FRASER VALLEY WATERSHEDS COALITION

YEAR IN REVIEW 2018

The Fraser Valley Watersheds Coalition (FVWC) is a registered charity made up of individuals, groups, agencies, and First Nations. We work to promote healthy watersheds in the Fraser Valley by facilitating understanding and action in local communities.

Cover photo: Tom Berry gravel pit 2018.

ABOUT THE WATERSHED PROGRAM

We believe healthy watersheds provide the foundation for vibrant healthy communities.

Formed in 2005, the Fraser Valley Watersheds Program is a partnership between the Fraser Valley Regional District (FVRD) and the Fraser Valley Watersheds Coalition (FVWC), receiving technical support from Fisheries and Oceans Canada (DFO), Resource Restoration Unit. It is a unique and effective partnership between government and non-profit society to improve the healthy of watersheds in the Fraser Valley BC. The watersheds program is funded through grants and in-kind contributions; with the goal to restore and enhance watershed values and foster increased stewardship and understandings on the importance of local watersheds. Valuing a balanced approach, the Watershed Program consists of four inter-connected Programs:

1. Habitat Restoration and Enhancement
2. Environmental Monitoring and Mapping
3. Education and outreach
4. Watershed Planning

WHY WATERSHEDS MATTER

Photo: Stave River, Mission BC. Restoring flows to a dried river channel., repairing salmon spawning habitat. Funded by Fish Wildlife Compensation Program

Social well-being & Human Health

Healthy watersheds benefit people:

- Safe drinking water
- Provides food
- Enables us to adapt to the impacts of climate change more easily by cooling the air and absorbing greenhouse gas emissions.
- Healthy forests within a watershed create the fresh air we breathe.
- Provides places for people to recreate enjoy nature such as parks and trails.

Economic Prosperity Human Health

Healthy watersheds benefit society:

- Produce energy and water supply for agriculture, industry and households.
- Forests and wetlands help to prevent or reduce costly climate change impacts. This can include mitigating flooding , reducing drought and forest fire potentials.
- Contributes to tourism, fisheries, forestry agriculture and mining industries.

Ecological Health Human Health

Healthy watersheds benefit nature, natural processes and biodiversity:

- Conserves water, promotes streamflow, supports sustainable streams, rivers, lakes and groundwater sources.
- Enables healthy soils for crops and livestock.
- Provides habitat fro wildlife and plants (including pollinators needed for agriculture).

2018 AT A GLANCE

Financially Responsible:

We received $687,492 in grants and service contracts for project based activities to support on-the-ground actions towards conservation and biodiversity.

A coalition for conservation, we are growing roots in our communities.

Many thanks to our volunteers and donors, whom without, our efforts would not be as significant.

Digging In –taking actions to restore local biodiversity and watersheds.

In 2018 we:

- Planted 13,152 individual native trees and shrubs.
- Created and restored 11,273 m^2 salmon habitat.
- Had 184 volunteers lend us their hands.
- Employed 2 full-time employees and 4 part-time field staff.

