

Community Stream Mapping

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Why Mapping?

- ▶ Many small and medium-sized watercourses are either mapped incorrectly or not at all.
- ▶ Our goals as registered professional biologists:
 - ▶ to assist community groups to develop capacity,
 - ▶ to help conduct stream mapping,
 - ▶ and to conduct fish habitat assessment works
- ▶ Outcomes:
 - ▶ Protect riparian & aquatic habitats,
 - ▶ Help landowners, developers, and district planners make better decisions



Goals - Stream Mapping

- ▶ Map or remap systems that have not been assessed in 20-50 years
- ▶ Apply Sensitive Habitat Inventory and Mapping (SHIM) methods (provincial standards)
- ▶ Identify previously unidentified tributaries, channelized streams, and fish ditches (small streams)
- ▶ Provide GIS data to the Province and Municipalities to allow better decision making



Goals – Fish Habitat Assessment

- ▶ Assess existing habitat values
- ▶ Observe impacted or under performing riparian habitats
 - ▶ Opportunities for Enhancement Projects
- ▶ Assess low flow refuge habitat
- ▶ Observe water withdrawals



Goals – Health Check



- ▶ Assess stream health and collect baseline data
- ▶ Allows for future monitoring and assessment for:
 - ▶ Climate Change
 - ▶ Forestry
 - ▶ Urban Development
- ▶ Allows for adaptive responses to the current and future health of our waters.
- ▶ Follows the path of environmental stewardship



