



Stormwater Monitoring Program

CRD Environmental Protection Division

Our Program

- Guided by LWMP commitments
- Works with local governments, First Nations, various jurisdictions & communities to maintain healthy watersheds & protect near shore receiving environments.



Our Program

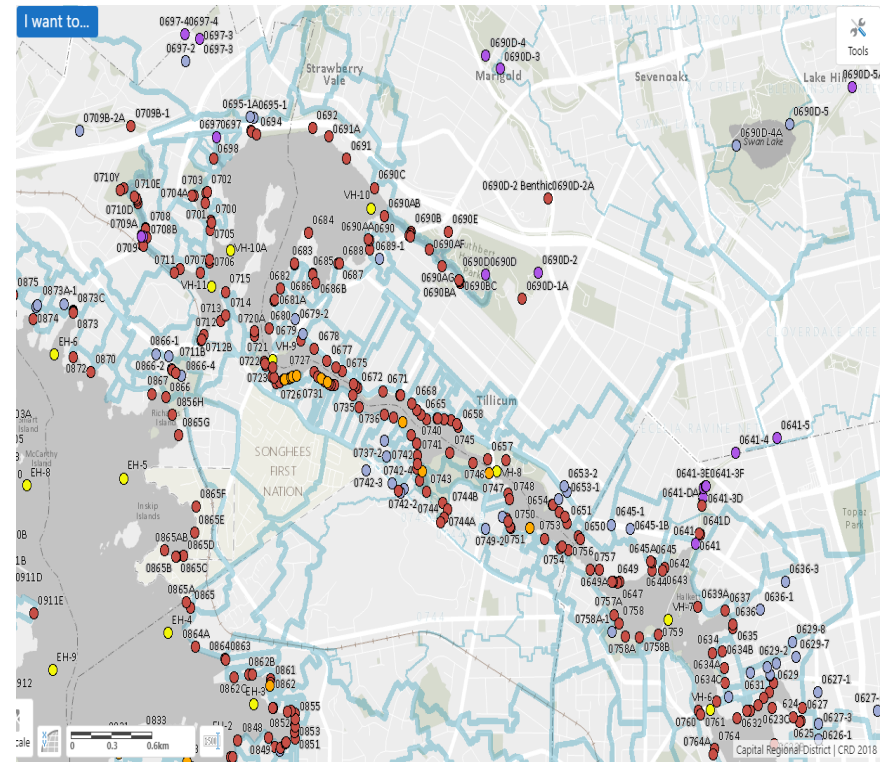
The CRD roles include:

monitoring, reporting, source investigation, prioritizing issues, education, collaboration and source control



Monitoring –Gorge and Portage Inlet

- **SW discharges**
 - bacteria (some metals, PAH)
 - annually
- **Watersheds**
 - Cecelia, Craigflower & Colquitz
 - bacteria, nutrients, metals, physical
 - every 5 yrs
- **Marine water**
 - bacteria, nutrients, metals
 - every 5 yrs
 - Last in 2018



2020 Stormwater Discharges – *E.Coli*

- **145** stormwater discharges in Gorge
- **52** monitored in 2020
- **24** had elevated *E.Coli* counts
- **5** of these had high counts (>5000 *E.coli* /100 mL) (down from 12)
- **4** assigned a **high**-public health concern rating (down from 7)



Photo by Sara Stallard

2020 High-rated Discharges – *E.coli*

- **649** – Gorge Road Hospital – **contacted**
- **650** –end of Harriet Road - CRD to do source investigations; dry in summer
- **758A** – Banfield Park; counts fluctuate; one source fixed; flows greatly reduced; dry in summer
- **744B** –Gorge-Esquamalt Park; Gosper Cres; 2 cross-connections identified; Esquamalt has **fixed** one, and another to be fixed this week



2020 to 2021 Successes

Repaired or lower counts

- **641** –Cecelia Creek; counts lower (16 to 320 CFU/100 mL)
- **653** –Saanich found cross-connection and **repairs** underway (near Aaron Point)
- **712** – near Shoreline school; a couple high counts – low now
- **749** –Uganda Ave – Esquimalt **fixed** a combined manhole – lower counts
- **749A** - old log spillway between 930 and 936 Selkirk Ave – lower counts