THANK YOU PARTNERS

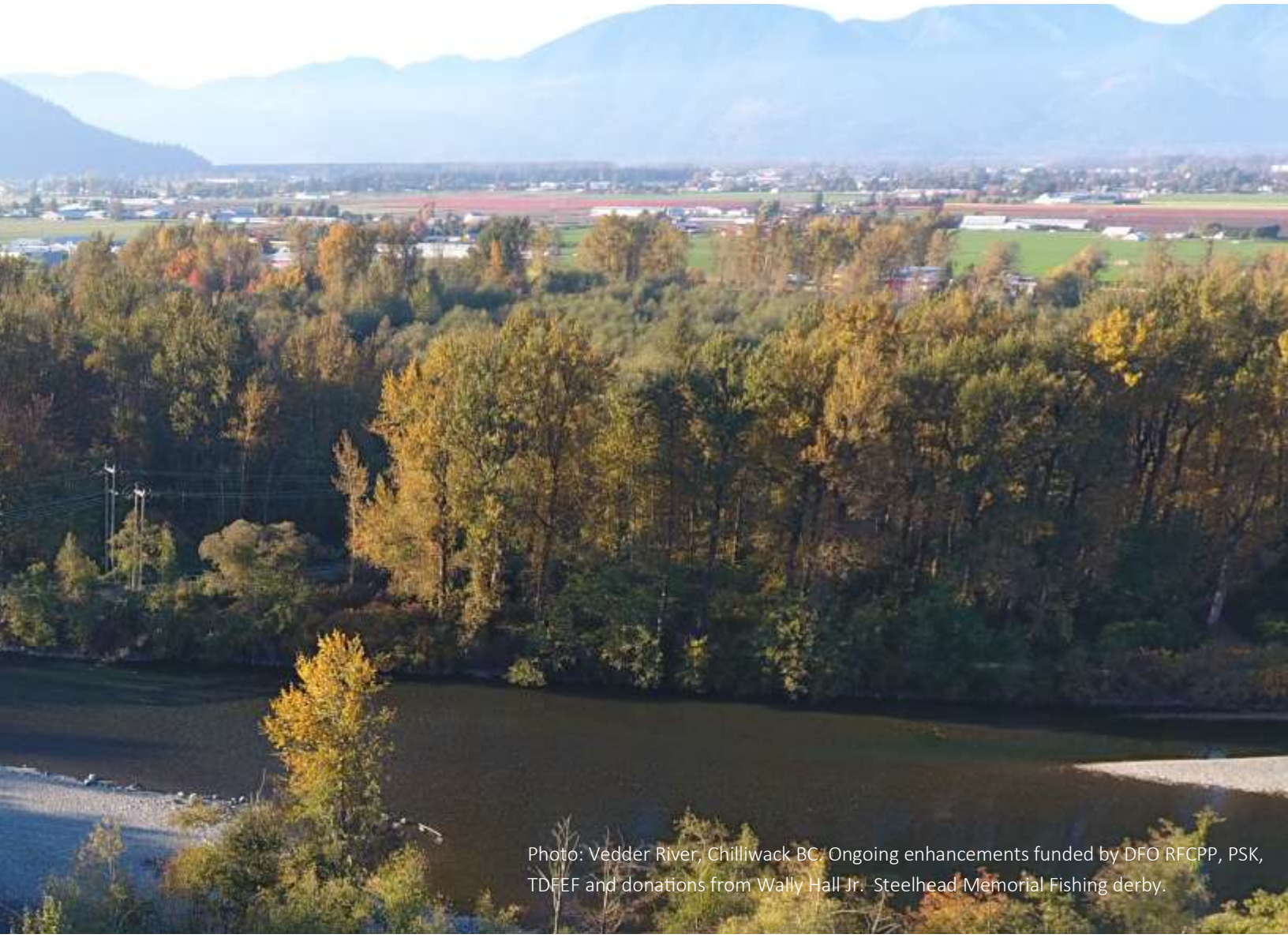


Photo: Vedder River, Chilliwack BC. Ongoing enhancements funded by DFO RFCPP, PSK, TDFEF and donations from Wally Hall Jr. Steelhead Memorial Fishing derby.