The Real Reason

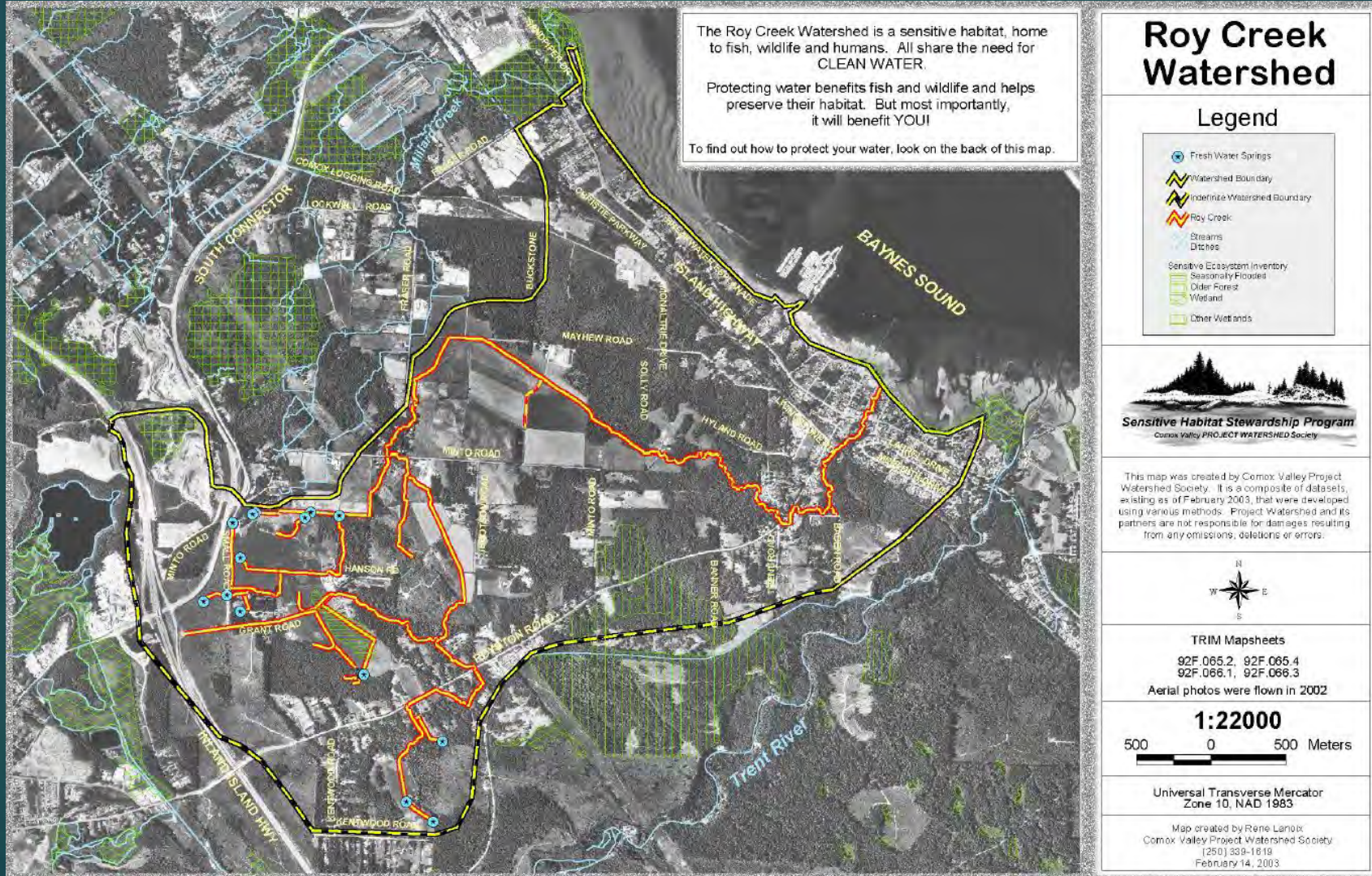


Community mapping aligns with Municipal goals

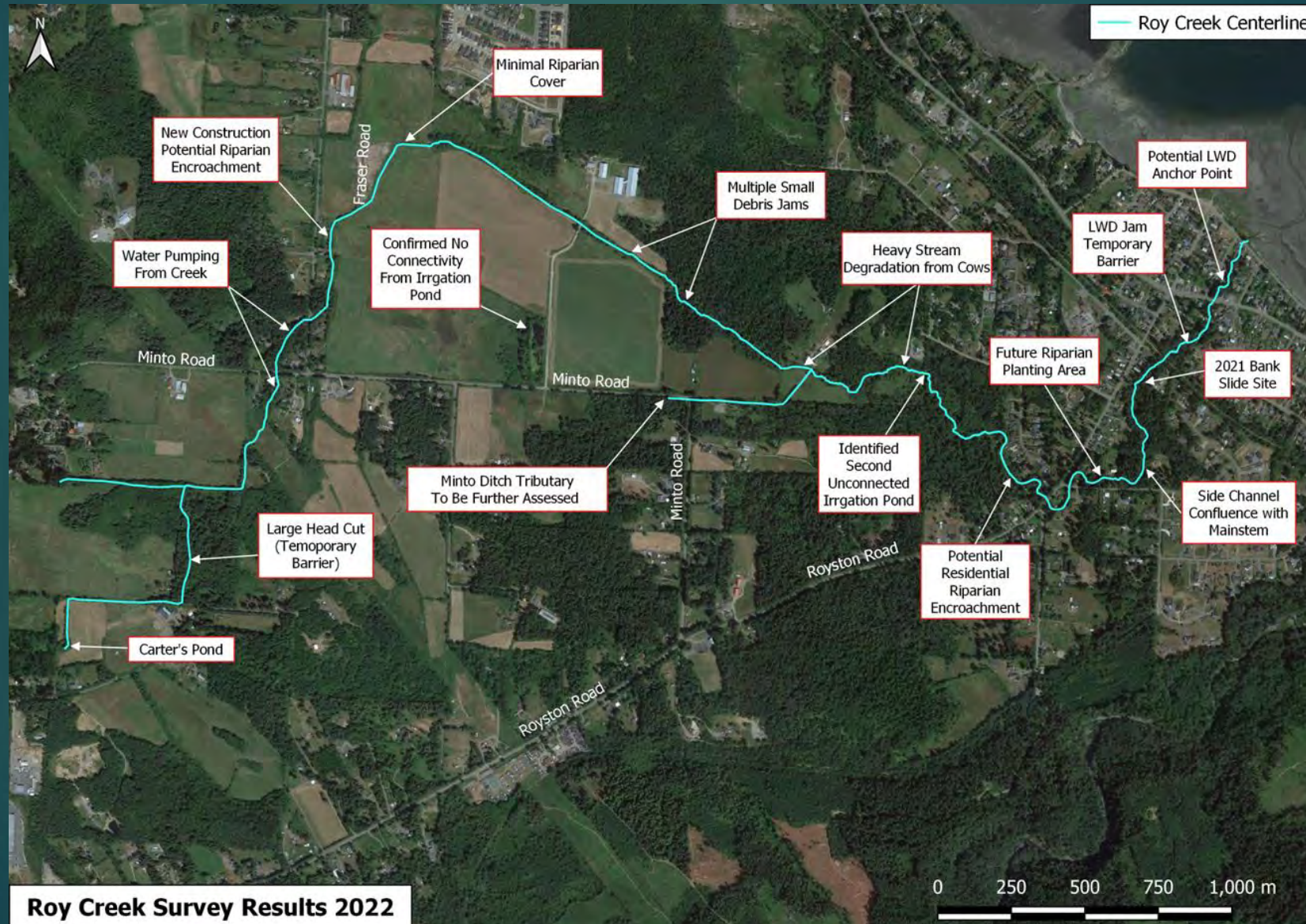
- ▶ RDN's Drinking Water and Watershed Protection Program, "... (to) protect, manage and restore ecosystems and the overall health and functioning of our watersheds and aquifers."
- ▶ CVRD's Strategic Priority, "...to reduc(e) our impact on the environment and accelerat(e) our actions to adapt and respond."



