



ONTARIO  
RIVERS  
ALLIANCE



Izaak Walton  
Fly Fishing Club



Trout Unlimited Canada



Greg Clark Chapter

15 March 2023

Mayor Michael Dehn,  
Town of Erin  
By email: Michael.Dehn@erin.ca

Nick Colucci, Director  
Infrastructure Services & Engineering  
Town of Erin  
By email: Nick.Colucci@erin.ca

Claudio Micelli, Senior Project Manager  
WSP Canada  
By email: Claudio.Micelli@wsp.com

Re: WSP Presentation on the Effluent Cooling System  
Erin Water Resource Recovery Facility

Dear Sirs:

The Coalition for the West Credit River (Coalition) is writing to thank the Town of Erin for our 8 March 2023 meeting and WSP's presentation on the effluent cooling system alternatives evaluation for the Erin Water Resource Recovery Facility (WRRF). We also thank you for agreeing to share your presentation with us. The Coalition's presentation on the results of our 2022 stream survey is attached.

The Effluent Cooling System and its detailed Monitoring/Operation Plan were not included in the Municipal Class Environmental Assessment Study Report (ESR), and our concerns over the adequacy and efficacy of the proposed cooling system remain. We recommend that an addendum to the ESR be considered to capture these changes.

Therefore, the Coalition is formally requesting the opportunity to provide meaningful input into the detailed design of both the Effluent Cooling System and the draft Monitoring/Operation Plan.

Consequently, we further request the following:

1. A documented assessment and rationale for choosing the preferred option of a water-based effluent chiller.
2. The effluent cooling system design brief, as submitted to MECP.
3. Confirm whether all tanks will be shaded, including the primary clarifiers, bioreactors and secondary clarifier tanks.
4. Explain the rationale for only testing a 30-day continuous operating period for the effluent cooling system when data the Coalition has collected and shared has revealed elevated effluent temperatures at local facilities have persisted beyond a 30-day condition. The effluent cooling system must be capable of handling increasing temperatures over longer periods with the progression of climate change.

The Coalition recommends investigating effluent temperature monitoring across the entire treatment stream in other local facilities to determine any temperature gradients that need to be addressed (Orangeville would be a good example). The Coalition has plans to continue our effluent temperature monitoring at four wastewater plants in Wellington, Dufferin and Halton again this summer.

Again, thank you for the opportunity to meet and for agreeing to share the WSP presentation with the Coalition. We look forward to your response.

Respectfully,



Judy Mabee  
Chair, Coalition for the West Credit River  
Judy.Mabee@gmail.com  
416-670-3879

