

Esquimalt Lagoon Stewardship Initiative 2014 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, chaired by the CRD Harbours and Watersheds Coordinator, 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.

This year ELSI reviewed several development plans for lands adjacent to the lagoon, helped plant dune grass on Coburg Peninsula and conducted outreach events including an invasive plants workshop. Volunteers worked to improve stewardship of the lagoon and adjacent dune ecosystem, monitored fish populations in streams around the lagoon and helped support the Bee Creek restoration project.

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 Objectives

Each year, CRD staff collects water quality data to provide information about watershed health from Colwood, Bee and Selleck creeks and a selection of stormwater discharges at the lagoon. In 2014, staff conducted more in-depth assessments of Bee and Selleck creeks and a discharge pipe at the toe of lagoon, including analysis of nutrients, bacteria, caffeine, physical parameters and metals. Benthic invertebrates were also assessed in Bee and Selleck creeks; analysis of that data is pending.

Water quality data indicated that Bee and Selleck creeks appear to be healthy relative to other CRD creeks. Of concern, however, were the elevated levels of nutrients (nitrate, phosphorus), bacteria (fecal coliform, E.coli) and suspended solids/turbidity in these creeks and at the toe of the lagoon. The source of these bacteria was ruminant animals (e.g. deer) and dogs, however bacteria of human origin was also detected. Caffeine, indicative of a human source of contamination, was not detected. This thorough baseline study will provide a foundation for comparison of watershed health over time.



A free day-long invasive plants workshop was held with Parks Canada partners at Fort Rodd Hill in October. Participants learned how invasive plants impact local ecosystems, best methods for eradication and control, as well as native plant propagation techniques.

CRD staff presented results of their 2013 public survey of the core area harbours to the committee. Results indicated that the primary uses of Esquimalt Lagoon include visiting parks and beaches, viewing wildlife/birds, using trails and walkways, solitude/reflection and photography. The most important concerns were disturbance to wildlife, water pollution, marine habitat and shoreline vegetation loss and garbage/litter. The most valued features of the lagoon were wildlife, aesthetics, clean water, diverse natural shorelines, and the creeks and estuaries. The community vision statements that most people agreed with were: healthy natural areas/biological diversity; people recognize/protect natural and cultural features; engaged and active community; solitude and tranquility, and recreational activities can be enjoyed. Survey results and the water quality data, will form part of the water quality objectives being established for Esquimalt Lagoon by the CRD and the BC Ministry of Environment.

Land and Water Use

ELSI provided input and comments to the City of Colwood on proposed revisions to the City's Official Community Plan. Neighbourhood plans for two large developments adjacent to Esquimalt Lagoon (Ocean Grove and Royal Bay) are being revised in conjunction with new development applications for those properties and ELSI provided a coordinated response to each proposed revision. A development at Pacific Landing (formerly Essencia) is also moving forward. ELSI met with representatives from that development and Ocean Grove to learn more about their proposals and provided input and recommendations to help minimize the impact of these large developments on the health of the environments around the lagoon, both during and after construction.

ELSI provided input to Colwood's revised policy on placement of memorial benches at Esquimalt Lagoon. There are 14 memorial bench locations along Coburg Peninsula, and ELSI continues to recommend that no additional benches be placed at the lagoon in order to minimize disturbance to the fragile dune ecosystem. The existing benches are rarely used as people tend to use the driftwood logs when visiting the beach.



Camosun College students planted approximately 350 native dune grass plants into the dune foreshore area of Coburg Peninsula. Colwood Parks staff and ELSI volunteers assisted, and the Coast Collective Gallery provided space for propagation.

Stewardship and Outreach Events

ELSI volunteers held a broom pull on Coburg Peninsula in May and participated in the Canada Day celebrations at Fort Rodd Hill and Fisgard Lighthouse National Historic Site. ELSI participated in outreach events at the Coast Collective art gallery on Esquimalt Lagoon, including 'Basically Birds' where ELSI sponsored a public talk by local birding expert Ann Nightingale. ELSI sponsored the Esquimalt Lagoon interactive watershed model at these public events. In the fall, the coordinator led a walking tour of the lagoon area for the Victoria Natural History Society, and ELSI members worked with Parks Canada to provide an invasive plants workshop for the public at Fort Rodd Hill. Volunteers continued their regular beached-birds and coastal water bird surveys in partnership with the Canadian Wildlife Service.

Classes and student clubs from Camosun College, Royal Roads University and the University of Victoria participated in several volunteer work parties and site tours, and a volunteer appreciation event was hosted by one of the volunteers in December. Several education and outreach events were held in conjunction with events at the Coast Collective Art Gallery. Volunteers worked with Camosun College to propagate and maintain dune grass seedlings for the Dune Habitat Restoration Project. Volunteers spent over 280 hours in 2014 working on this restoration project.

Fish Monitoring

ELSI volunteers continued to monitor fish in the creeks that enter Esquimalt Lagoon through live trapping and release. Continuous seasonal monitoring since 2004 confirms that there are resident populations of cutthroat trout throughout Bee and Colwood creeks. Coho salmon fry are found regularly in lower reaches of Colwood Creek despite the concern of low summer flows. ELSI will summarize the data and submit it to the Department of Fisheries and Oceans.

Dune Grass Restoration

The dune grass plants propagated by Camosun College Environmental Studies staff and students over the past few years were ready to plant in the fall. City of Colwood Parks staff, ELSI volunteers and Camosun students collaborated to transport and plant approximately 350 plants in two plots at the lagoon. These were surrounded by temporary fencing to protect plants from trampling.

Bee Creek Restoration

Dedicated volunteers continued work on the Bee Creek restoration project, following the Landscape Management Plan developed in 2008. Weekly work parties continued to remove invasive plants from riparian areas and replace with a variety of native species, including grasses and *Camas* for the Garry oak meadow being established. Cardboard sheet mulching used to control reed canary grass proved ineffective in the lowest reaches of the creek because of tidal action. Native willows were planted in the tidal areas in an effort to shade out the canary grass.

Esquimalt Lagoon Stewardship Initiative

625 Fisgard Street
Victoria, BC V8W 1R7
250.360.3299
info@elsi.ca
www.elsi.ca

ELSI Partners

Commitee Members

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

Advisory Members

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



Focus for 2015

In 2015, ELSI will focus on:

- Reviewing and providing comments on development proposals in the lagoon area
- Establishing water quality objectives for Esquimalt Lagoon
- Working with our partners to improve water quality in the lagoon and investigating nutrient sources entering the lagoon and its tributary creeks
- Facilitating installation of the First Nations interpretive signs and cedar mural with Colwood and First Nations partners
- Promoting activities that engage the community in stewardship of the Esquimalt Lagoon watershed

Pictured above: King Tide at Coburg Peninsula in December 2014. Photo by Beth Mitchell

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