



# Brooklyn Creek Watershed Society

AGM 2024  
(October 15)



## **AGM 2024 Agenda:**

1. Welcome, and introductions
2. Adoption of the agenda.
3. Review of past 12 month period
4. 2023/24 Financial Report.
5. Adoption of the Financial Report
6. Election of Officers.
7. Future directions for BCWS
8. Adjourn

# Tire Wear Toxins Study – Background

- BCWS was proactive in responding to new research back in 2022 that indicated that tire wear toxins were acutely toxic to young coho.
- In response, we worked with Current Environmental to address possible mitigation options to reduce impacts.
- A positive result was an improved stormwater drain that uses best practices before road runoff enters the stream at the Balmoral crossing, just installed.





# Tire Wear Toxins Study – April 29-30 BCCCF Workshop



- The BC Conservation Foundation (BCCF) created a broad-ranging coalition of streamkeepers' groups such as ours to coordinate monitoring of stream crossings for tire wear toxins.
- BCWS participated in this study and contributed 64 water samples.
- Vancouver Island University conducted the analyses and produced sophisticated tools for the analyses of the samples that were provided.





# Tire Wear Toxins Study -- Monitoring



Tire Wear Toxins

Daily Occurrence

Point Source

Data Interrogation

[Tire Wear Toxins Website](#)



BRITISH COLUMBIA  
CONSERVATION FOUNDATION

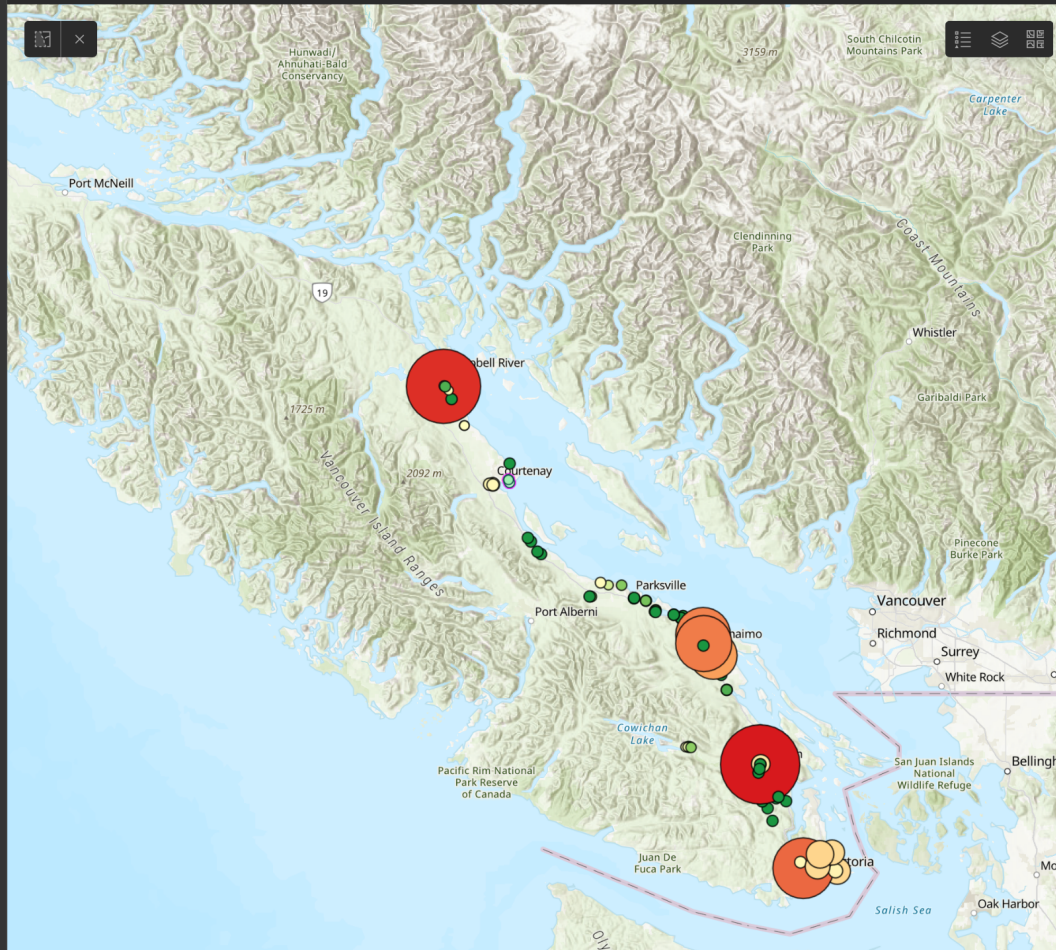
**Tire Wear Toxins**  
1698 Samples Analyzed

