

# Community Flow Monitoring Network



Vancouver Island

## Spring 2026 Network Meeting

May 12, 2026

12:00 - 2:00 PM

Via Teams

*Project funding and support provided by:*



Ministry of  
Environment  
and Parks



REGIONAL  
DISTRICT  
OF NANAIMO

BC | BC Conservation &  
Biodiversity Awards



Comox Valley  
REGIONAL DISTRICT



BRITISH  
COLUMBIA  
Community Gaming Grants

# Agenda



## 1) Brief program update

- New resources
- Data summaries
- Upcoming in spring 2026

## 2) Image Velocimetry: An Emerging Method for Streamflow Monitoring – **Russell Smith, WaterSmith Research Inc.**

-short break-

## 3) Flo-Mo Network Data update - **Sarah Hardy/Jon Jeffery**

# New Resources

Updated data sheet

FT2 Field Guide

Community  
Flow Monitoring  
Network



Vancouver Island



BRITISH COLUMBIA  
CONSERVATION FOUNDATION

# New Resources

## Updated data sheet

Community  
Flow Monitoring  
Network



Vancouver Island



BRITISH COLUMBIA  
CONSERVATION FOUNDATION

FLO-MO Network VI – Field Collection Data Sheet VERSION 5.2

Station Name: \_\_\_\_\_ Date: \_\_\_\_\_

Time Arrived: \_\_\_\_\_ Time Left: \_\_\_\_\_

Crew: \_\_\_\_\_

Weather (recent rain, air temp, etc.): \_\_\_\_\_

\_\_\_\_\_

Visit purpose (select all that apply):

- stage only
- logger download
- level survey
- stage-discharge measurement
- station maintenance – Note what was done in Comments

**STAGE MEASUREMENT:**

1<sup>st</sup> reading: \_\_\_\_\_ (3 decimal places) Time: \_\_\_\_\_  Photo taken (Note surge if greater than 3mm)

2<sup>nd</sup> reading: \_\_\_\_\_ (3 decimal places) Time: \_\_\_\_\_  Photo taken

Control Cleaned? NO YES (circle) – Time start: \_\_\_\_\_ Time end: \_\_\_\_\_ - Note details in comments

**PHOTOS:** \*photos required at every site visit - best if taken using wide angle from same viewpoint each time

- Staff gauge
- Entire site
- Facing downstream from gauge pool (control)
- Facing upstream from gauge pool
- FT transect location (if applicable)

**DISCHARGE MEASUREMENT:** Transect location: \_\_\_\_\_

Time start: \_\_\_\_\_

Time end: \_\_\_\_\_

Total discharge: \_\_\_\_\_ (L/s or m<sup>3</sup>/s)

**LOGGER DOWNLOAD:** Levellogger Barologger (circle all that apply)

Time moved from housing: \_\_\_\_\_

Time returned to housing: \_\_\_\_\_

- .xle file saved
- .csv file saved
- Screenshot of 'Datalogger Settings' page saved
- Logger not stopped (download only)
- Logger stopped and relaunched (download + re-launch)
- Synchronized logger time to computer time – note time difference (drift) before sync

**COMMENTS** (control conditions, etc.): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# New Resources

Community  
Flow Monitoring  
Network



Vancouver Island



BRITISH COLUMBIA  
CONSERVATION FOUNDATION

## FT2 Field Guide

### Front side

FLO-MO Network VI – FT2 Field Guide

Version 1.0

#### Step 1: Set Up Instrument

- Screw probe securely on to bottom of wading rod and tighten gently with wrench
- Connect communication connector to bottom of yellow head unit
- Connect plastic holder to wading rod and screw into back of yellow head unit



#### Step 2: Prepare Transect Site

##### 1. Select transect site

###### The ideal measurement site will have:

- Uniform flow
- A straight channel with uniform cross section (similar slope and depth across section)
- Stable, defined banks (no undercutting or vegetation)

###### Avoid sites with:

- Turbulent flow
- Deep pools
- Bends or steep slopes immediately upstream
- Undercut/undefined banks
- Negative flow/back eddies

2. Set out measuring tape – the tape should be perpendicular to

### Back side

FLO-MO Network VI – FT2 Field Guide

Version 1.0

#### Step 3: Collect Measurement Data

1. Select Measurement > Discharge
2. Select your site from the menu or select “(default)” and enter site details
3. Perform Beam Check – follow prompts on screen
4. Select “Add Station” and enter starting bank details
5. Continue adding “Stations” (aka panels) at selected intervals

#### Step 4: Complete Measurement

1. Ensure all panels are entered correctly
  - Check spacing (minimum 10 cm wide), depth, # of panels
  - If possible, aim for no red bars (panels w/ >10% discharge [aka ‘Q’])
1. Select Menu > Complete Measurement
2. Check the final Summary screen and note the discharge value
3. Select Complete to save your measurement

#### Helpful How-Tos:

1. **How to edit a station (location, depth, etc.)**
  - Hover over station bar and select using enter key (middle top of keypad)

# New Resources

## FT2 Field Guide – Helpful How-Tos

- Laminated copies provided
- Available digitally on our website  
[cfmvi.com/resources/fieldguides](https://cfmvi.com/resources/fieldguides)

Community  
Flow Monitoring  
Network



Vancouver Island



BRITISH COLUMBIA  
CONSERVATION FOUNDATION

### Helpful How-Tos:

- 1. How to edit a panel (a.k.a. 'station'):**
  - Hover over panel bar and select using enter key (middle top of keypad)
  - Select Edit Station – note: if you edit the depth you will likely need to re-do the measurement (follow #3 below)
  - When edits complete, select Measure > Done/Review
- 2. How to delete a panel:**
  - Hover over panel bar and press the delete key (bottom right 'X' on keypad) > select Delete
- 3. How to delete and re-do a velocity measurement:**
  - Hover over station bar and select using enter key (middle top of keypad)
  - Select Edit Station > Measure
  - Select Menu > Discard 0.6 > Delete
  - Use the enter key to reselect the 0.6 measurement for that station

