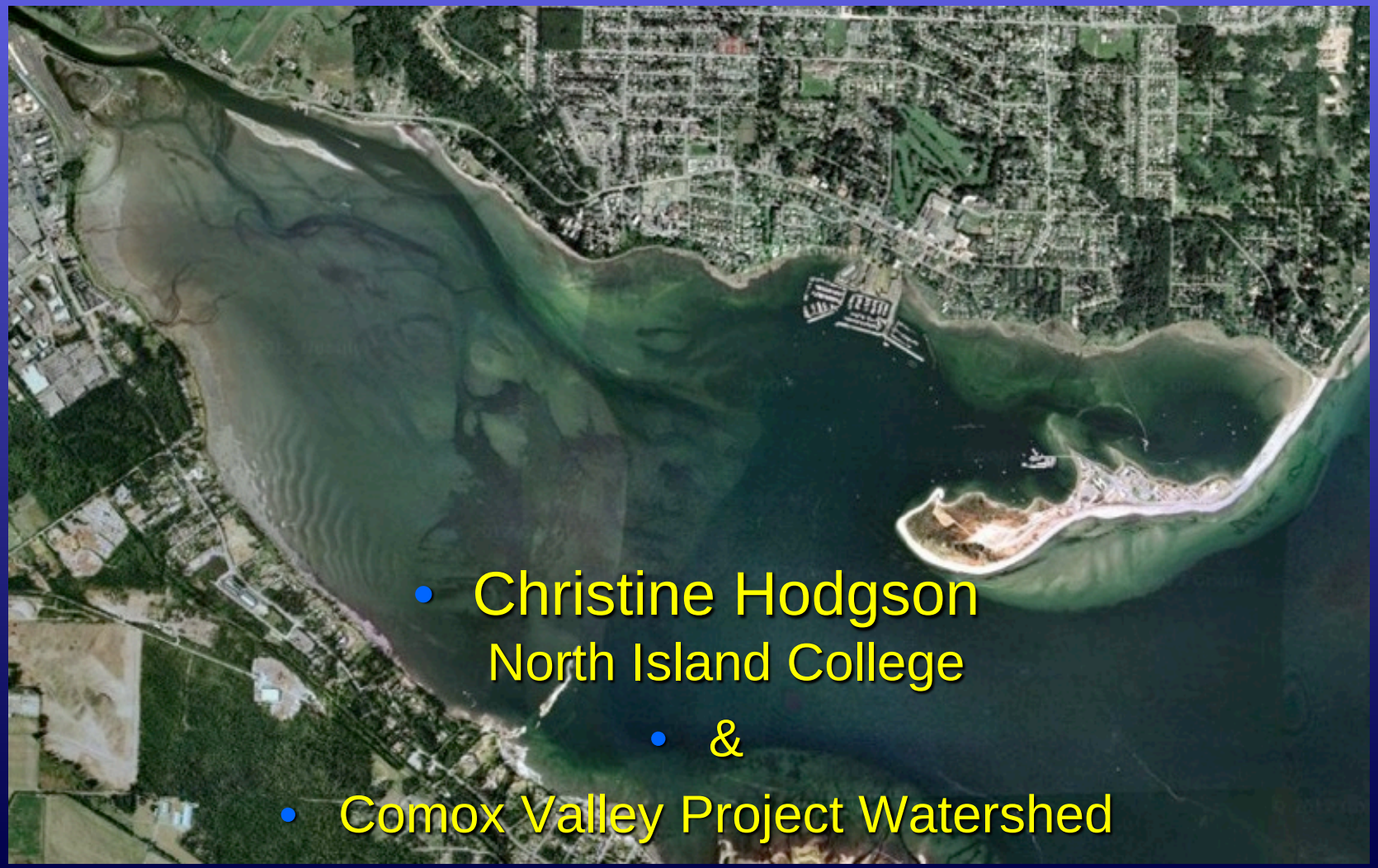
The K'omoks and Squamish Estuaries: A blue carbon pilot project



- Christine Hodgson
  North Island College
- &
- Comox Valley Project Watershed

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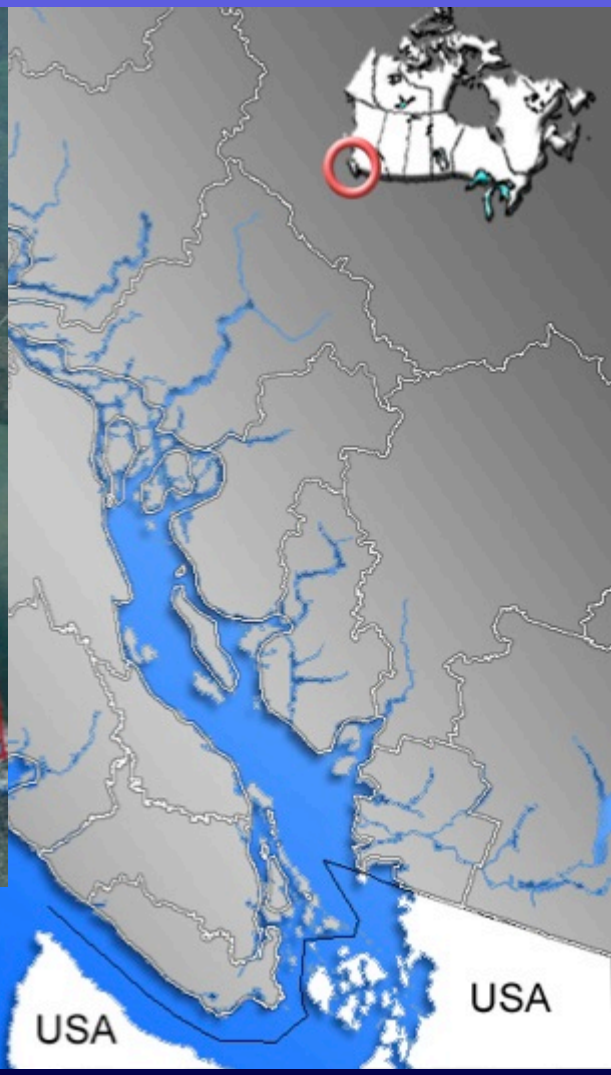
K'omoks Estuary, British Columbia, Canada