Attachment

Cc: Aziz Ahmed, P.Eng., MECP – Aziz.Ahmed@ontario.ca  
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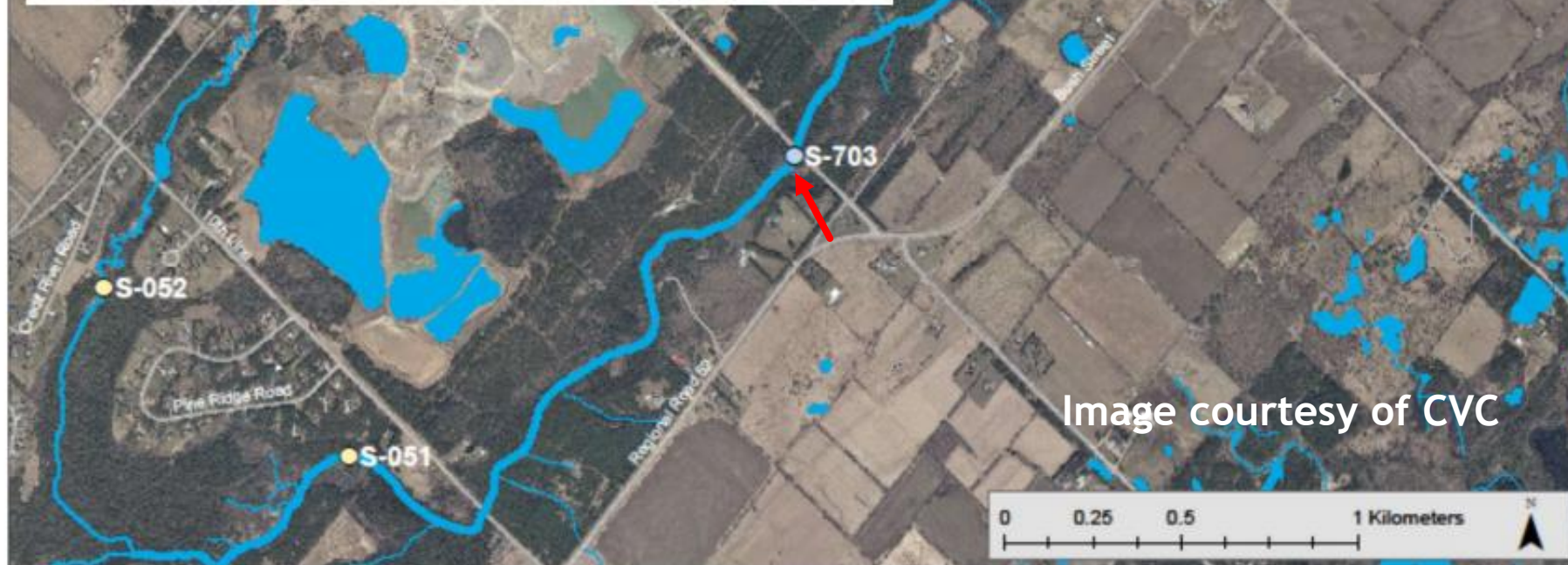
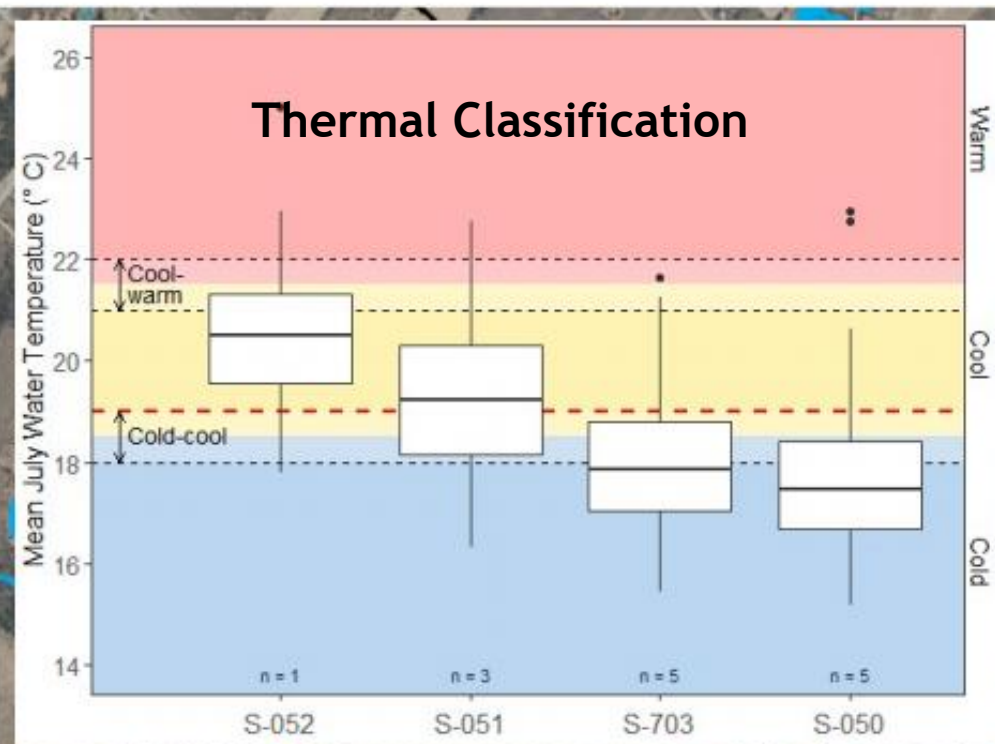
# Coalition for the West Credit River

A community of organizations collaboratively involved with issues surrounding the proposed Town of Erin Wastewater Treatment Plant (Erin WWTP) and the health of the West Credit River. Formed in November of 2020 to address the Erin WWTP.

Coalition is made up of the following:

- ▶ Belfountain Community Organization (Ward 1 Caledon)
- ▶ West Credit River Watch
- ▶ Izaak Walton Fly Fishing Club
- ▶ Trout Unlimited Canada - Greg Clark Chapter
- ▶ Ontario Streams
- ▶ Ontario Rivers Alliance

Representatives of these organizations live in Erin, Caledon, Kitchener, Scarborough, Gananoque, Sudbury, Stratford and Toronto.