# Data Summaries

Community  
Flow Monitoring  
Network



Vancouver Island



BRITISH COLUMBIA  
CONSERVATION FOUNDATION

# Data Summaries



E.g., Tsolum River

Table 1. Mean monthly discharge and mean annual discharge based on average daily values at Tsolum River

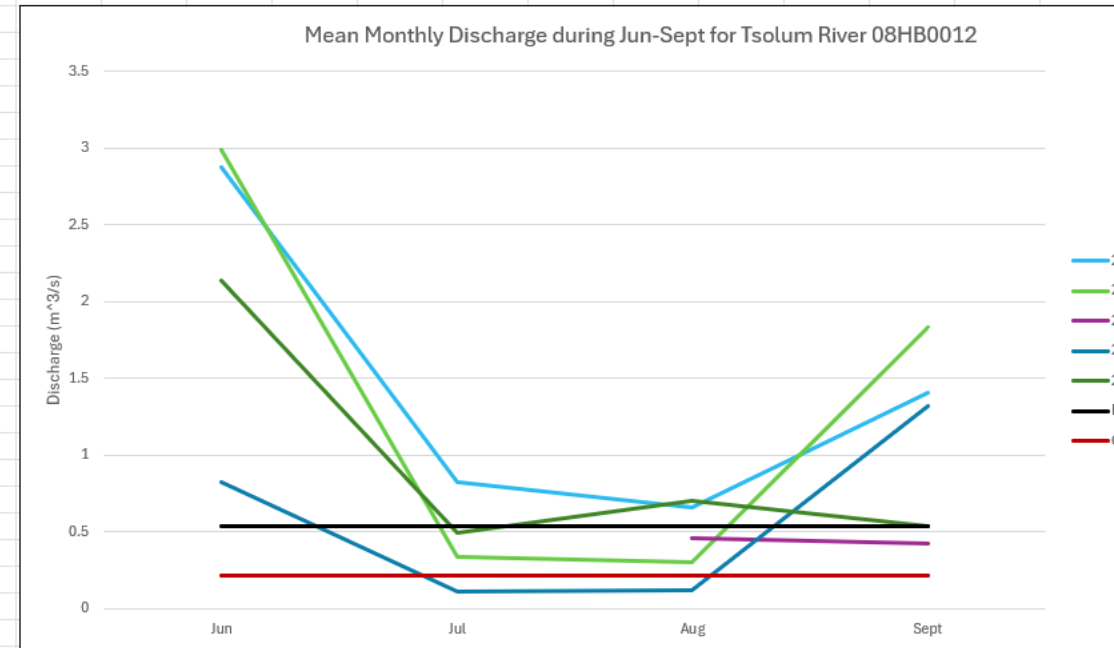
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual		
2012											4.13	16.6	12.8	***	
2013	7.33	10.2	9.05	7.92	6.52	4.65	1.15	0.911	0.373	0.393	0.875	14.3	11	19.7	***
2014						5.44	1.02	0.373	0.393	0.875	14.3	11	19.7	***	
2015	8.88	11.3	7.01	3.64	0.726	0.399	0.133	0.426	1.42	2.25	7	21.3	5.35	5.35	
2016	16.7	12.9	18.7	4.19	1.85	1.6	0.677	0.309	0.506	24.3	28.8	6.67	9.76	9.76	
2017	9.74	9.81	10.2	12.7	5.55	2.7	0.515	0.469	0.406	2.25	15.7	4.35	6.21	6.21	
2018	19.2	6.03	4.06	9.19	3.42	1.34	0.525	0.257	2.28	3.63	9.13	18.6	6.49	6.49	
2019	15.7	2.91	2.66	5.64	2.52	0.53	0.828	0.531	1.64	4.98	4.48	7.39	4.17	4.17	
2020	21.4	7.23	3.12	3.73	4.2	2.88	0.822	0.659	1.41	4.07	8.86	13.6	6.01	6.01	
2021	16.4	5.42	7.64	4.44	4	2.99	0.333	0.298	1.83				***	***	
2022								0.455	0.422	0.386	0.706	11	***	***	
2023	19.6	5.54	4.18	11.9	6.19	0.827	0.114	0.119	1.32	6.78	9.73	20.2	7.16	7.16	
2024	17.5	6.79	9.57	3.42	2.21	2.14	0.49	0.7	0.533	4.31	21.8	19.7	7.46	7.46	
AVG (Entire Period)	15.245	7.813	7.619	6.677	3.875	1.916	0.542	0.461	1.364	6.209	11.741	13.204	6.440	6.440	
10-YR AVG (2015-2024)	16.124	7.548	7.460	6.539	3.407	1.712	0.493	0.422	1.177	5.884	11.801	13.646	6.576	6.576	

Data Legend RISC U RISC C *Italicized values are under review and subject to change*

Table 2. Instantaneous monthly and annual maximum values at Tsolum River

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012										35.6	101	72.9	
2013	17.1	38.1	21.1	18	23.1	28.6	6.16	9.01	60.3	20	44.6	5.2	60.3
2014						12.6	2.4	0.867	0.537	3.91	114	55	154
2015	42.3	81.2	31.4	16	1.62	2	0.211	3.54	9.96	10.1	26.6	117	117
2016	157	66	89.1	7.2	4.38	8.29	2.36	0.564	0.911	132	142	26.1	157
2017	75.3	100	33.4	43.8	10.5	14	1.11	0.657	0.561	10.8	90.4	13.7	100
2018	124	14.3	7.2	32.2	7.54	2.55	2.1	0.358	16.6	13.1	54	86.9	124
2019	95.1	6.12	6	26.9	4.83	3.06	3.04	2.34	10.8	23.5	27.5	26.1	95.1
2020	67.7	57	4.7	6.48	18.3	7.06	2.66	3.29	14.3	20.2	47.2	58.4	67.7
2021	76.3	16.8	37.1	7.58	6.43	9.47	0.885	0.597	27.2				76.3
2022								0.649	0.506	0.642	1.46	110	110
2023	103	20.9	7.08	82.2	16.5	1.44	0.242	0.194	15.5	41.9	47.7	166	166
2024	123	63.3	31.8	8.15	3.45	8.82	1.3	4.81	1.6	21.7	109	131	131
MAX (Entire Period)	157	100	89.1	82.2	23.1	28.6	6.16	9.01	60.3	132	142	166	166

