

Cowichan/Koksilah Watershed to Sea

Protecting and Restoring Canada's Wild River
Heritage as an Integral Link to the Salish Sea

COWICHAN ESTUARY RESTORATION PROJECT



British Columbia
Conservation
Foundation





STOLTZ Bluff or bust!!!!

- **\$2,677,742 Total over 5-years**
- 100% of ask for Year 1
- 70% of ask for Years 2-5
- 3 project components
 - Estuary Restoration
 - Riparian Restoration
 - Stoltz Sediment Mitigation

Habitat Restoration in the Cowichan/Koksilah Estuary

- Understanding processes responsible for creating and sustaining habitats through sediment, velocity and salinity monitoring and hydro-geomorphic modelling
- Increase accessible and healthy habitat for Chinook salmon in the estuary including installation of a second breach structure through the Western Stevedoring causeway and restoring native eelgrass stands using an adaptive management strategy.

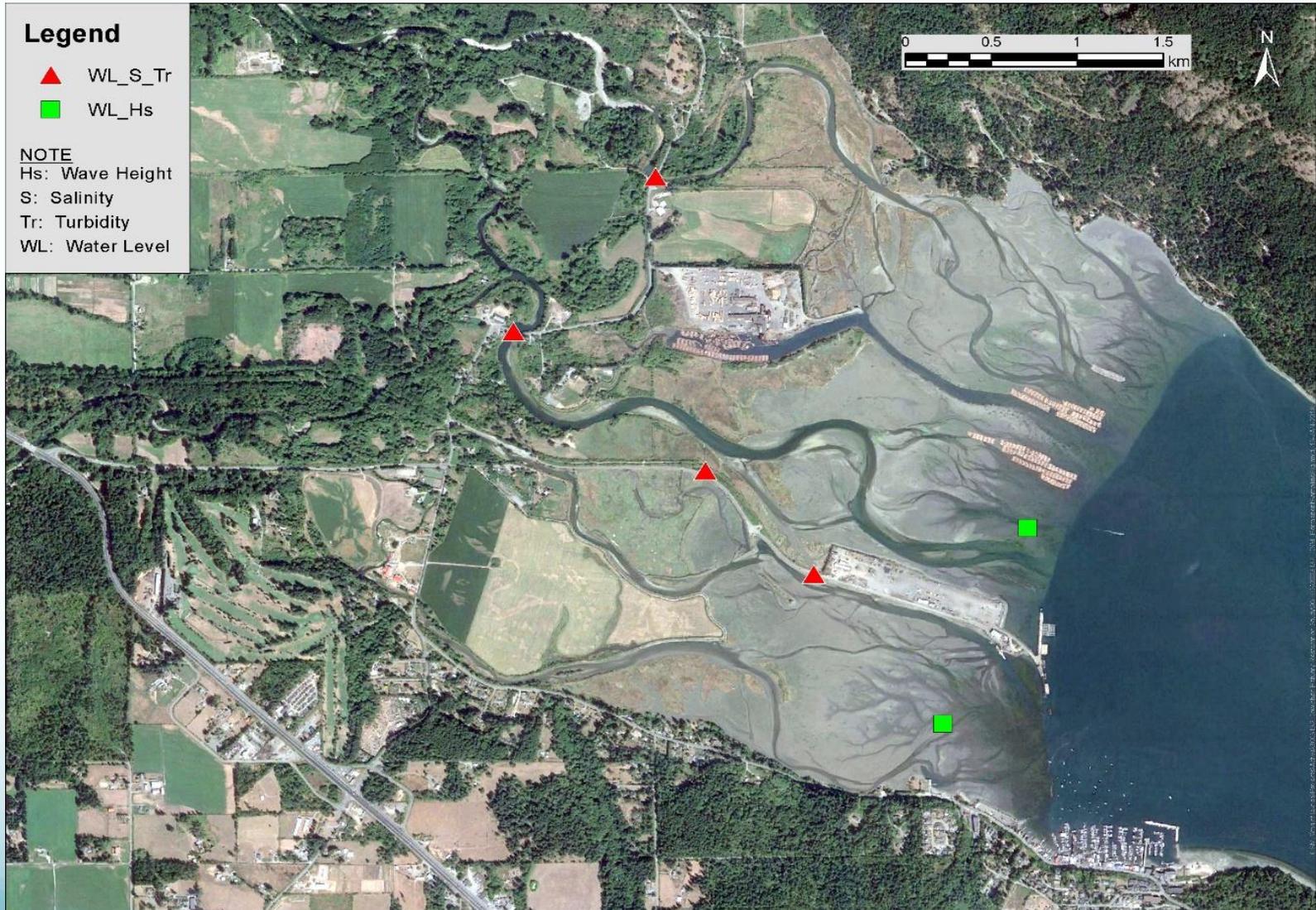
Work Plan - 2017-18- YR 1

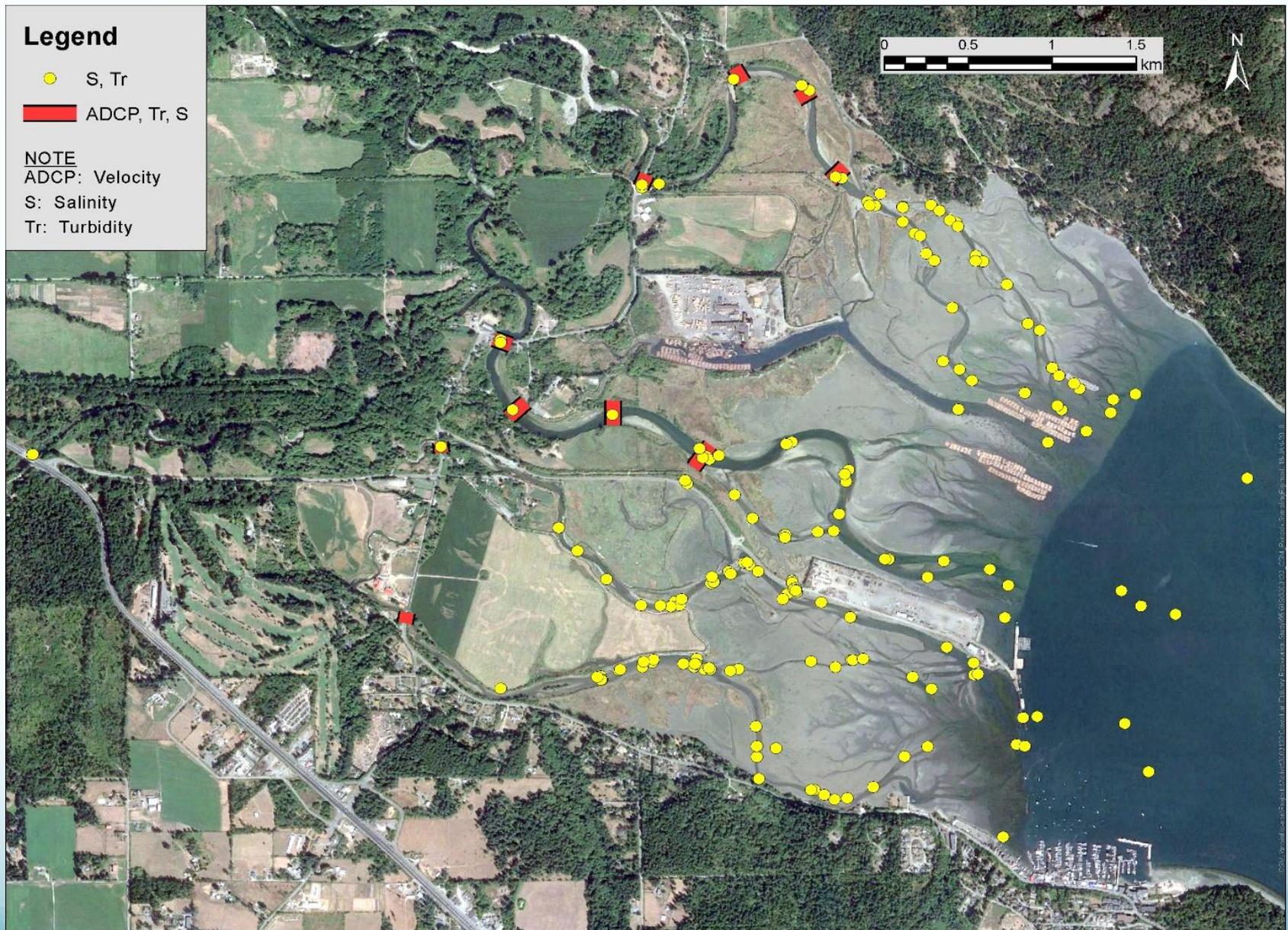
- Develop 2-D Hydro-dynamic model of the estuary
- Review geo-morphic changes to the estuary through time
- Water Quality Monitoring of salinity, temperature, velocity, turbidity and flow
- Sediment Monitoring – H₂S – in partnership with SFU
- Engineering designs to 1) increase flow through first breach if possible; 2) alignment and design of second breach of WSD Causeway
- Archaeological Overview Assessment
- Complete/Update CERCA Habitat Map and develop database
- Develop and implement the monitoring plan

Phase 1 and Phase 2 Breach Design



Monitoring





Location of periodic hydraulic parameter monitoring measurements

Work Plan Years 2-5

YR 2 – Permitting and authorizations, install second breach, habitat restoration (riparian, saltmarsh, increased flow through 1st breach); monitoring, suitability mapping for eelgrass restoration