FWCP Fish & Wildlife Compensation Program

Canada

Experience the Fraser

National Conservation Plan

British Columbia

Pacific Salmon Foundation

Kwantlen First Nation

Seyem' Qwantlen Business Group

Mission Streams

Fraser Valley Conservancy — Placing lands in trust for our future

HOPE British Columbia

District of Kent — Agassiz

Abbotsford Parks, Recreation & Culture

University of the Fraser Valley

Mission on the Fraser

Fraser Valley Regional District

City of Chilliwack

Chilliwack Fish & Game Protective Association

Ducks Unlimited Canada

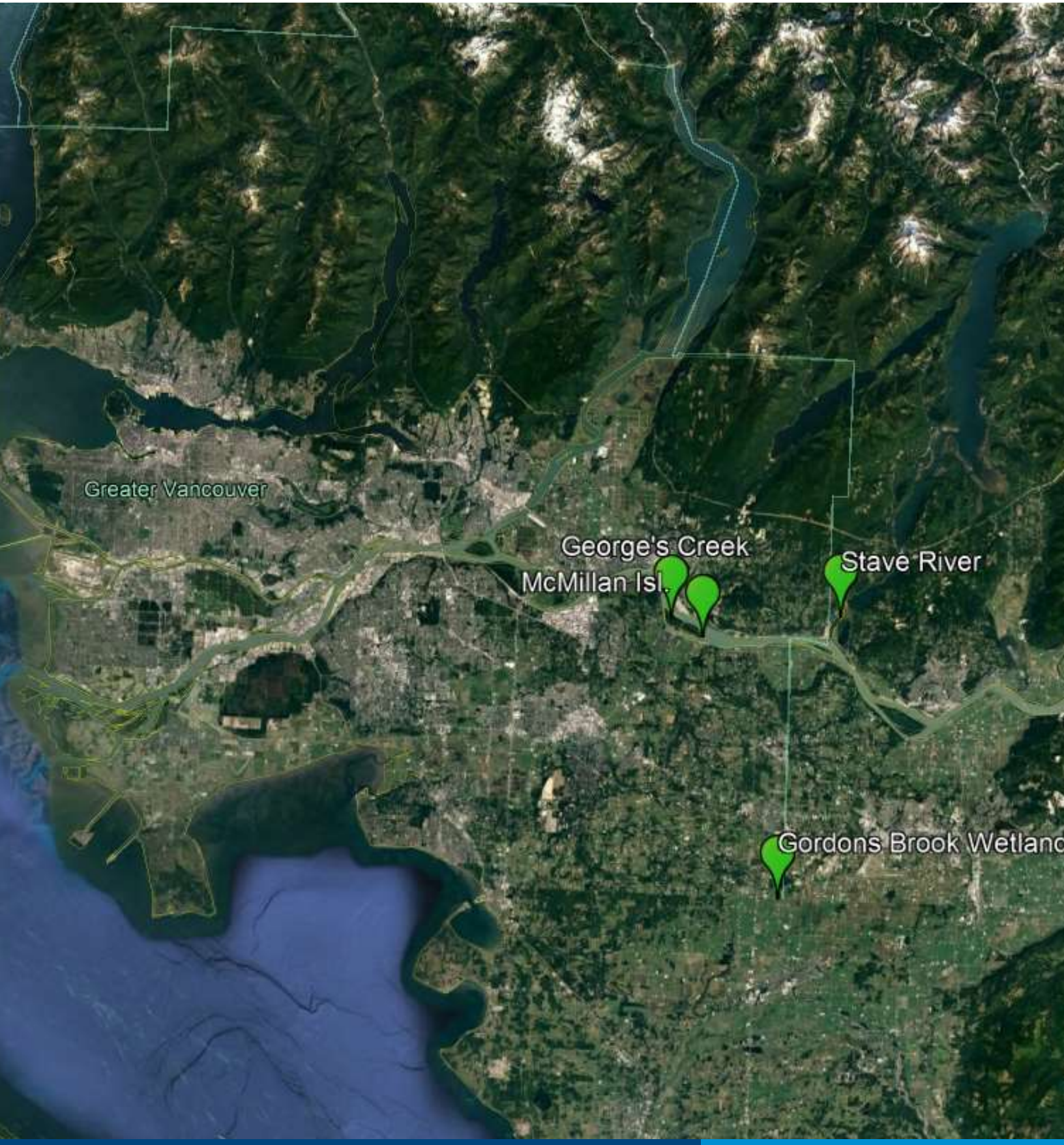
Fred's Custom Tackle

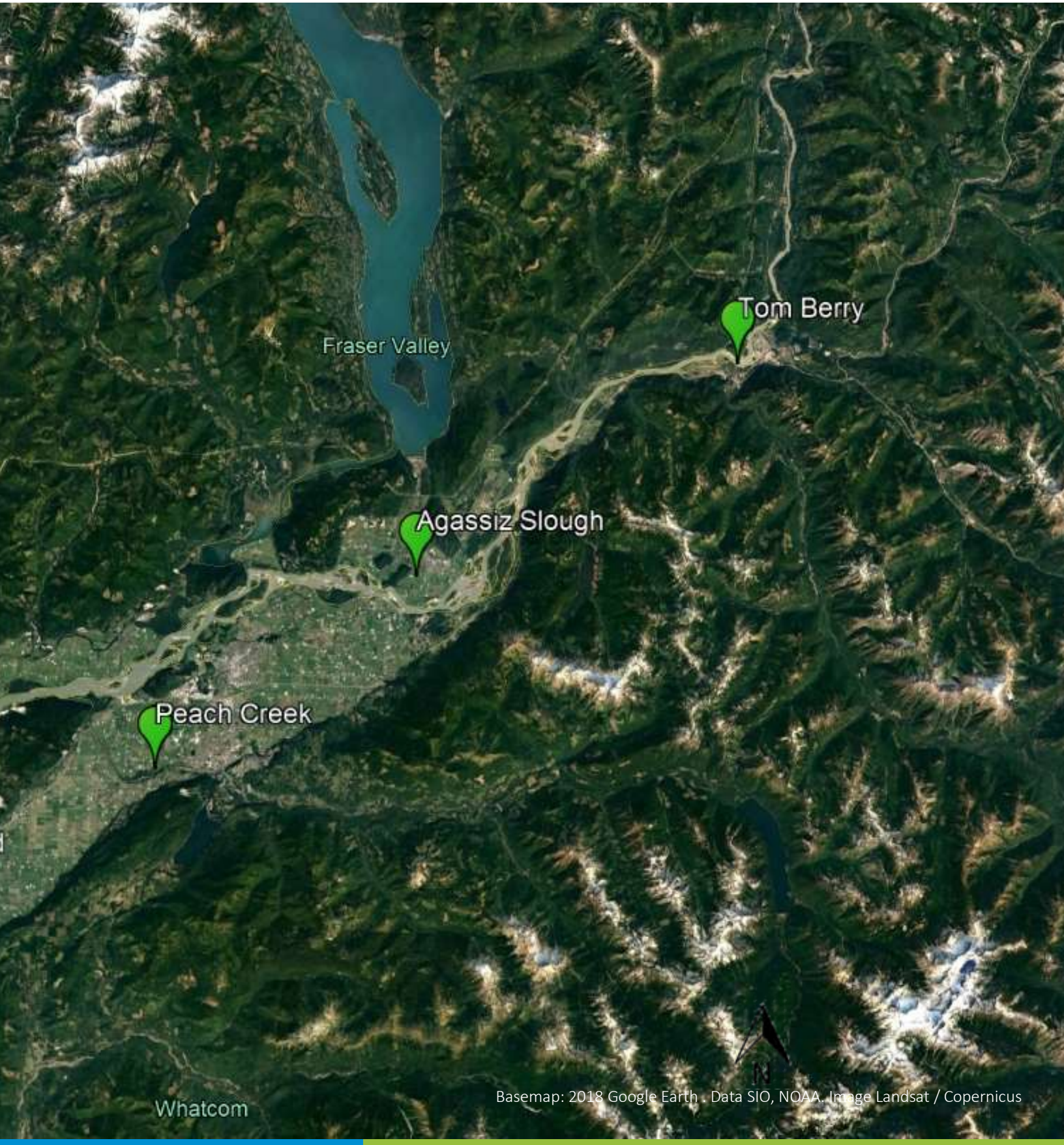
Fisheries and Oceans Canada

Hope Mountain Centre for outdoor learning

Salmonid Enhancement Program

2018 PROJECTS ACROSS THE REGION




Tom Berry
Fraser Valley
Agassiz Slough
Peach Creek
Whatcom
N
Basemap: 2018 Google Earth . Data SIO, NOAA. Image Landsat / Copernicus

2018 PROJECTS

STAVE RIVER, MISSION

Project Summary: The purpose of this project is to continue building on efforts from previous years to restore and create off-channel habitats within the lower 2km for all pacific salmon. In addition, sections of the Stave River had become de-watered and caused the desiccation and loss of salmon redds and spawning habitat. These changes in the river also caused the increased erosion of a culturally important site on the right bank. Work involved re-watering these dried channels and constructing a pilot erosion stabilization structure to limit further erosion and still provide salmon habitat features.

Project Goals:

1. Restore functional river hydrology in dewatered sections of the mainstem river.
2. Complete a right-bank erosion stabilization pilot project to protect culturally sensitive First Nation artifacts and provide improved salmon coverage.