Data Legend RISC U RISC C *Italicized values are under review and subject to change*



6.440

# Spring 2026

## Knowledge Tracking Survey Update

- Updated Questions
- Fewer Questions
- Sent out via email
- Available on our website [cfmnvi.com](http://cfmnvi.com)

Results from 2022-2025 surveys are available in: *Initiating a CFMNV I Technical Summary Report Year 3*

Community  
Flow Monitoring  
Network



Vancouver Island



BRITISH COLUMBIA  
CONSERVATION FOUNDATION

Community  
Flow Monitoring  
Network



Vancouver Island

### Community Flow Monitoring Network - Vancouver Island

#### Continuing Participation Survey

The purpose of this survey is to help assess your personal understanding of streamflow monitoring concepts while actively participating in the Flow Monitoring Network.

This survey is meant to track changes in participant knowledge and information retention over time. And, hopefully, assess how participants' responses change (or if any change is observed at all) after taking part in the network. This is so we can assess whether the training we are providing is having a positive impact.

This survey should take about 5-10 minutes to complete. Please answer to the best of your ability, and do not refer to outside sources for information. **All responses will be kept confidential.**

#### Self-Assessment Statements

1. I am confident in the streamflow monitoring techniques that I use.

1 – I am not confident at all, I need lots of field support

2 – I am somewhat confident, I benefit from regular field support but concepts come easily

3 – I am very confident, I have few questions and don't require regular field support (the occasional visit helps)

# 2026 Spring Measurements

Community  
Flow Monitoring  
Network



Vancouver Island



BRITISH COLUMBIA  
CONSERVATION FOUNDATION



Often February – April is best time to measure

- Clear control
- Can observe many conditions (high, mid, low flow)

# 2026 Spring Measurements

Community  
Flow Monitoring  
Network



Vancouver Island



BRITISH COLUMBIA  
CONSERVATION FOUNDATION



Great work!

17 measurements conducted between  
Feb – Apr 2026

2-3 per station

Check out your station [Site Visit Tracker](#) docs in the Flow Network Drive for details

# New BCCF Pilot Project

Community  
Flow Monitoring  
Network



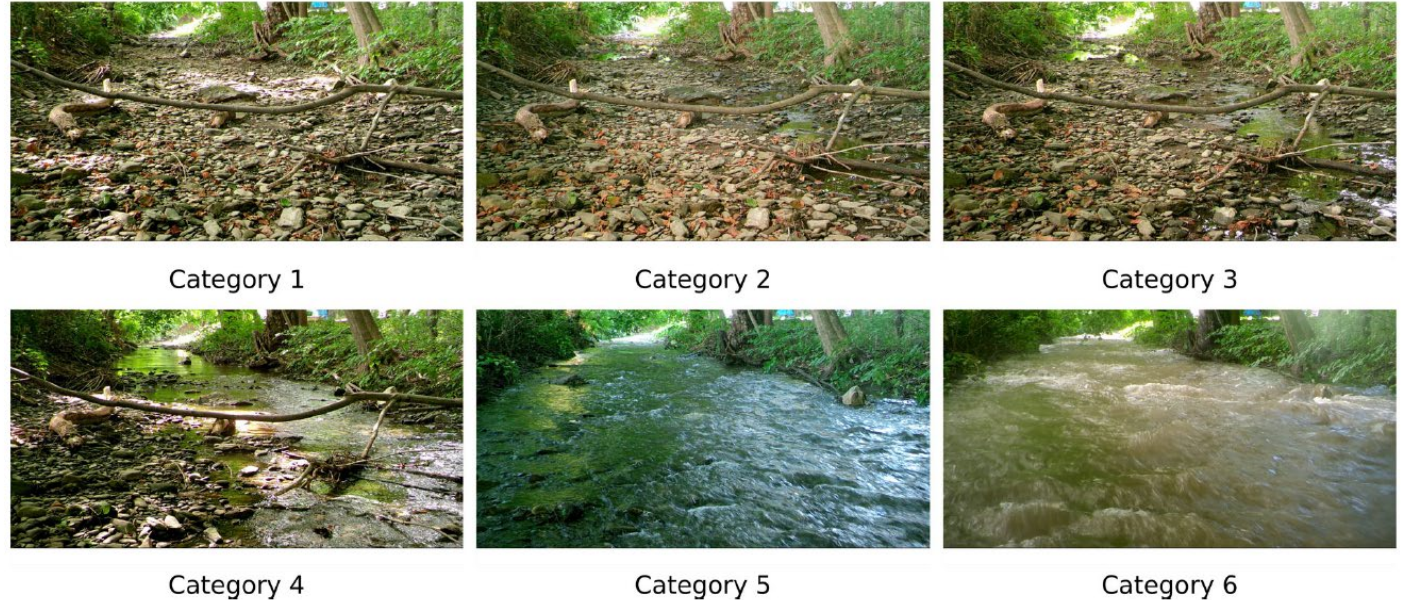
Vancouver Island



BRITISH COLUMBIA  
CONSERVATION FOUNDATION

*Trialing the use of trail cameras to assess urban stream connectivity*

- 3-4 sites in Nanaimo (TBD)
- Low flow monitoring (June-Sept 2026)
- Develop SOP for most effective methodology
- Aim is to develop wider-scale monitoring project based on the results



**FIGURE 2** Example of each stream connectivity category used in this study (Table 1). Categories 1–3 were considered disconnected flow (top) and 4–6 connected flow (bottom)

Bellucci et al., 2020

# Rapid Drought Assessments



Fisheries and Oceans Pêches et Océans  
Canada Canada

Community  
Flow Monitoring  
Network



Vancouver Island



BRITISH COLUMBIA  
CONSERVATION FOUNDATION

A new project aims to **amplify and connect that fantastic work**, to expand our understanding of how and where drought is affecting aquatic ecosystems — especially salmon habitat — across the province.

