District
- City of Colwood
- City of Langford
- Colwood Community Association
- Parks Canada
- Royal Roads University
- Victoria Natural History Society
- Local residents

Advisory Members

- Esquimalt Nation
- Songhees Nation
- BC Ministry of Environment
- Department of National Defence
- Environment Canada
- Fisheries and Oceans Canada



Focus for 2017

In 2017, ELSI will focus on:

- Reviewing and providing comments on development proposals in the lagoon area
- Providing input to Colwood's Official Community Plan revision
- Celebrating the centennial of the Migratory Bird Convention Act in Canada
- Work with Colwood to incorporate interpretive signage at the lagoon
- Working with our partners to improve water quality in the lagoon and investigating nutrient sources entering the lagoon and its tributary creeks, and establishing water quality objectives for Esquimalt Lagoon
- Promoting activities that engage the community in stewardship of the Esquimalt Lagoon watershed

ELSI volunteers teamed up with the Greater Victoria Green Team on our annual broom pull at Coburg Peninsula. photo credit: Amanda Evans

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