

Our Vision

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

Our Goals

- Promote and support lagoon stewardship and education
- Prevent further loss or destruction of habitat and wildlife
- Reduce contaminant inputs to the lagoon
- Promote environmentally protective recreation uses in the lagoon area
- Promote environmentally protective land uses



Evidence of dense algal blooms in Esquimalt Lagoon can be seen in the discoloured murky water.

Background

The Esquimalt Lagoon Stewardship Initiative (ELSI) is a broad coalition of community and environmental groups, institutions, government and First Nations, working together to protect, enhance and restore the Esquimalt Lagoon and Coburg Peninsula.

After its founding in 2001, ELSI developed a Stewardship Plan for Esquimalt Lagoon which provides a framework for a coordinated approach to environmental management. ELSI creates opportunities for collaboration on environmental projects and outreach activities and provides a forum for the exchange and sharing of information.

ELSI is led by a consensus-based steering committee responsible for guiding the implementation of the Esquimalt Lagoon Stewardship Plan. Two working subcommittees focus on implementing outreach, education, planning and restoration. ELSI is chaired by the Capital Regional District's Stormwater, Harbours and Watershed Program (SWHP) and a part-time coordinator, funded through SWHP, initiates and manages projects, seeks funding and coordinates ELSI.

that caused patchy area of strongly discoloured water in the lagoon climaxing in fish kills. In 2009 CRD Stormwater, Watershed and Harbours Program (SWHP) conducted extra sampling of stormwater discharges flowing into the lagoon and the lagoon itself for pH, temperature, conductivity/salinity, dissolved oxygen, turbidity and nutrients. Upstream investigations also were conducted to look for the possible source of increased nutrients. Analysis of water samples found bacteria from birds and dogs, high phosphorous levels and increased nutrients in both groundwater and stormwater discharges flowing into the lagoon, most likely contributing to extensive phytoplankton blooms, in turn causing low oxygen levels climaxing in fish kills.

A Masters student at the University of Victoria commenced research in Esquimalt Lagoon investigating nutrient dynamics and their relationship to microalgal blooms. This research involves the measurement of three nitrogen forms: nitrate, ammonium, and urea, as well as phosphate and silicate in order to better-understand how changes in nutrient concentrations and ratios affect the abundance and species composition of microalgae.

For nearly a decade, ELSI volunteers and students have run a water quality monitoring program at Esquimalt Lagoon. The aim is to monitor the long-term health of the lagoon and its associated wildlife habitat by assessing water quality parameters at critical times of the year.

2009 Accomplishments

Water Quality Monitoring Program

The lagoon experienced, for the fourth consecutive year, dense algal blooms in late summer and fall

ELSI Committee

- Canadian Wildlife Service
- Capital Regional District Environmental Services
- City of Colwood
- City of Langford
- Colwood Association for Smart Growth
- Esquimalt Lagoon Enhancement Association
- Go Rowing and Paddling
- Habitat Acquisition Trust
- Local residents
- Parks Canada
- Royal Roads University
- SeaChange Marine Conservation Society
- Victoria Natural History Society
- West Shore Chamber of Commerce

Advisory Members

- BC Ministry of Environment
- Capital Regional District Parks
- Department of National Defence
- Environment Canada
- Esquimalt Nation
- Fisheries and Oceans Canada
- Songhees Nation

Stewardship and Education

ELSI participated in several stewardship and educational events at Esquimalt Lagoon in 2009, including sponsoring two free public talks by local experts on earthquake and tsunami hazards on southern Vancouver Island, and about the birds of Esquimalt Lagoon. ELSI showcased the outreach display and/or the Esquimalt Lagoon interactive watershed model at number of partner's events around the lagoon.

The yearly, Scotch Broom removal and garbage pickup events hosted by ELSI are always popular events drawing participation from the community at large and number of dedicated ELSI community members which also conducted ongoing Scotch Broom removal. Since Scotch Broom is such pervasive invasive species on Coburg Peninsula, ELSI purchased a tool to make removal easier.

Fish Monitoring Program

In Fall of 2009, ELSI lead a tour with the Community Advisor, Department of Fisheries and Oceans, around the lagoon looking at the current state of several main tributaries. Progress was seen on the creeks where recent restoration has taken place. Recommendations were made to closely monitoring areas of concern where silt is washing into the creeks and accumulating.

Since 2004, ELSI volunteers have conducted a Community Fish Monitoring Program in the main creeks that flow into Esquimalt Lagoon. The goal of the program is to determine the types of fish that use the creeks, assess the restoration potential of the creeks and note any changes. Monitoring has confirmed that there are resident populations of cutthroat trout throughout Bee Creek and Colwood Creek and Coho salmon in Colwood Creek and Bee Creek.

MBS and Bird Disturbances

Throughout 2009, ELSI continues to work with the Canada Wildlife Services (CWS), which regulates and manages Migratory Bird Sanctuary (MBS), to achieve a balance between protection of the migratory birds and recreational uses of the lagoon. In late 2009 CWS created Wildlife Refuge Areas within the lagoon to add increased voluntary protection to the birds. This year also saw dog-on-leash signs put up around the lagoon for City of Colwood's new bylaw on the Coburg Peninsula which conforms with the federal MBS regulations. For both these initiatives ELSI conducted public outreach including a stakeholders meetings and provide information through local papers, ELSI website and posters at the lagoon.