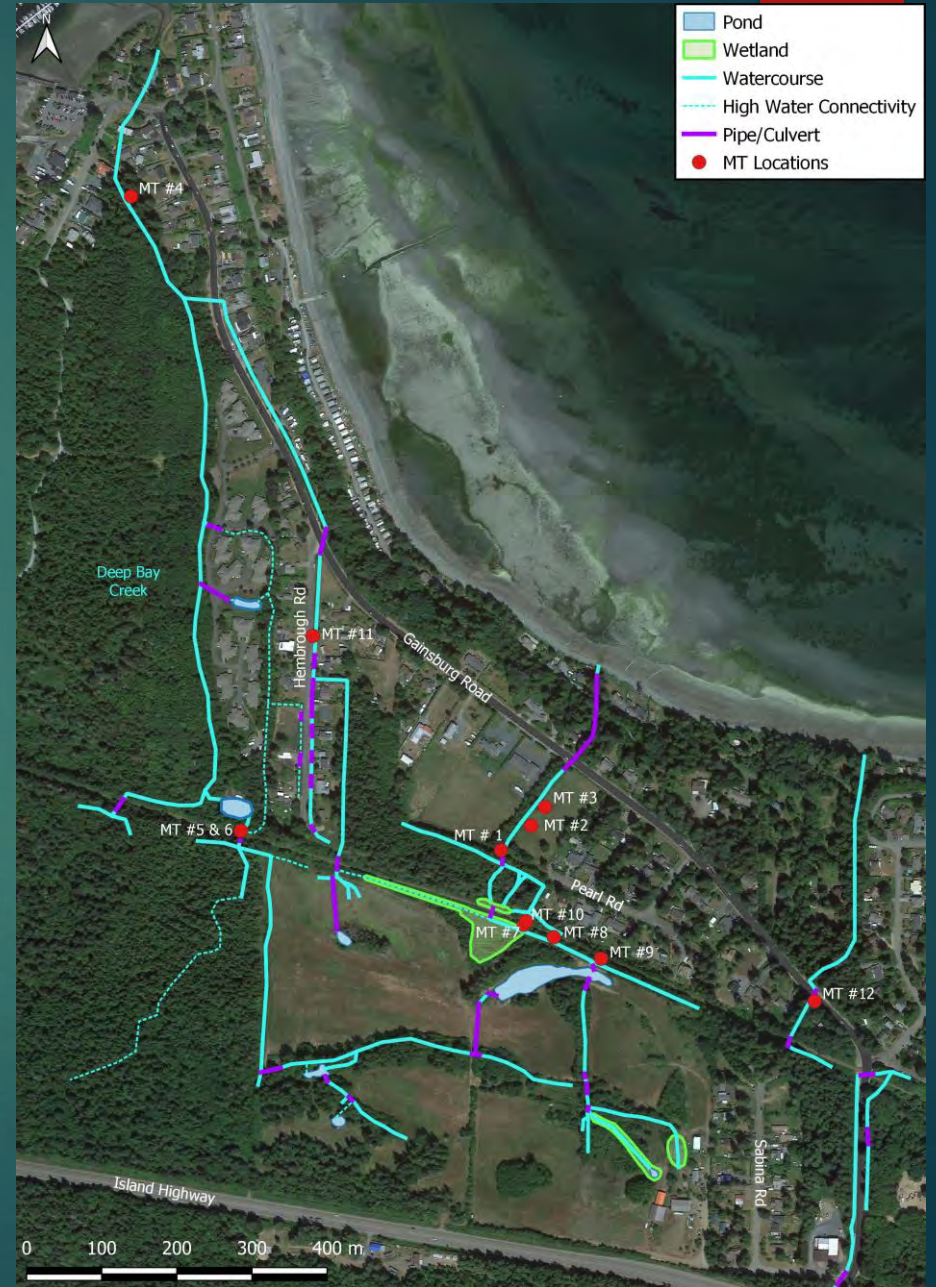
Previous Projects - Roy Creek



Previous Projects - Roy Creek



Previous Projects - Deep Bay Creeks



Mapping Proposal – Apple-Cherry Creek

- ▶ Locate/add unmapped tributaries of stream systems for added protection
- ▶ Identify water withdrawal areas
- ▶ Identify barriers to fish access
- ▶ Identify areas for future enhancement opportunities
- ▶ Health checks and establish baselines for climate change monitoring