Select a Watercourse  
No data

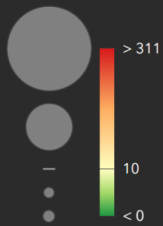
6-PPDQ Concentration Per Day

2023/10/08	6-PPDQ: 7 ng/L
2023/10/09	6-PPDQ: 13 ng/L
2023/10/11	6-PPDQ: not detected
2023/10/31	6-PPDQ: not detected
2023/11/02	6-PPDQ: 7 ng/L
2023/11/03	6-PPDQ: not detected
2023/11/29	6-PPDQ: not detected
2023/11/30	6-PPDQ: 11 ng/L
2023/12/01	6-PPDQ: not detected
2024/01/16	6-PPDQ: not detected

Map displays maximum 6-PPDQ concentrations



Tire Toxicant 6-PPDQ Concentration (ng/L)



Total Samples For This Site  
**1,631**

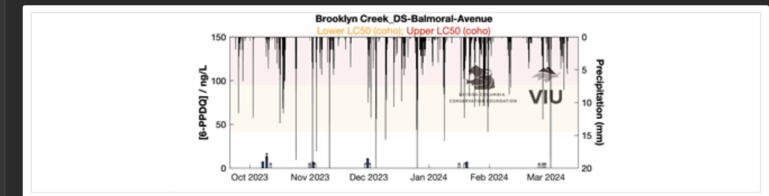
Esri, USGS | Esri Canada, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NRCAN, Parks Canada

Powered by Esri

Tire Toxicant Sample Locations (Max 6-PPDQ)

Tire Toxicant Sample Locations (Mean 6-PPDQ)

2 of 4



Graph

How to Interpret Graph

12 of 29

Brooklyn Creek\_DS-Balmoral-Avenue - 2023-11-29, 10:16 AM





# Tire Wear Toxins Study – Next Steps?

- Results so far indicate that 6 PPD-Q concentrations at Brooklyn Creek road crossings were not a major concern for lethal impacts – at least compared with heavier traffic roads on the island. So-called sub-lethal impacts are as yet not well understood.
- We have developed a pretty good picture of how this pollutant affects Brooklyn Creek. However, like most groups, we found that we had missed the fall peak run-off in 2023.
- Our group dealt with that deficiency in 2024 by sampling a rain event last month (thanks to Alan and Dave).
- Our Board is recommending that now we have addressed the sampling gap, and we focus our activities elsewhere in the coming year.

# Pacific Salmon Foundation (PSF) Grants 2024



- We rely on funding from the PSF and other donors for our stream restoration work at Birkdale Farm
- With Current Environmental and the Town of Comox, we added a second in 2024 project involving streamside erosion control, trail re-routing, and replanting.

	Requested	Awarded	Percent
Mac Laing Greenway Stabilization	\$15,025.00	\$14,325.00	95
Year 3 Birkdale Farm	\$32,120.00	\$31,420.00	98
<b>Total</b>	<b>\$47,145.00</b>	<b>\$45,745.00</b>	

- We were successful for both grants. The amount awarded for 2024 for Birkdale Farm restoration work is a substantial increase from 2023 (asked for \$24,040)



# Work Progress Using the PSF funds (supplied by CE)



Both Brooklyn projects went well and are pending completion this October. Summary and next steps for each are as follows:

## **Birkdale Farm**

Next steps: Riparian planting and invasive management scheduled for Oct 15 - 17

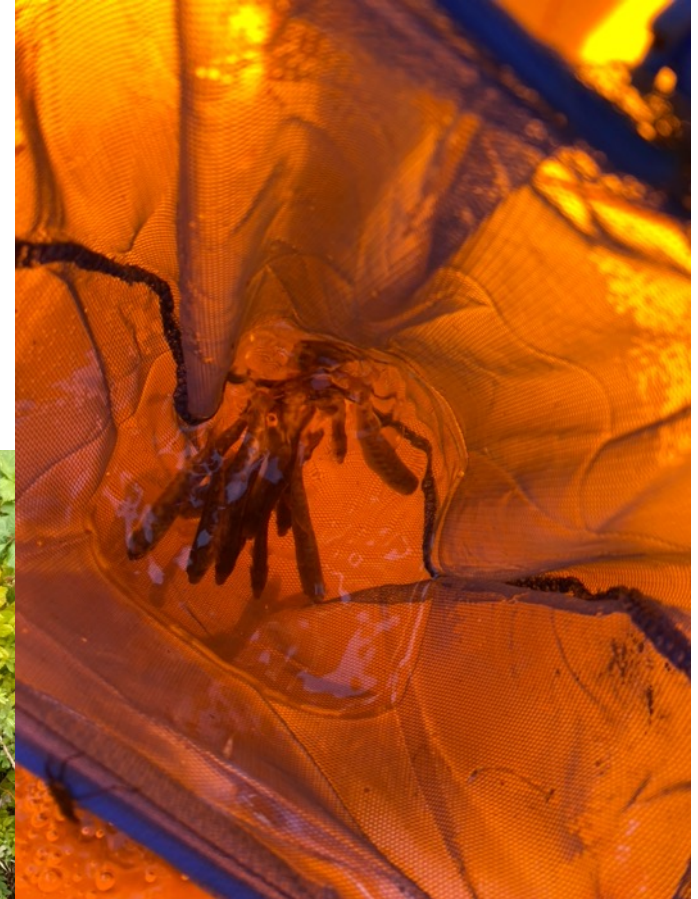
Summary: Year 3 of 4 of restoration completed at the farm. 4 riffles were constructed and approximately 200 m of channel were restored, including removal of bedload accumulation, supplementing with spawning gravels, installing woody debris and removal of invasive blackberry in the riparian area. BCWS Volunteers were instrumental in the weeks leading up to the work with relocating fish upstream of the area of proposed construction. We (CE) have not crunched the numbers yet but juvenile coho captures were much higher than in years previous, possibly a testament to the restoration work completed in recent years.

## **Lower Brooklyn Greenway trail realignment with Town of Comox**

Next steps: Trail realignment and riparian planting scheduled for Oct 7-11.

Summary: Erosion protection and restoration of approximately 100 m of channel. Bank armoring, two riffles, woody debris placement and trail realignment was completed in an area susceptible to major erosion. Spawning and rearing habitat in this reach was created and improved while revamping trail safety and access.