3. Complete bioengineering and replanting efforts along newly created off-channel habitats.
4. Conduct water quality monitoring, fish presence surveying and sand-hill crane monitoring.

Funded by National Wetlands Conservation Fund, BC Hydro Fish Wildlife Compensation Program and **supported by** Stave Valley Salmonid Enhancement Society, Seyem Qwantlen First Nation, District of Mission, Fisheries and Oceans Canada, and Ruskin Hydro Station.

TOM BERRY, HOPE

Project Summary The purpose of this project is to reclaim the Tom Berry gravel pit to functional off-channel floodplain habitat and add biodiversity, community and First Nation values. Biologically, in its current state, the Tom Berry gravel pit strands salmon (including Chinook) in the pit and reduced the ability of salmon to complete their lifecycle and thus also impacts available forage fish in the Salish Sea for Southern Orca whale population. Work included bio-vegetation assessment and year one of construction: installing an intake for permanent flows, creation of a new channel into the pit and replanting along the bank Silverhope Creek.

Project Goals:

1. Reclaim the gravel pit (used to create the Coquihalla highway) to functional floodplain fish habitat.
2. Design restoration activities to allow permanent movement of salmon and chinook into and out of the pit.
3. Ensure designs support First Nation, cultural and community values.
4. Replant the gravel pit to support natural riparian habitat.
5. Manage invasive species encroachment.
6. Conduct water quality monitoring, fish presence surveying, vegetation assessments .

Funded by DFO Coastal Restoration Fund and **supported by** Ministry of Transportation and Infrastructure, District of Hope, AdvantageHope, Hope Mountain Centre for Outdoor Learning, Sto:lo First Nation, Fisheries and Oceans Canada, BCIT, Hope Communities in Bloom.