Participation is intentionally flexible to build on what partners already do

- Visual or measured observations of fish and aquatic habitat
- Stream flow connectivity and signs of water scarcity (e.g., dry reaches, isolated pools)
- Water temperature and basic water chemistry (where available)
- Observations of stranded or stressed fish, migration barriers, and available refuge habitat

All contributed data will be **quality-checked and published on the BC Drought Portal**

 <https://droughtportal.gov.bc.ca/>

If this sounds like something your organization could support, **find out more:**

Register for Webinars: Link to follow shortly

Contact us: [Recovery.restoration@gov.bc.ca](mailto:Recovery.restoration@gov.bc.ca)

# Comments? Questions?

[awall@bccf.com](mailto:awall@bccf.com)

**Community  
Flow Monitoring  
Network**



Vancouver Island



**BRITISH COLUMBIA  
CONSERVATION FOUNDATION**

# Community Flow Monitoring Network



Vancouver Island

## 5 Minute Break

*Project funding and support provided by:*



Ministry of  
Environment  
and Parks



REGIONAL  
DISTRICT  
OF NANAIMO



BC Conservation &  
Biodiversity Awards



Comox Valley  
REGIONAL DISTRICT



BRITISH  
COLUMBIA  
Community Gaming Grants

# Image Velocimetry: An Emerging Method for Streamflow Measurement

Russell Smith, WaterSmith, Kelowna, BC

May 12, 2026



BRITISH COLUMBIA  
CONSERVATION FOUNDATION

**WATERSMITH**

## Outline

- My background
- What is image velocimetry?
- How is it implemented?
- Example implementations
- Utility
- Limitations
- Acknowledgements

## **My background**

- BSF Forest Operations (UBC Forestry) (1999)
- MSc Hydrology & Geotechnical Engineering (Oregon State) (2001)
- PhD Hydrology (runoff generation processes) (UBC Geography) (2011)
- RPF (2002)
- 19 years in consulting
  - 15 years with WaterSmith Research Inc. (Kelowna)

## My background

- Developed a pilot study for Imperial Metals to explore the feasibility of image velocimetry for measuring streamflow
  - Accuracy, efficiency
  - 7 streams, 0.3 m to 15 m wide
- Working with Pacific Salmon Foundation to develop a framework for guiding community monitoring groups in selecting and implementing methods and technologies for monitoring stream temperature and flow
  - Image velocimetry selected to profile in the framework

## What is image velocimetry?

- It's not just a tongue twister!!!
- Measurement technique that utilizes a short video of the stream for calculating streamflow
  - Velocity (i.e., speed and direction of flow) (m/s)
  - Discharge (i.e., volume of flow) (m<sup>3</sup>/s)
- Recently adopted by Water Survey of Canada as an acceptable method