Photo by Sara Stallard

2020 Craigflower Creek Monitoring

weekly sample collection

5 weeks in summer and in fall

4 locations

bacteria, metals, physical parameters

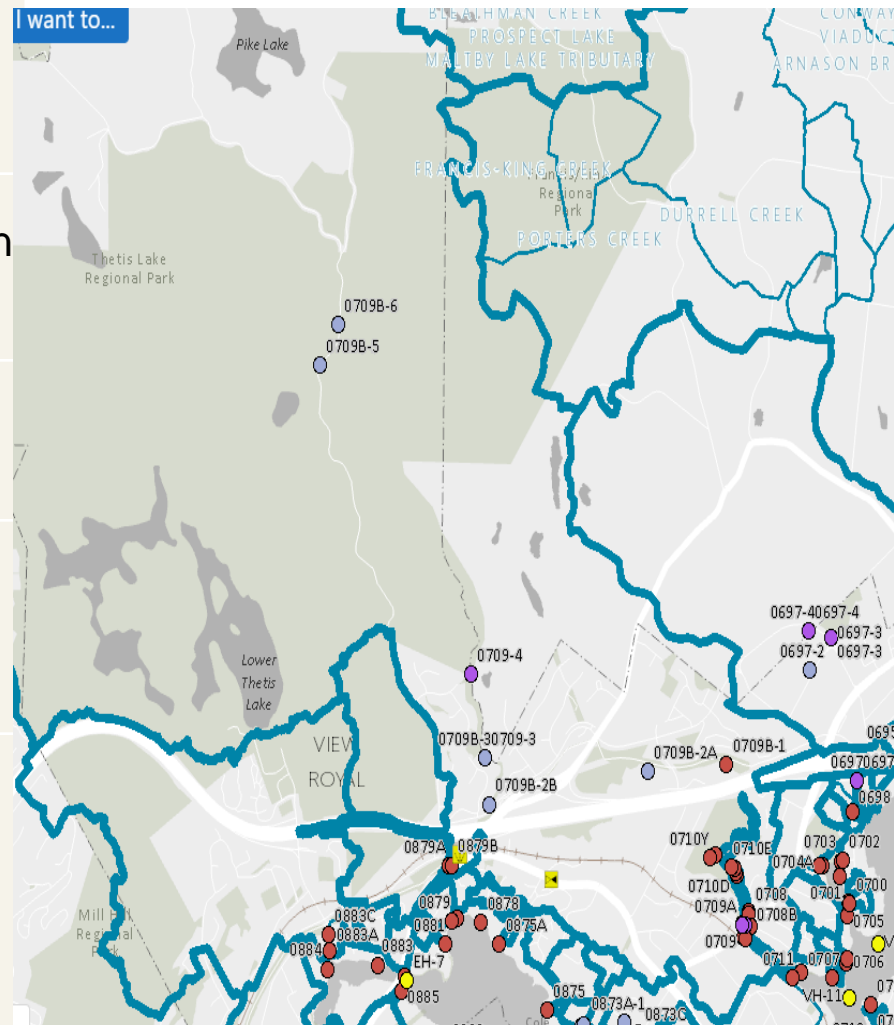
comparison to WQG and WQO

Benthic invertebrate collection



Craigflower Monitoring Locations

SW0709B-2A	under Talcot Road and the HWY, near fish fence
SW0709B-4	Riverside Dr., upstream of retention pond
SW0709B-5	McKenzie Creek upstream of Highland Rd.
SW0709B-6	upstream of Highland Rd.
SW0709B-6A	roadside ditch, 500mm culvert, E side of Highland Road, d/s bridge



Craigflower Creek Watershed (2011)