Goals for NAPECA Grant

- Develop a simple protocol for estimating stored carbon in eelgrass and salt marsh habitats
- Quantify the amount of carbon stored in these habitats as a measure per square area.
- Develop a protocol suitable for NGO's in other localities to quantify existing stored carbon and opportunities for increasing carbon storage through eelgrass and salt marsh restoration.

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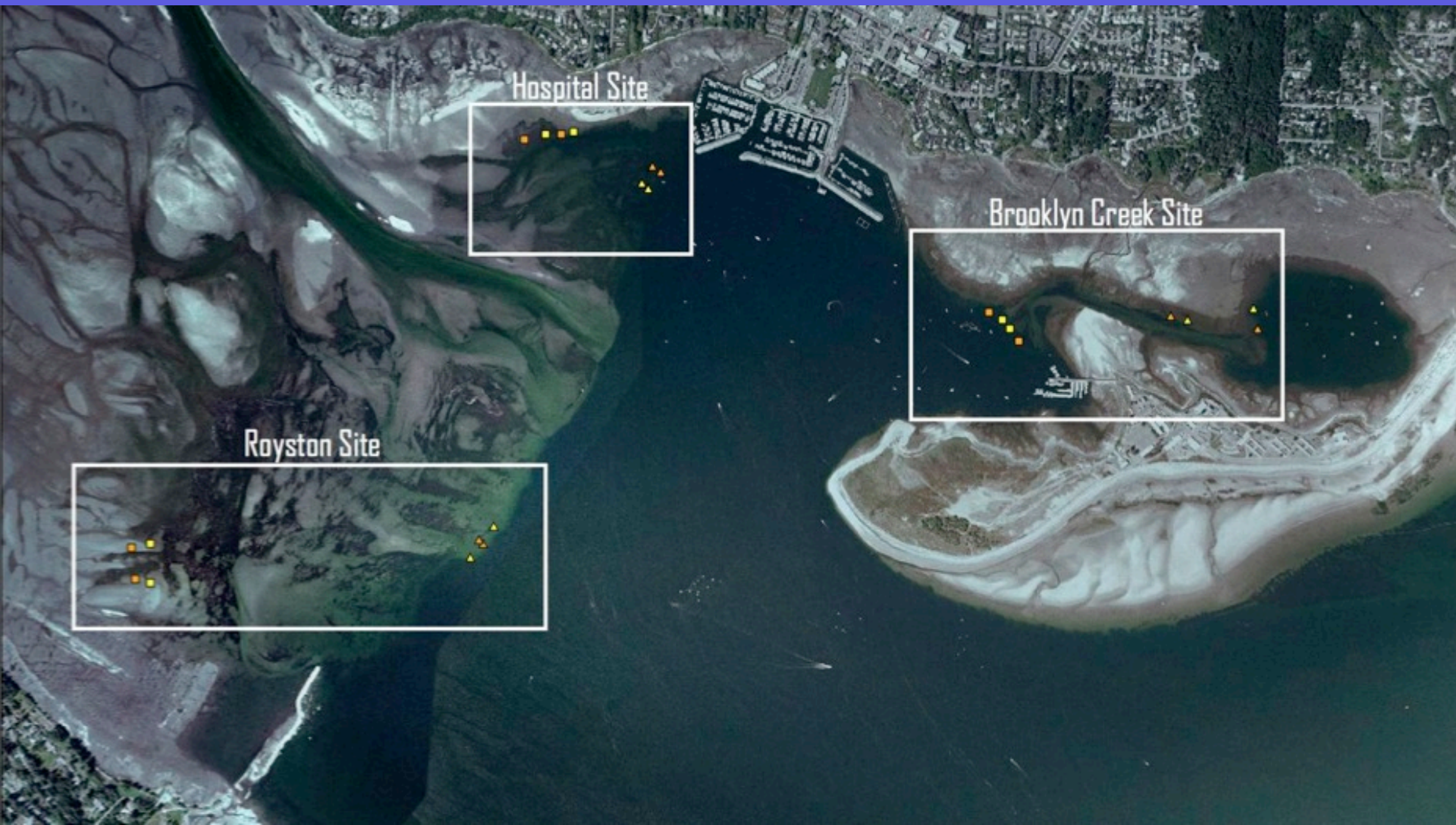
Study Sites



Collect Sediment Cores

- Is there a difference in amount of carbon stored in sediments below a barren or vegetated area?
- Coring with IOS team, May 21, 2014

Collect Sediment Cores

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Collect Sediment Cores

Sediment Analysis

- **Below Ground C sequestration**

- Total Carbon – TOC, TIC, sediment size, organic matter
- Burial rate – use ^{210}Pb
- Accumulation of C due to vegetation and associated fauna – use stable isotopes ^{13}C and ^{15}N
- Extrapolate C deposition based on eelgrass cover density

Sediment Analysis

- Shallow Cores (about 50 cm)
- Total of 32 additional cores collected
- Replicate samples – Carbon below SML
- May be used for stable isotope analysis

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Habitat Restoration

Habitat Restoration

- 95% survival rate
- Increase in number of shoots per group

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