## How is velocity calculated from a video?

- Set up control points and survey distance between points



## How is velocity calculated from a video?

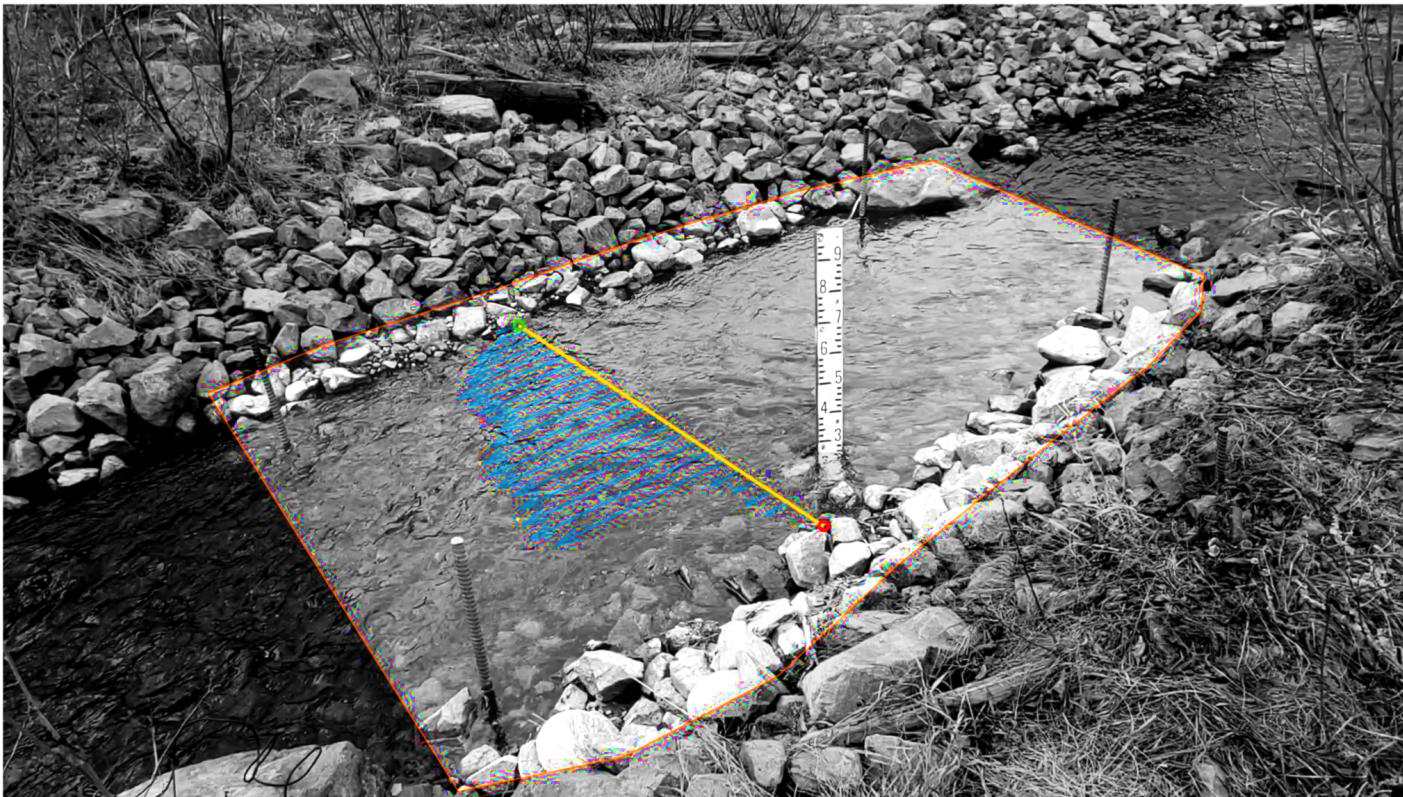
- Capture 15 second video



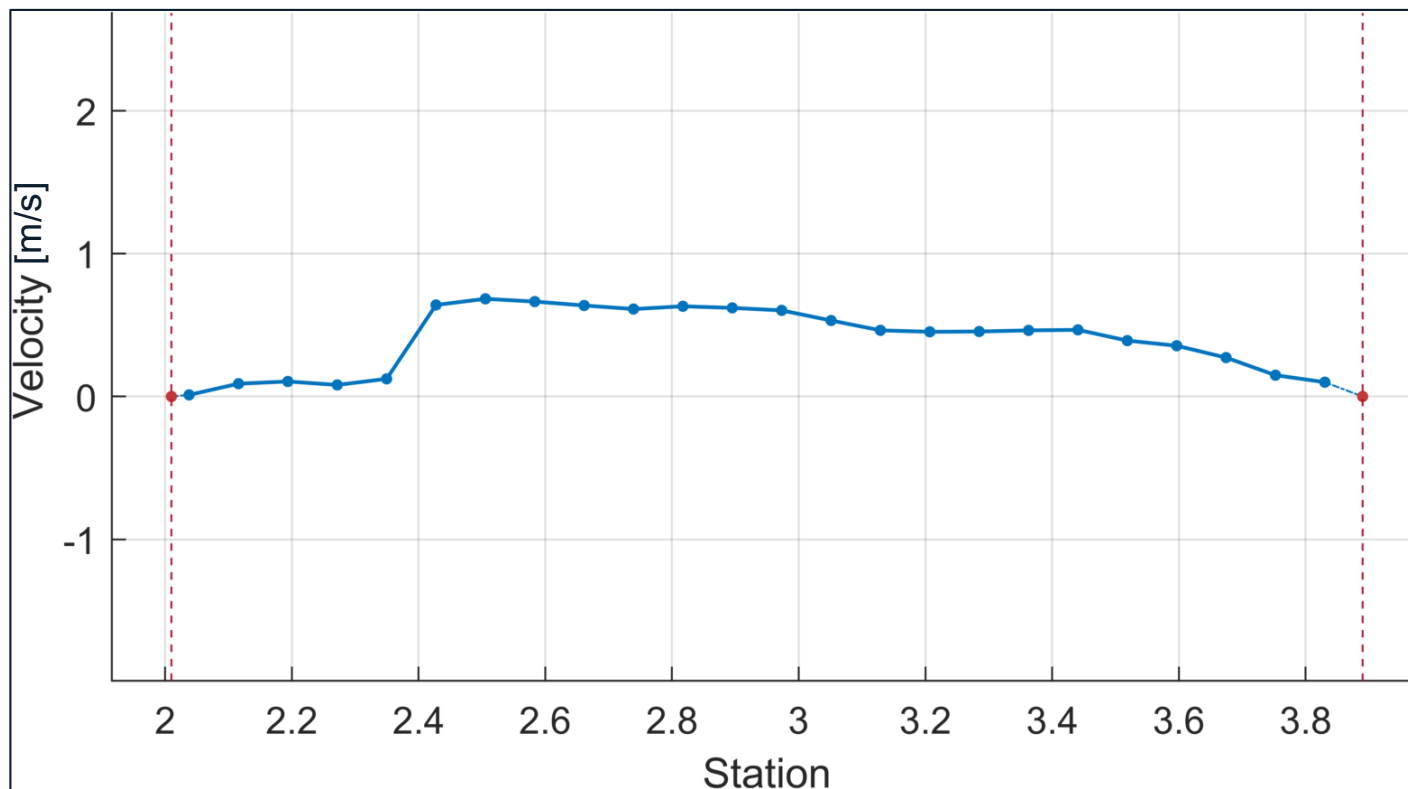
## How is velocity calculated from a video?

- Process video in specialized software at office
  - Freely available
- Calculates velocity of water at the surface (i.e., surface velocity)
  - Breaks video down into pictures of tiny particles in the water
  - Tracks movement of particles over time
- Calculates mean velocity for several evenly-spaced stations across the cross-section (e.g., 20 or more)