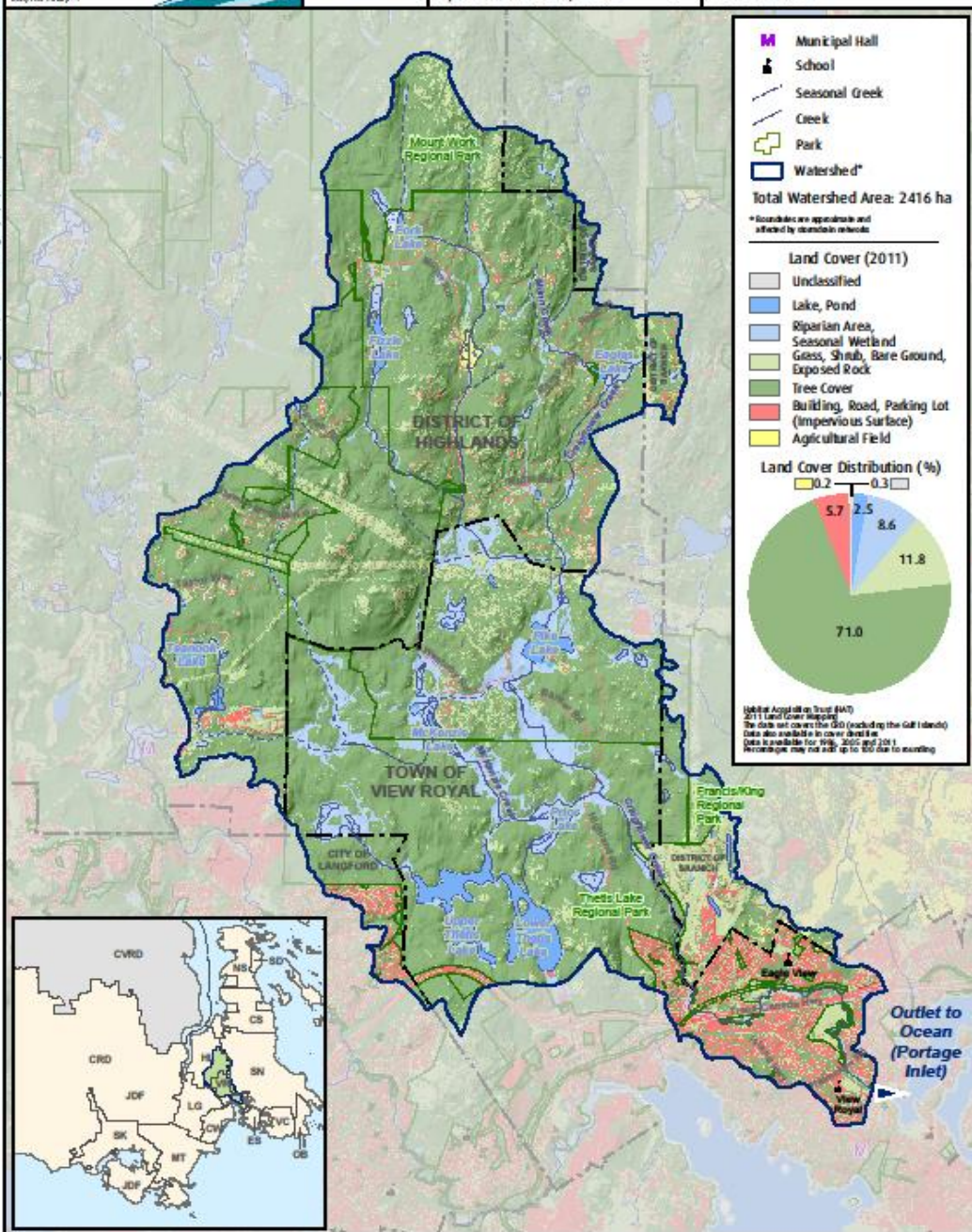


RBC
Blue Water
Project

0 250 500 750 1,000
Metres
Projection: UTM, Zone 10 North, NAD 1983



DISCLAIMER
This map is for general information purposes only. The City of Portage Inlet (CRD) makes no representation or warranty regarding the accuracy or completeness of this map or the suitability of the map for any purpose. The map is not for navigation. The CRD will not be liable for any damage, loss or injury resulting from the use of the map or the information on the map and the map may be changed by the CRD at any time.



