

Esquimalt Lagoon Stewardship Initiative

Year in Review 2020/2021



Capital Regional District

The Esquimalt Lagoon Stewardship Initiative (ELSI), supported by the Capital Regional District (CRD), is a coalition of community and environmental groups, institutions, governments and First Nations working together to protect, enhance and restore Esquimalt Lagoon and Coburg Peninsula. ELSI's highlights and updates from 2020 and 2021 include:

New ELSI Partners

ELSI was pleased to welcome two new partners in 2021: CENiC (Citizen's Environmental Network in Colwood) and the Greater Victoria NatureHood.

Colwood's Waterfront Stewardship Plan

The City of Colwood provided two presentations to ELSI on the draft Waterfront Stewardship Plan. ELSI partners were able to provide feedback and suggestions to the City and its consultant.

European Green Crab Monitoring

ELSI volunteers worked with the DFO's Aquatic Invasive Species program to monitor the lagoon for invasive European Green Crabs (EGCs), which were detected in the lagoon in 2019. Fortunately, no EGCs were found in either 2020 or 2021. The June 2021 sampling helped to celebrate the UN Decade for Ecosystem Restoration during international Make a Difference Week. In total, ELSI's EGC monitors volunteered for approximately 100 hours in 2021.

Bee Creek Fish Monitoring

The Bee Creek Fish monitors were busy between May and October of 2020 and 2021. Fish were monitored at 6 sites along Bee Creek on a monthly basis. Volunteers found consistent numbers of cutthroat trout between 2020 and 2021, despite 2021's bridge construction and extreme weather. A single coho salmon fry was identified in 2020. The small group of dedicated fish monitors volunteered a total of 250 hours in 2021.

Water Quality

CRD staff collect water quality data annually from Colwood, Bee and Selleck creeks and a selection of stormwater flows that discharge into Esquimalt Lagoon. In 2020 and 2021, staff assessed eleven stormwater discharges in the lagoon. Results showed low bacterial counts (1 to 200 *E.coli* /100 mL) in eight of the discharges and a single elevated bacterial count (greater than 200 *E.coli* /100 mL) in three of the discharges. Discharges with an elevated count included Bee and Selleck creeks and a discharge closer to the toe of the lagoon. Subsequent samples in all discharges had low *E. coli* counts. CRD staff assigned low public health concern ratings to all discharges assessed and continue to monitor the creeks and discharges that had elevated counts.

Water quality data in Bee and Selleck creeks indicated that these creeks are healthy, relative to other CRD urban creeks, but water quality may be degrading. Physical parameters, including dissolved oxygen, pH and temperature were within guidelines protective of fish and other aquatic life (with the exception of one temperature measurement in Selleck Creek). The parameters of concern in Bee Creek included *E.coli*, nitrate, phosphorus, suspended solids and turbidity. These parameters, as well as iron and zinc, were also elevated in Selleck Creek. Temperature and nitrate measurements were similar and historical data collected by the CRD indicates that nitrite is naturally elevated around Esquimalt Lagoon.

Outreach and Education

Despite COVID-19 restrictions, ELSI partners looked for ways to provide public outreach and education regarding the lagoon and its species. The Victoria Natural History Club organized several birding walks at the lagoon, Greater Victoria NatureHood profiled the lagoon on its NatureHood map, and CENiC hosted a virtual presentation about the lagoon during its spring speaker's series in 2021.