Children and adults alike learn first hand how a watershed works at the Fort Rodd Hill Canada Day celebration.





Bridge at Esquimalt Lagoon is under threat due to erosion.



City of Colwood placed dog-on-leash signs on the Coburg Peninsula.

Interim Management Guidelines for Coburg Peninsula

Due to the storm surges causing continued erosion in 2009, the bridge remained the focus of concern. ELSI, continued to work with the Colwood staff in order to address erosion issues that are threatening infrastructure while ensuring that ecological and cultural values are preserved.

In February 2007, the City of Colwood adopted the Interim Management Guidelines (IMG) for the Coburg Peninsula, the barrier spit that encloses Esquimalt Lagoon and appointed ELSI as the IMG Implementation Advisory Committee. In this role, ELSI moved the IMG forward by working with Colwood staff to develop a five year implementation strategy, identify budget

items and embark on coordinated activities. Implementation activities have included dune habitat restoration, discussions with key parties on protection of wildlife habitat, development and placement of bylaw signage, amenities for the public and providing information to Colwood Engineering Department on the important role the process of sediment transport plays in maintaining the peninsula and the safety of the bridge.

Land Use and Development

ELSI continued actively promote environmental stewardship-based land and water use practices with developers of Aquattro and Essencia, two major projects occurring directly adjacent to the Esquimalt

Lagoon. Essencia a 4.7 hectare property with a proposal for a "eco village" with high density residential/hotel and commercial development. Aquattro is a current 11 hectare high density development of which over just under 200 units of the total proposed 660 units, have been completed. The Aquattro development also includes a diversion and enhancement of fish barring Selleck Creek. ELSI also provided input into Royal Roads University (RRU) Sustainability Plan and provided input into their development plans for new buildings and a wetland restoration project.



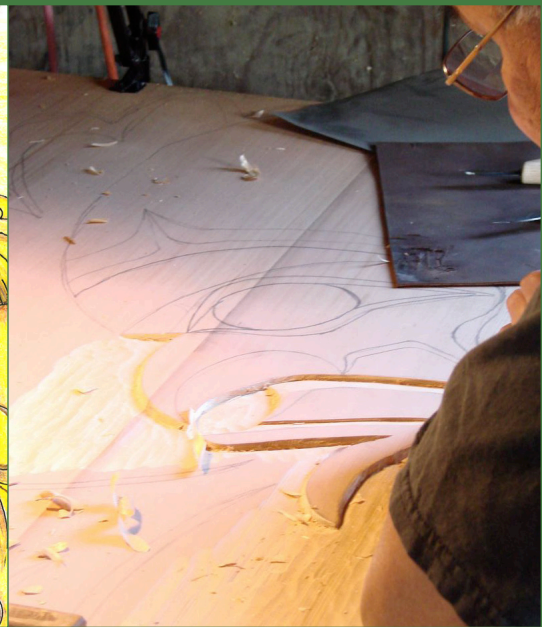
Thank you!

Many thanks go to the dedicated volunteer members of ELSI and the community who gave many hours of their time to help accomplish the major projects undertaken in 2009:

- ELSI Community Fish Monitoring
- Stakeholder and public information meetings regarding Wildlife Refuge Areas at the lagoon
- Speaker Series

Special thanks to:

1. Our partner Royal Roads University, who donated venues for events held by ELSI throughout the year
2. Students and professors from Camosun College Environmental Technology Program who gave their time



Artist Butch Dick, of Songhees Nation, sketch of the Lkwungen mural (left). Butch Dick carving the mural to be placed at Esquimalt Lagoon (right).

Honouring the Peoples History

The Esquimalt Lagoon has been an important site for First Nations peoples for centuries, both as a traditional home and as a special destination for spiritual being and gathering recourses. It is also a significant site of European colonial contact and settlement. Over the years there have been disturbances caused to very significant archaeological sites which have

not been properly respected by honouring with apologies and traditional ceremonies.

With funding from the BC Ministry of Tourism, Culture and the Arts, ELSI has been working with Esquimalt First Nation, Songhees First Nation, City of Colwood and other ELSI partners to honour the area. ELSI was able hire Songhees artist Butch Dick to create a large carved cedar mural for the lagoon, to honour ancestor that where disturbed. ELSI

goal is to help facilitate the needed dialog around the issue. The funding is also going to the development of two interpretive signs to highlight the Colonial and First Nations significance of the lagoon area. The signs and mural will be installed at the lagoon in 2010.

For more information, contact:

ELSI Coordinator

T 250.360.3299

F 250.360.3254

info@elsi.ca

625 Fisgard Street

PO Box 1000

Victoria, BC V8W 2S6



What's Next?

In 2010, ELSI will focus on:

- Working with First Nations to complete the First Nations Interpretive Sign and Mural
- Completion and placement of mural and two interpretive signs
- Monitoring the pilot dune habitat restoration project
- Continuing ELSI's water quality and fish monitoring programs
- Working with our partners to improve water quality in the lagoon, and investigating nutrient sources entering the lagoon and its tributary creeks
- Advising and working with the City of Colwood on implementation of the IMG
- Continue to provide input to the development plans of Aquattro and Essencia