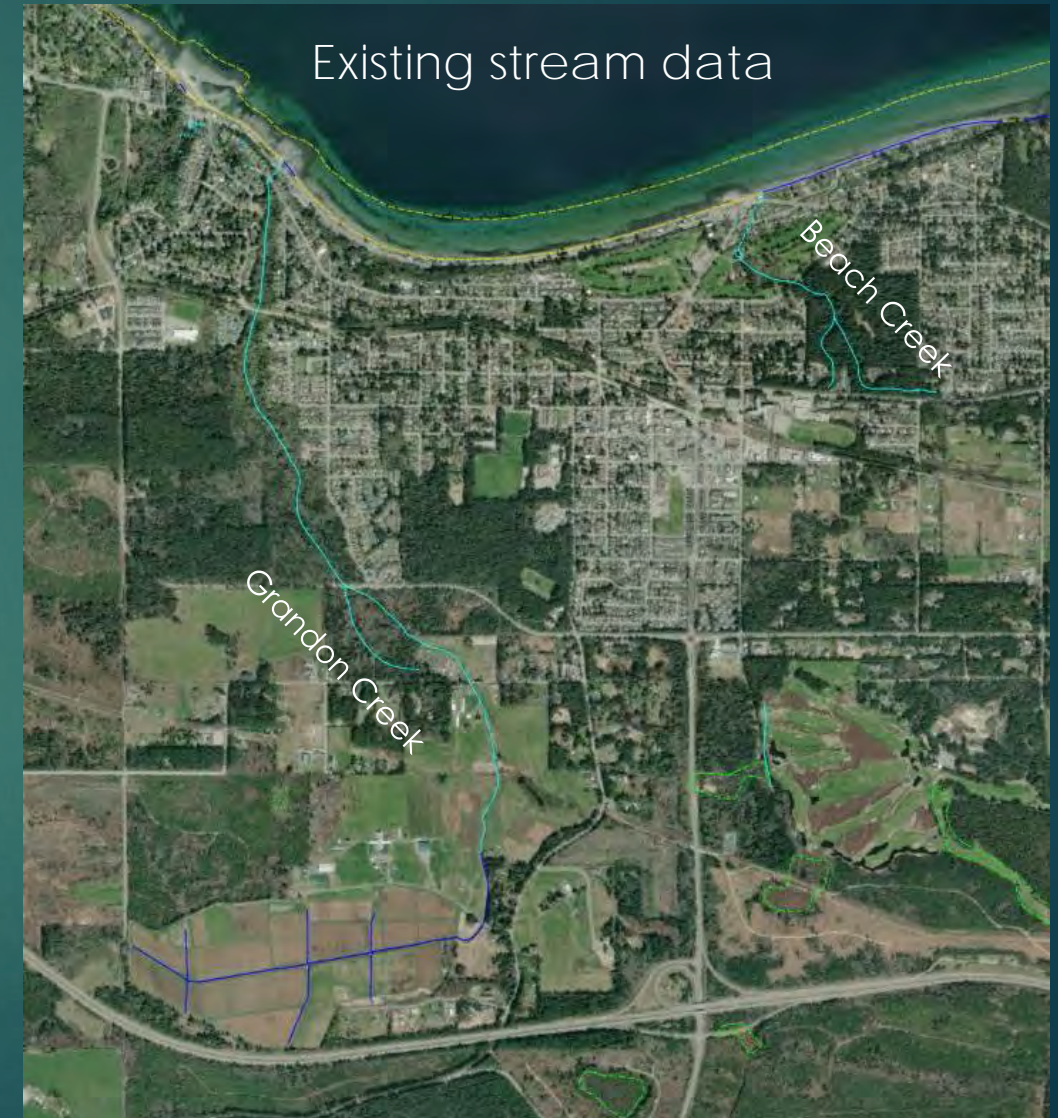
Apple-Cherry Creek





Mapping Proposal – Beach & Grandon Creeks

- ▶ Locate/add unmapped tributaries of stream systems for added protection
- ▶ Identify impacted/underperforming riparian habitats
- ▶ Assess low summer flow refuge habitat for cutthroat trout and coho salmon populations
- ▶ Assess existing habitat values (spawning habitat, cover, etc.)
- ▶ Identify areas for future enhancement opportunities