## How is velocity calculated from a video?

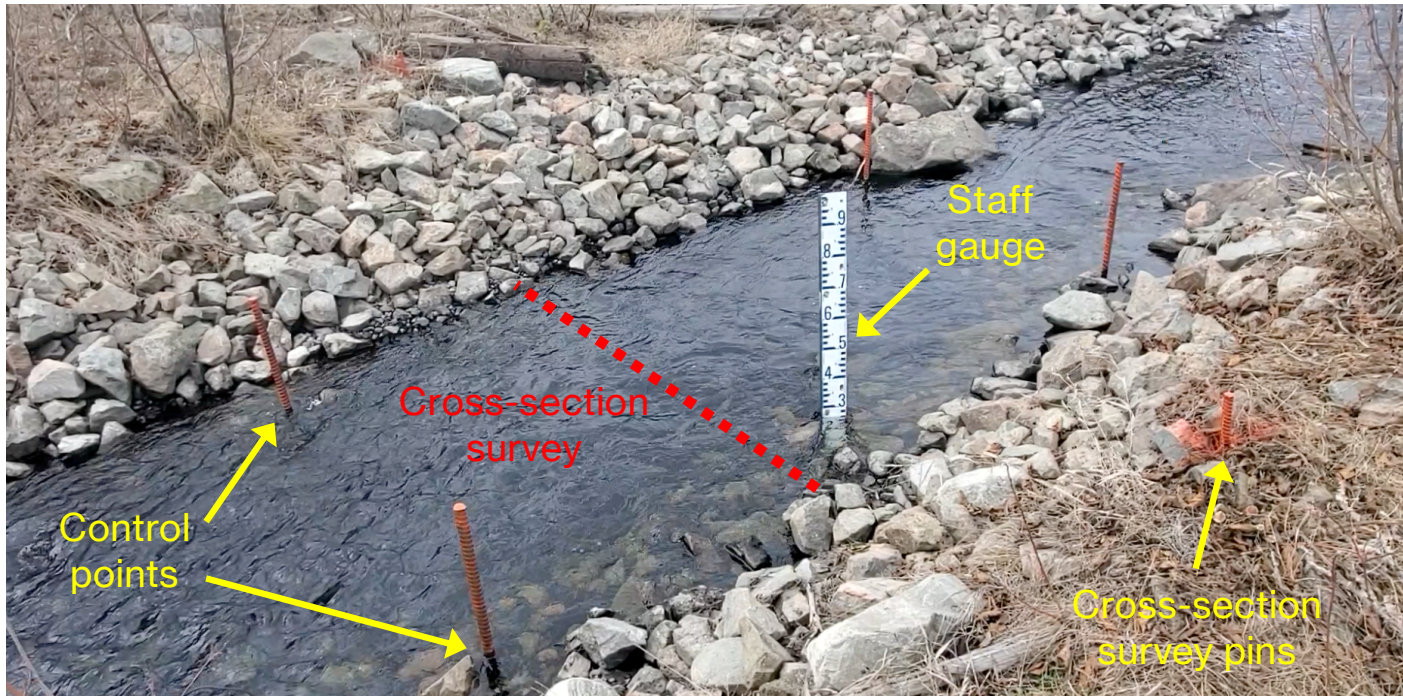


## How is velocity calculated from a video?

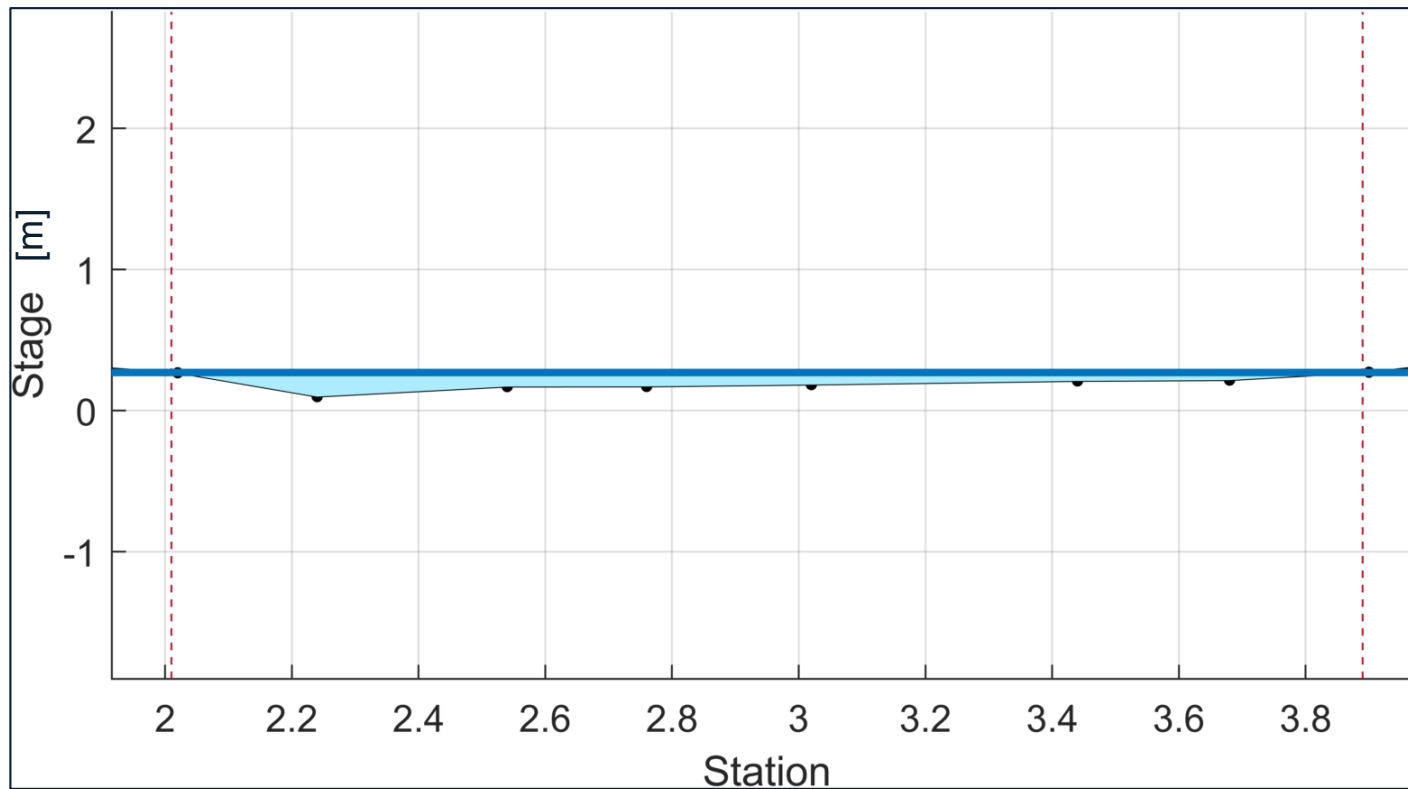


## How is discharge calculated?

- Set up staff gauge and cross-section survey



## How is discharge calculated?

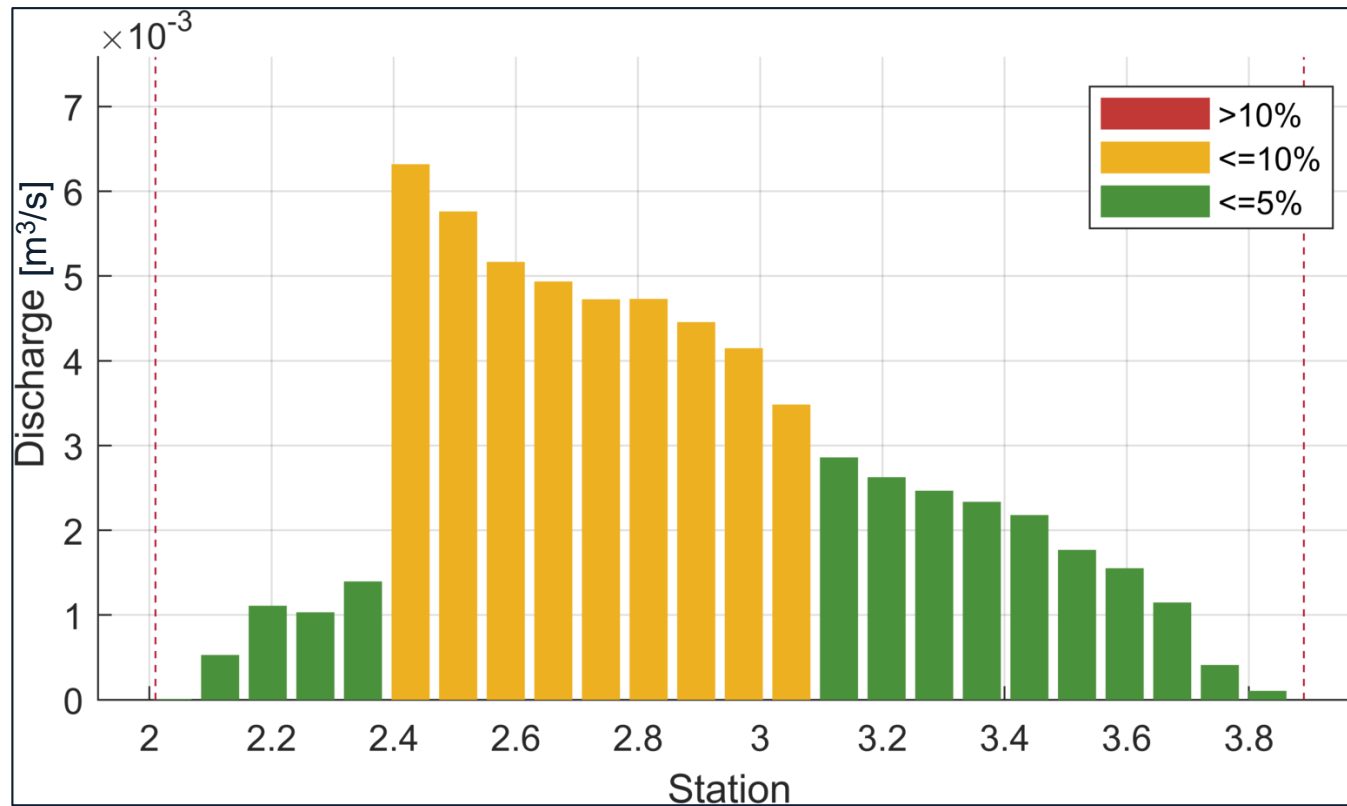


## How is discharge calculated?

- Apply adjustment factor to surface velocity to calculate depth-averaged velocity
  - i.e., average velocity in water column between the stream bed and the water surface
- Then multiply by water depth

## How is discharge calculated?

- Sum all individual discharge values



## Additional examples



# Additional examples



## Utility of the method

- Well suited to involving volunteers and non-technical personnel
  - After initial set up, ongoing field monitoring is simple, fast, and requires only basic training
  - Can avoid wading into stream during high flow
- Low equipment costs
  - Smartphone or drone, staff gauge, rebar, basic surveying tools
- Suitable for remote access
- No theoretical limit on range of discharge that can be measured

## **Sounds amazing!!! Why not use it everywhere?**

- Not well suited to low velocities
  - Water movement must be visible in video
- Requires trained technician for some phases
  - Initial set up
  - Occasional resurveying of cross-section
  - Video processing
- Accuracy varies with site conditions
  - Sun reflection and partial shade on water surface can be problematic