# Birkdale Farm Stream Restoration – Volunteer Work





# Birkdale Farm Stream Restoration Before and After





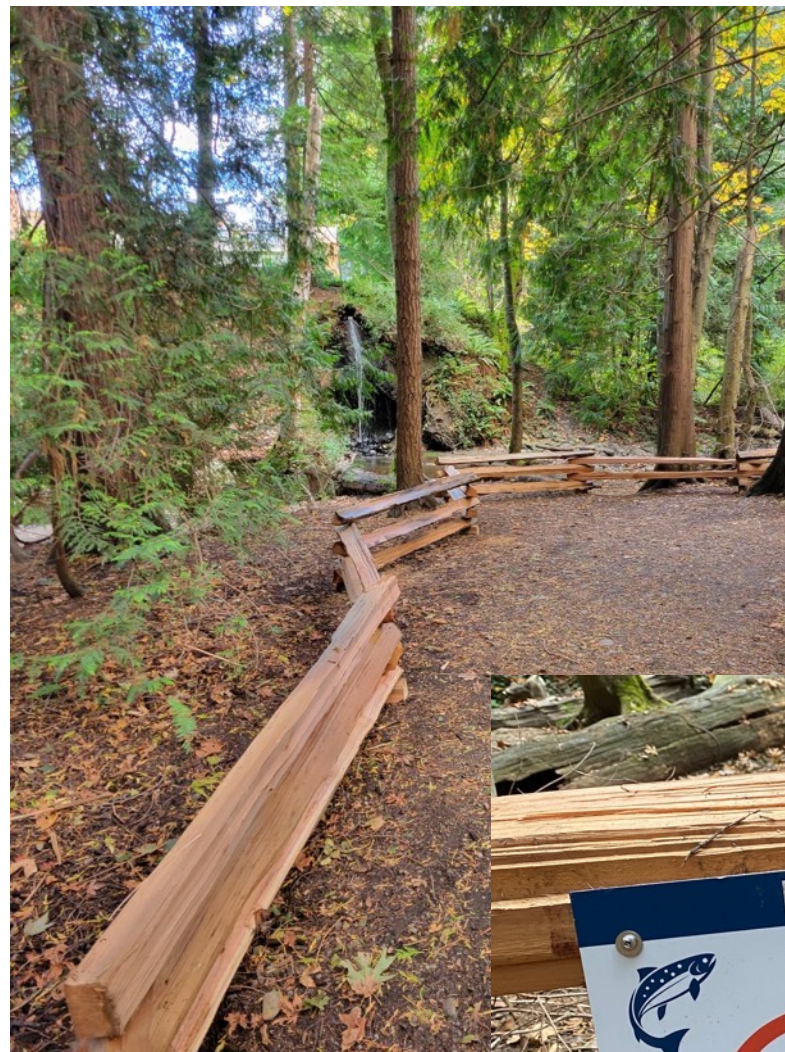
# Mac Laing Bank Stabilization, LWD and Riffle Placement





# Advocacy

- We enjoy excellent relations with Town of Comox Parks, and are able to advocate for improvements, such as signage and split rail fencing protecting stream and riparian areas.
- Gary Guthrie has been very active with meeting developers of large scale residential projects in the upper BC watershed and ensuring they are aware that a salmon bearing stream is nearby.
- As an organization, we have advocated for the recognition of Brooklyn Creek in the Comox Parks and Recreation Master Plan.





# Streamkeepers' Course



- As a thanks to a few of our hard-working volunteers, the Board decided to pay the fees for them to participate in the recent Streamkeepers' Course, offered through Project Watershed.





# Smolt Counts



- A lot of interest in smolt counts this year, and a new online booking system set up by Alan facilitated involvement.
- Howard (and his truck!) and other volunteers were again instrumental in getting the job done.