Making a difference...together

Craigflower Creek Monitoring Results

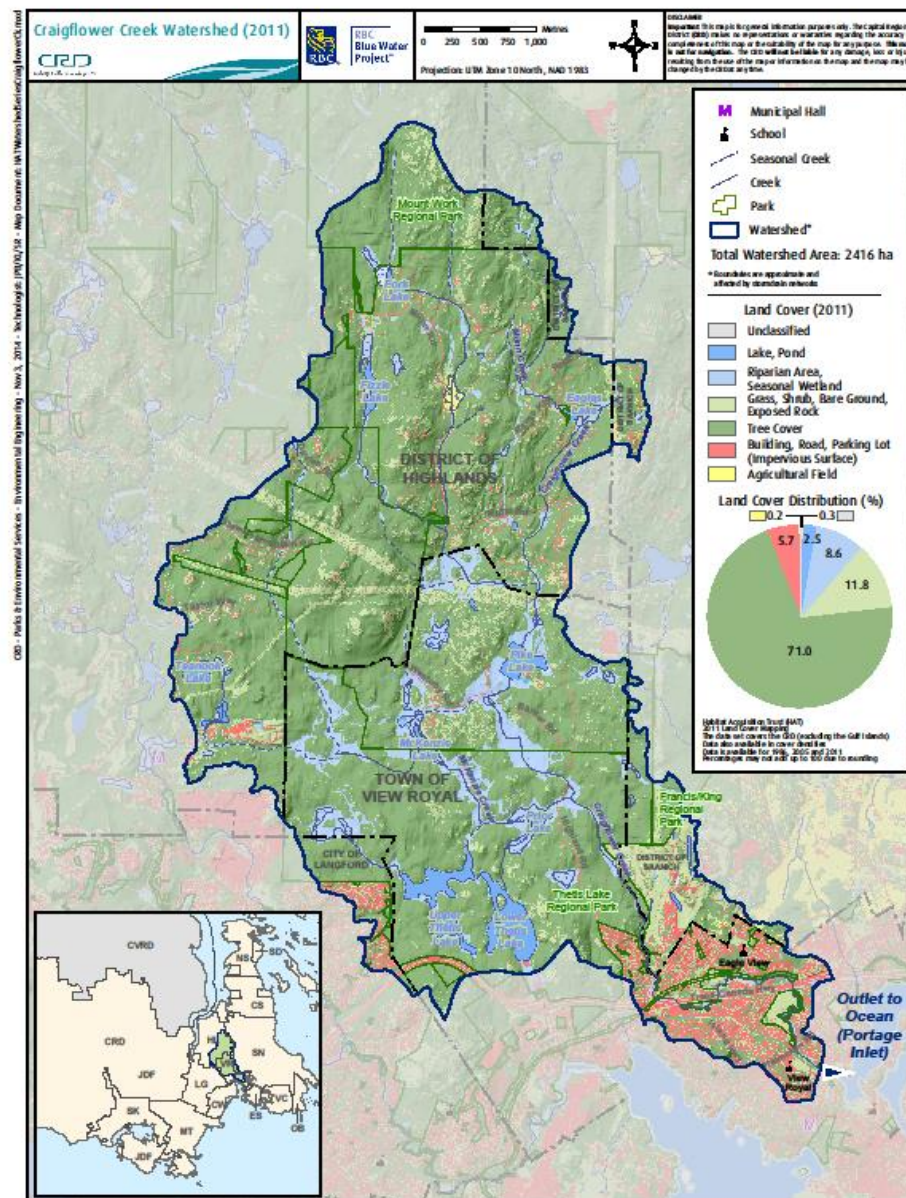


Making a difference...together

Parameters outside the guidelines:

- DO
- Temperature
- Aluminum
- Iron
- Phosphorus
- Turbidity & TSS
- *E.Coli*

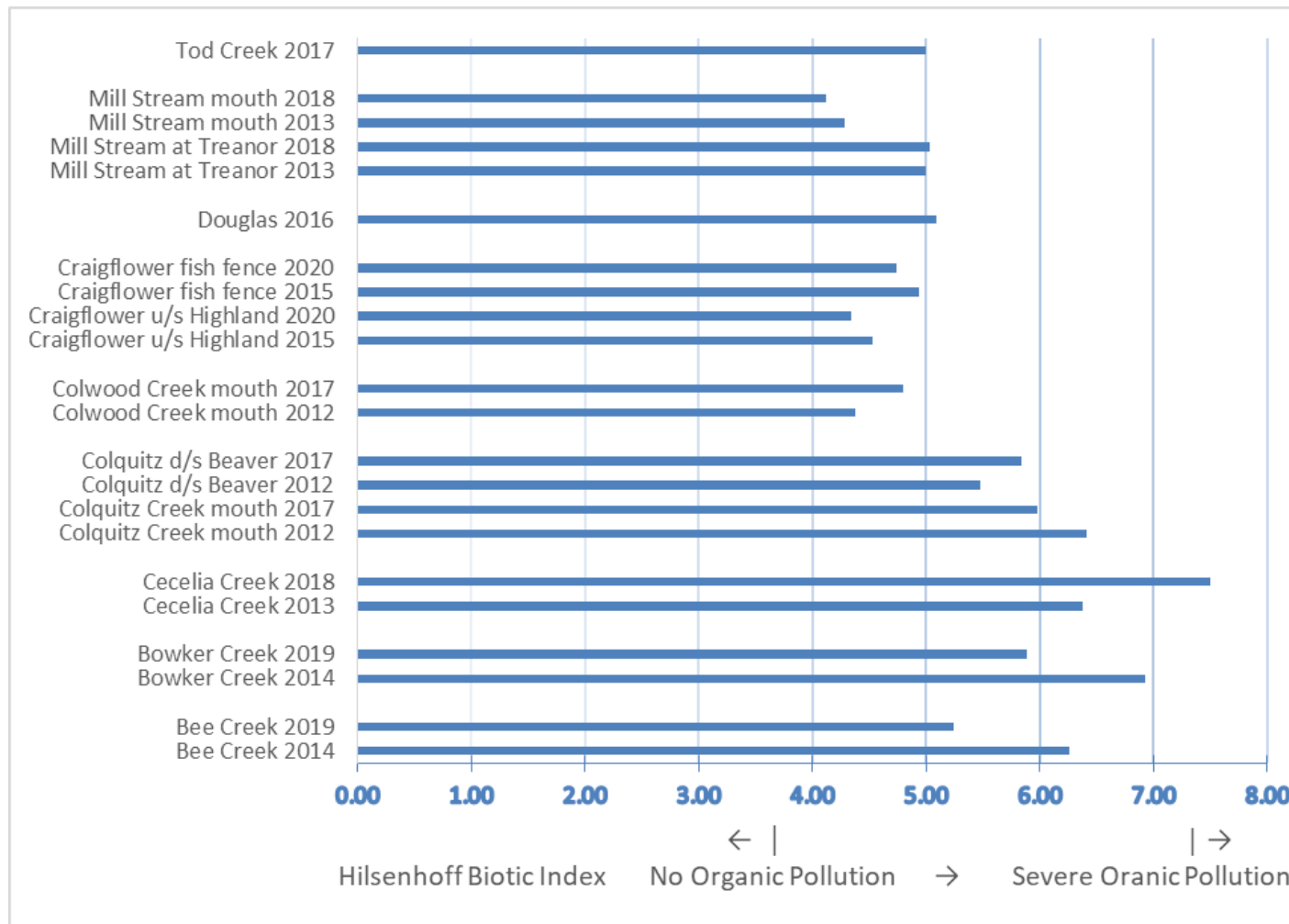
Same parameters as 2015 except
temperature: elevated d/s of Prior lake



Craigflower Creek Benthic Invertebrate



Making a difference...together



Questions?



Extra slide: Nov 2019 BST Results

	E.Coli	Enterococci	BST Result
744 Gorge Creek	4100	170	Human, Dog
744 Beach	5	4	Dog, Gull, Human

Upstream cross-connection
fixed in 2018

Extra Slide: 2018 Marine Results

Parameters outside the objectives

- DO :
 - all stations except 2 in Portage Inlet
- Cu :
 - 1 station in Gorge (Cecelia -VH-7A),
 - 1 in PI (VH-10)
- Zn:
 - 1 station in Gorge (Cecelia -VH-7A),
 - 1 in PI (VH-10B)
- FC:
 - 2 stations in Gorge (VH-7B, VH-9),
 - all in PI
- Enterococci:
 - 1 station in Gorge (Cecelia -VH-7A),
 - all in PI