2018 PROJECTS

PEACH CREEK, CHILLIWACK

Project Summary: The purpose of this project is to continue enhancing and re-watering the Vedder River floodplain to support salmon habitat and create social and recreational connections for the community. Historic off-channels have been lost due to waterway constriction. Work involved excavating 1.2 kilometers of new channel from Hooge Rd. parking lot downstream. A volunteer tree planting event, monitoring for water quality and fish usage, and treatment for invasive species.

Project Goals:

1. Create a new channel connecting Peach Creek groundwater extension channel to the Vedder River.
2. Replant the newly created channels to support functional riparian areas and biodiversity.
3. Conduct water quality monitoring, fish presence surveying, vegetation assessments .

Funded by DFO Recreational Fisheries Conservation Partnership Program, Pacific Salmon Foundation, Wally Hall Jr. Memorial Steelhead Fishing Derby, and **supported by** the City of Chilliwack, Fisheries and Oceans Canada.

AGASSIZ SLOUGH, DISTRICT OF KENT

Project Summary: The purpose of this project is to continue enhancing the riparian area along Agassiz Slough to promote shading and support improved aquatic conditions for the rare Salish Sucker and salmon. Work includes physical management of invasive Himalayan blackberry, bioengineering for bank stability and guarding native trees and shrubs to reduce the impact from beaver herbivory.

Project Goals:

1. Control invasive blackberry on riparian areas.
2. Replanting and bioengineering efforts along Agassiz Slough.

Funded by: District of Kent Grant in Aid, Donations from the Schwichtenberg Family, and leveraged with the Fraser Valley Conservancy's Habitat Stewardship Program for species at risk funding.

KWANTLEN FIRST NATION, FORT LANGLEY

Project Summary: The purpose of this project is to plant native vegetation along the newly constructed George's Creek and complete bioengineering of willows and cottonwoods to create functional high-value salmon habitat.

Project Goals: Support Kwantlen First Nation with:

1. Implementing replanting and bioengineering efforts along newly constructed off-channel salmon habitat.
2. Managing riparian areas through physical controls of invasive blackberry.
3. Teaching Kwantlen First Nation members bioengineering techniques and how to monitor for plant survivorship.

Funded by: Kwantlen First Nation

GORDON'S BROOK, LANGLEY

Project Summary: The purpose of this project is to support the Fraser Valley by planting native plant species at a newly constructed wetland. The plant species chosen had to support fish and wildlife and consider park values and heritage views-capes.

Project Goals: Support the Fraser Valley Conservancy with:

1. Replanting and bioengineering efforts at Gordon's Brook.

Funded by: Fraser Valley Conservancy

EDUCATION & OUTREACH

We believe connecting with our communities through meaningful, fun, hands-on learning activities is critical for building understanding and appreciation for nature and biodiversity.

In 2018 we:

- Hosted 2 community plantings
- Hosted 2 Workshops with Kwantlen First Nation on Bioengineering and Monitoring
- Supported “Do Something Day!”
- Supported Educational Field Trip to Browne Creek Wetlands

Photo: Students from Mount Slesse Middle School learn about fish, native plants and animals and lend a hand controlling invasive blackberry.

"Education is not the filling of a pail, but the lighting of a fire."

- WB Yeats

WATERSHED PLANNING

Projects take time and require well-developed plans

Pending successful grant funding, the FVWC is plans to continue restoration efforts in the Stave River Watershed, Chilliwack and Vedder River and watershed. In addition, we are working with a variety of First Nation partners to assess and begin restoring key salmon habitats in the Salmon River, Harrison River, Chehalis River, Nicomen Slough and surrounding watersheds.

The FVWC continues to work with individuals, governments, First Nations and corporate partners to find solutions to watershed challenges. We welcome your feedback and project ideas.

UPCOMING FVWC FOCUS AREAS

Photo: Vedder River at the Peach-salwein outlet channel.

Restoration

- Peach Creek Year 3
- Stave River
- Thompson Creek Fish Ladder
- Silverdale Creek Wetlands—West
- Salmon River
- Kwantlen FN riparian support
- Nicomen Slough
- Harrison & Heart of Fraser
- Tom Berry Gravel Pit

Education

- Host targeted Learning events
- Host tree planting events
- Host school-group workshops (all-ages)
- Support Take-Action days
- Support Community event attend-ance
- What you can do at Home blog

Organization

- Increase FVWC membership
- Strengthen partnerships
- Evaluate existing programs and expansion for special projects.