**Thank you!**

BC Conservation Foundation

Imperial Metals Inc.

Pacific Salmon Foundation

James Bomhof (WSC)

Matteo Saletti (DFO)



# Community Flow Monitoring Network

Data Update

# Tips for Transitioning into Spring/Summer

- Spring measurements
  - Great time to get out for a clear discharge mmt
- Control cleaning
  - Take a before and after water level reading, take clear notes if doing a discharge measurement
- Low flow measurements
  - Look around for a good transect site that constricts flow to increase velocity and avoid backwater
- Verifying your measurement
  - Check rating error ( $< 25\%$ ) and uncertainty after discharge measurement
  - Check control to see if any changes and consider re-doing measurement if issues



# How to Check Rating Curve Table – Field Example

Site visit to Wilfred Creek (08HB0024) on 2025-02-18:

- Staff gauge reading (start) = 0.303m
- Staff gauge reading (end) = 0.303m
- Measured discharge by Flowtracker = 0.345 m<sup>3</sup>/s

Calculate stage and find rated discharge in rating curve table

- Stage = 9.042 m + 0.303 m = **9.345m**
  - Elevation bottom of staff gauge = 9.042 m
- Rated discharge = **0.396 m<sup>3</sup>/s**

Compare rated discharge to measured discharge

$$\text{Discharge deviation (\%)} = \frac{\text{Measured discharge} - \text{Rated discharge}}{\text{Rated discharge}} \times 100\%$$

$$\text{Discharge deviation (\%)} = \frac{0.345 \text{ m}^3/\text{s} - 0.396 \text{ m}^3/\text{s}}{0.396 \text{ m}^3/\text{s}} \times 100\% = \mathbf{-12.8\%}$$