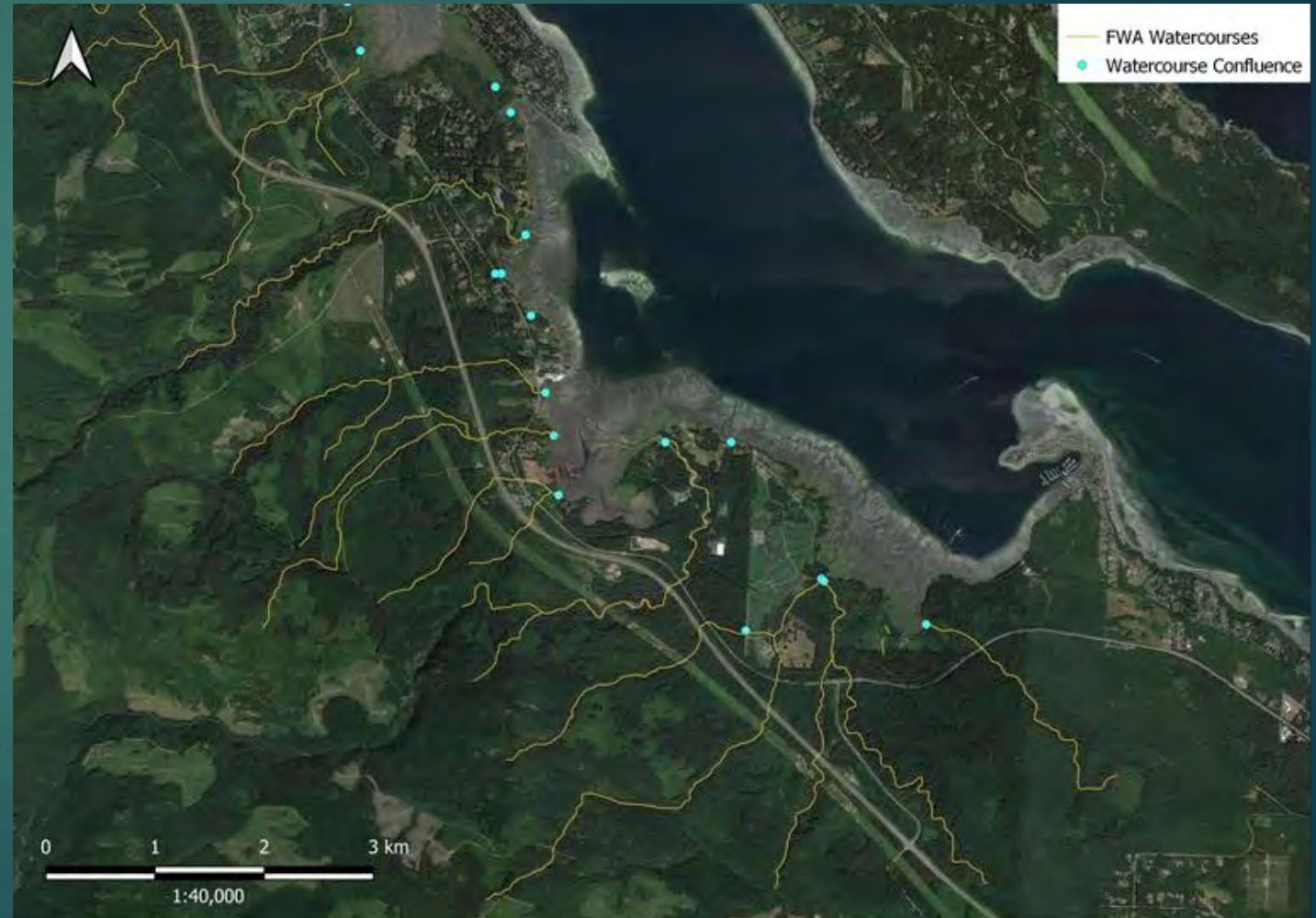


Mapping Proposal – CVRD Creeks



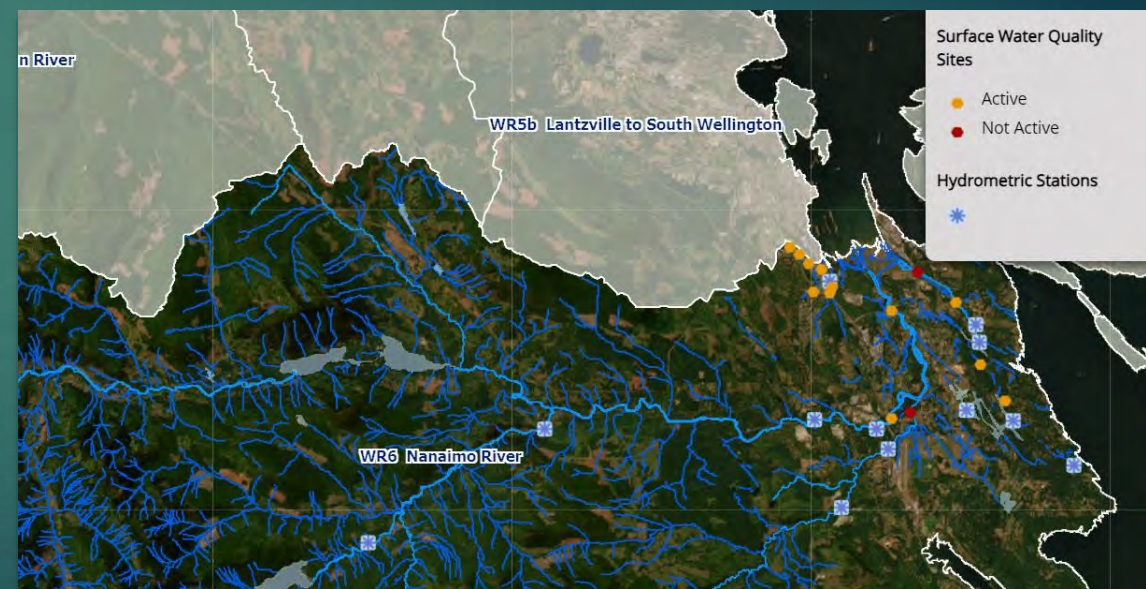
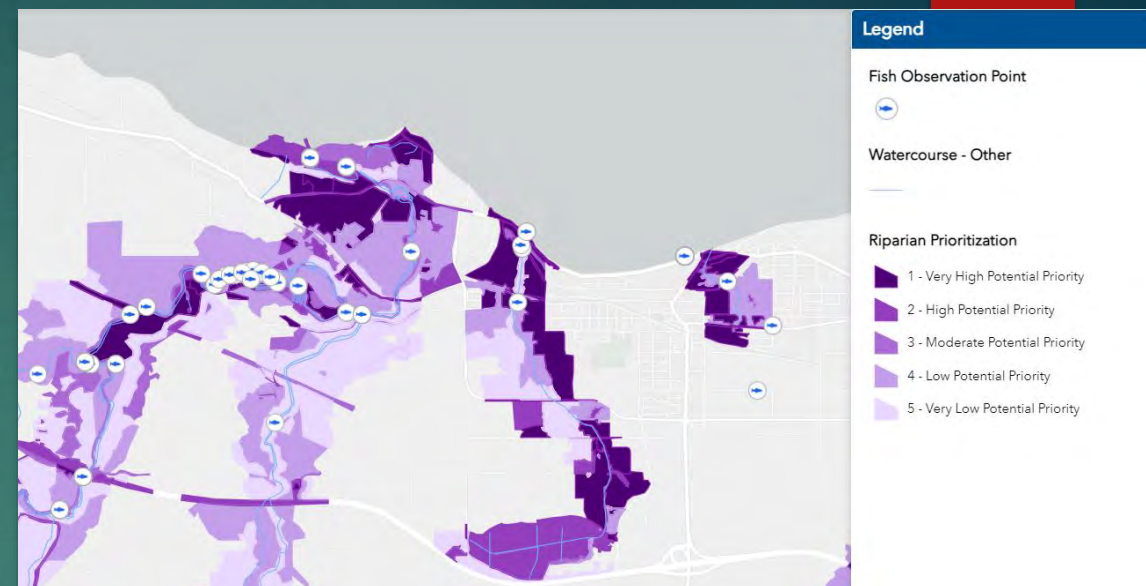
Detailed ground-truth mapping of the following creeks:

- ▶ Wilfred Creek (~1,800 m)
- ▶ Ackinclose Creek (~950 m)
- ▶ Steele Creek (~970 m),
- ▶ Waterloo Creek (~725 m)
- ▶ Mud Bay Creek (~750 m)
- ▶ Unnamed creek, a local name of Dyre Creek (~585 m)

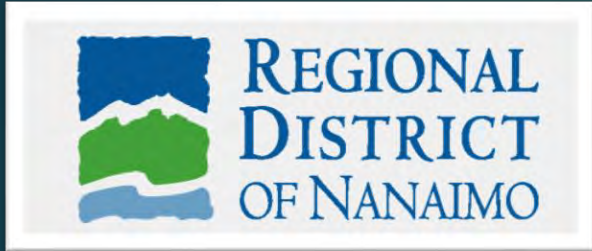


RDN projects

- ▶ Drinking Water and Watershed Protection program (DWWP)
- ▶ Riparian Spatial Analysis for Restoration Prioritization mapping (RSAR) →
- ▶ RDN Water Regions Map →
- ▶ Community Watershed Monitoring*



Current & Potential Partnerships



Where next?