YR 3 – Monitoring for fish utilization of Phase 2 breach; water quality and sediment monitoring; suitability mapping; eelgrass restoration (goal 480m²)

YR 4 - Water quality and sediment monitoring; suitability mapping; eelgrass restoration (goal 600m²)

YR 5 - Water quality and sediment monitoring; suitability mapping; eelgrass restoration (goal 840m²)

Collaboration

- Established a Technical Committee – all the local players involved in the estuary that will meet 1 time per year to foster collaboration, provide synergies and ensure no duplication
- Technical Working Group – core group of experts to guide the technical aspects of the project
- Steering Committee – Cowichan Tribes, BCCF and SeaChange – project oversight
- Looking for ways to increase collaboration: CWB Estuarine Health Target, Salish Sea Survival Project, university research

Other Cowichan CRF Components

Restoring the Cowichan-Koksilah's Riparian Greenway Future

- Goal is to achieve an annual aggregate target of 1,000m² in year one and 5,000 m² each year after of restored riparian habitat in the Cowichan and Koksilah watersheds, to significantly increase the quality and availability of prime juvenile salmonid rearing habitat.
- This will be achieved by systematically identifying and restoring disturbed/impaired riparian vegetation.

Stoltz Bluff Sediment Remediation to Reduce TSS impacts on Chinook and other salmonids in the Cowichan River

- Reduce the opportunity for a large sediment risk (approximately 1000 tandem dump-truck loads of silt, sand and clay each year) to enter the Cowichan River and therefore decrease the productivity of spawning salmonids.