Stage (m)	Discharge (m <sup>3</sup> /s)										Difference in Discharge per 0.01 m	
	0.000	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009		
9.19											0.0195	0.0204
9.20	0.0213	0.0222	0.0232	0.0242	0.0252	0.0262	0.0272	0.0282	0.0293	0.0304	0.0304	0.0102
9.21	0.0315	0.0327	0.0338	0.035	0.0362	0.0375	0.0387	0.04	0.0413	0.0426	0.0426	0.0124
9.22	0.0439	0.0453	0.0467	0.0481	0.0495	0.0509	0.0524	0.0539	0.0554	0.0569	0.0569	0.0146
9.23	0.0585	0.0601	0.0617	0.0633	0.065	0.0666	0.0683	0.07	0.0718	0.0735	0.0735	0.0168
9.24	0.0753	0.0771	0.079	0.0808	0.0827	0.0846	0.0865	0.0885	0.0905	0.0924	0.0924	0.0191
9.25	0.0945	0.0965	0.0986	0.101	0.103	0.105	0.107	0.109	0.111	0.114	0.114	0.0215
9.26	0.116	0.118	0.12	0.123	0.125	0.128	0.13	0.132	0.135	0.137	0.137	0.0238
9.27	0.14	0.142	0.145	0.147	0.15	0.153	0.155	0.158	0.161	0.163	0.163	0.0262
9.28	0.166	0.169	0.171	0.174	0.177	0.18	0.183	0.186	0.189	0.192	0.192	0.0286
9.29	0.195	0.198	0.201	0.204	0.207	0.21	0.213	0.216	0.219	0.222	0.222	0.0311
9.30	0.226	0.229	0.232	0.235	0.239	0.242	0.245	0.249	0.252	0.256	0.256	0.0335
9.31	0.259	0.263	0.266	0.27	0.273	0.277	0.281	0.284	0.288	0.292	0.292	0.036
9.32	0.295	0.299	0.303	0.307	0.31	0.314	0.318	0.322	0.326	0.33	0.33	0.0386
9.33	0.334	0.338	0.342	0.346	0.35	0.354	0.358	0.362	0.366	0.371	0.371	0.0411
9.34	0.375	0.379	0.383	0.388	0.392	0.396	0.401	0.405	0.41	0.414	0.414	0.0437
9.35	0.419	0.423	0.428	0.432	0.437	0.441	0.446	0.451	0.455	0.46	0.46	0.0462
9.36	0.465	0.47	0.474	0.479	0.484	0.489	0.494	0.499	0.504	0.509	0.509	0.0488
9.37	0.514	0.519	0.524	0.529	0.534	0.539	0.544	0.549	0.555	0.56	0.56	0.0514
9.38	0.565	0.57	0.576	0.581	0.586	0.592	0.597	0.603	0.608	0.614	0.614	0.0541
9.39	0.619	0.625	0.63	0.636	0.642	0.647	0.653	0.659	0.664	0.67	0.67	0.0567
9.40	0.676	0.682	0.688	0.693	0.699	0.705	0.711	0.717	0.723	0.729	0.729	0.0594
9.41	0.735	0.741	0.747	0.754	0.76	0.766	0.772	0.778	0.785	0.791	0.791	0.0621
9.42	0.797	0.804	0.81	0.817	0.823	0.829	0.836	0.842	0.849	0.856	0.856	0.0648
9.43	0.862	0.869	0.875	0.882	0.889	0.896	0.902	0.909	0.916	0.923	0.923	0.0675
9.44	0.93	0.937	0.943	0.95	0.957	0.964	0.971	0.978	0.986	0.993	0.993	0.0702
9.45	1.00	1.01	1.01	1.02	1.03	1.04	1.04	1.05	1.06	1.07	1.07	0.0729
9.46	1.07	1.08	1.09	1.10	1.10	1.11	1.12	1.13	1.13	1.14	1.14	0.0757
9.47	1.15	1.16	1.16	1.17	1.18	1.19	1.20	1.20	1.21	1.22	1.22	0.0785
9.48	1.23	1.23	1.24	1.25	1.26	1.27	1.28	1.28	1.29	1.30	1.30	0.0812
9.49	1.31	1.32	1.32	1.33	1.34	1.35	1.36	1.37	1.38	1.38	1.38	0.084
9.50	1.39	1.40	1.41	1.42	1.43	1.44	1.44	1.45	1.46	1.47	1.47	0.0868

# Data Review Status

Site	Approved	Reviewed	In Review
Nanoose Creek			RC in development
Walley Creek			2026-04-15
Tsolum River	2023-11-27		2025-10-10
Grandon Creek	2024-01-26	2025-05-02	
Beach Creek	2024-01-26		2026-05-07
Cook Creek	2024-02-02		
Departure Creek	2025-01-31		
Morrison Creek	2025-04-11		
Wilfred Creek	2025-06-23	2025-09-17	
Cottle Creek	2025-10-20		

# Data Roundup

## Beach Creek

- Great high flow mmt 2026-01-30 to validate upper end of RC#2.00 and extend RISC C grade

## Grandon Creek

- RC#1.00 stable for 2025 mmts

## Cook Creek

- RC#4.00 stable, tricky low flow mmts

## Wilfred Creek

- RC #1.00 stable with high flow mmt on 2024-12-19 to valid upper end of curve and RISC C extension (RC#1.10)
- Further extension and possible refinement with mmt on 2026-03-18

## Tsolum River

- RC#3.00 stable, great RE% (-9 to 8% for 2024/25 mmts)

# Data Roundup

## Morrison Creek

- RC#1.00 stable, movement of staff gauge and GC likely
- Large logs on control during Nov-25 mmts (good photos to verify)

## Walley Creek

- Unstable staff gauge, average GC -0.005m, great field notes in Feb 25 indicating when movement likely occurred
- Site improvements to staff gauge installation in Apr-26

## Departure Creek

- Mmts plotting right (scour?), great control cleaning notes on 2025-07-10

## Cottle Creek

- RC#1.00 stable, great high flow mmt on 2026-01-12 indicating possible refinement of upper end

## Nanoose Creek

- Good clear mmts for curve development!