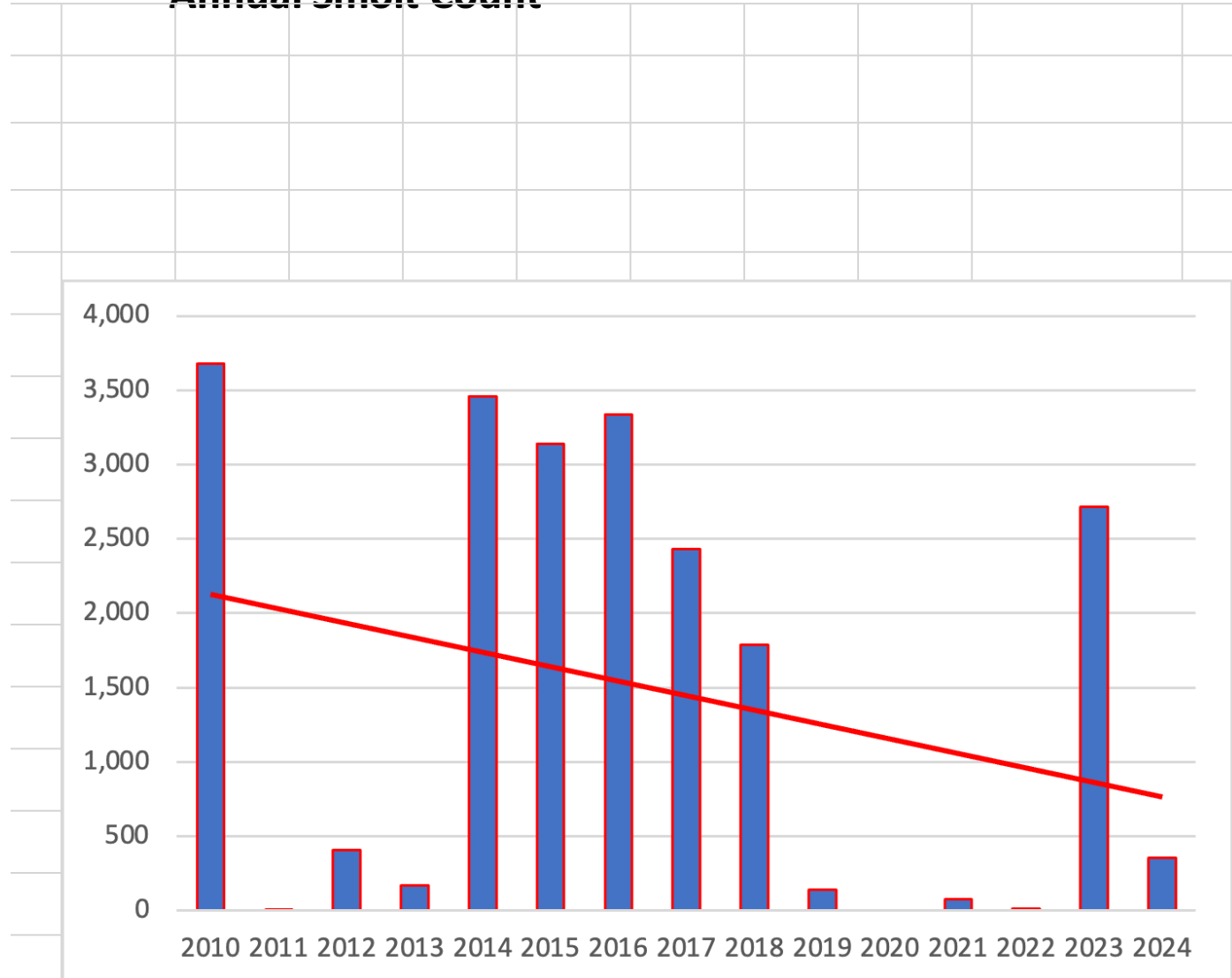


# Smolt Counts

## Brooklyn Creek Watershed Society Annual Smolt Count



- Gary handled the compilation of the smolt counts, and produced the following graph comparing our counts over time.
- While we had fewer smolts this year compared with last year, we had an unusually large count of fry – perhaps a positive sign for next spring’s count.





# Public Outreach

- Alan and Carl participated in the River Never Sleeps event, Fanny Bay.
- We hosted a Volunteer Appreciation prior to the smolt count this year, which was well attended.
- I gave a talk on Pacific salmon at the Puntledge Hatchery for Comox Valley Nature, and have a short course on Pacific Salmon planned for Eldercollege likely in February.





# Other news...



- Recently, we received a very generous donation of \$5000 from the Alan John Ferguson Fund, held at the Vancouver Foundation. This was unsolicited, and came as a pleasant surprise!
- Unless there are any questions on the material I presented, this would be a good point to review the financial report for the society. Carl Graves (our outgoing Treasurer) prepared this summary, and we owe him thanks for continuing in this role even while he transitioned to Victoria.

# Looking ahead for 2024/2025...



- We have some financial latitude to do additional work (perhaps 5 K). We could seek matching funds from the Pacific Salmon Foundation to:
  - Replace smolt box with camera system for counting adults
  - Monitor flow levels over the coming years in the upper portion of the creek.
  - Identify and map cool water refugia for low flow months. Are there areas where riparian vegetation need continued restoration to provide shade and food for young salmon, beyond what we are already doing?
  - Invasive plant control
- Any of the above ideas would require development, and some time if we wished to develop a proposal for funding. Please give these ideas some thought and if you want to pursue these (or others!), let the Board know.