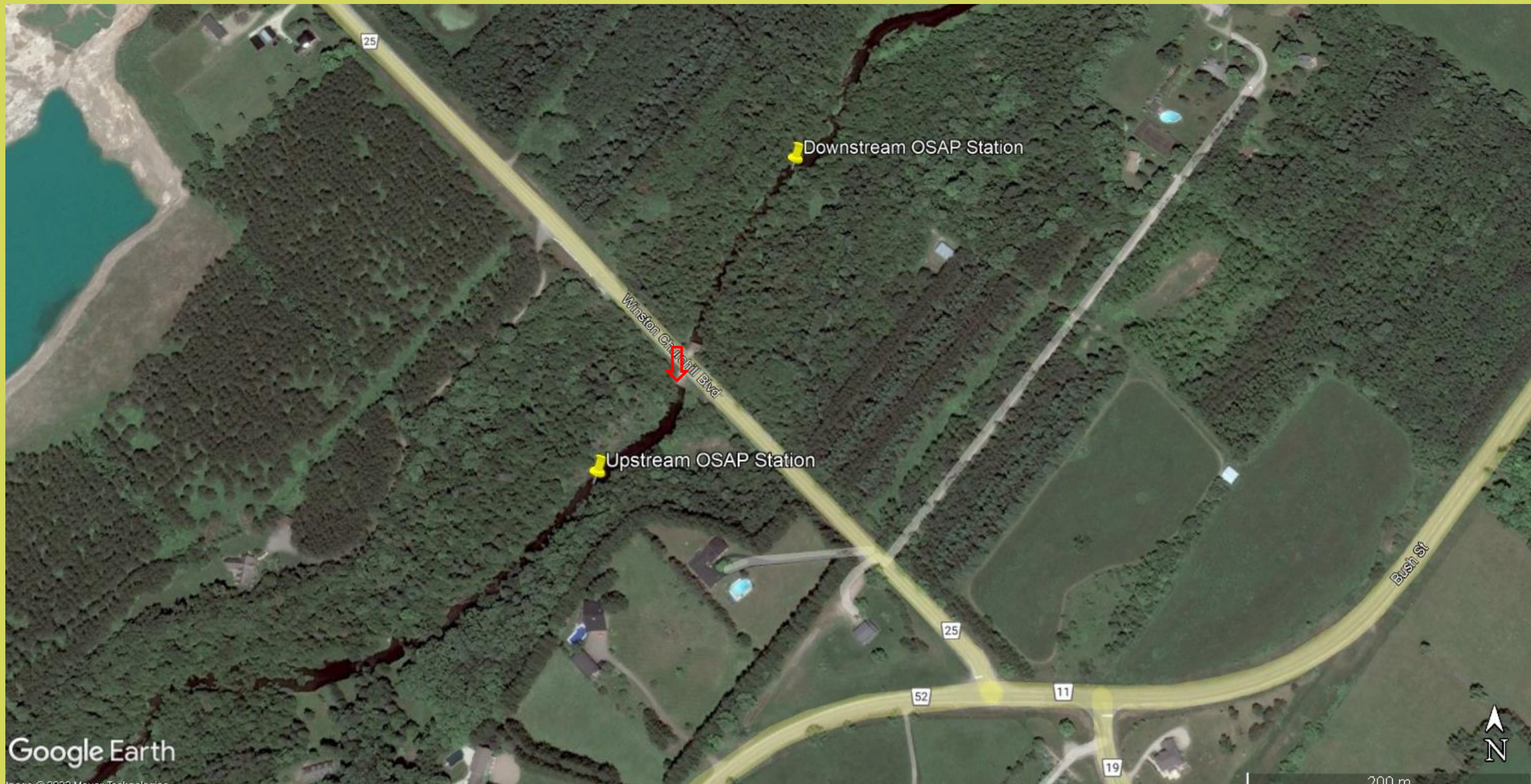




# 2022 OSAP Surveys

## Ontario Stream Assessment Protocol:

- ▶ Provincial aquatic survey protocol
- ▶ Surveys completed by trained individuals
- ▶ Data warehoused through COMAP at the University of Waterloo
- ▶ Two stations completed in September 2022
  - ▶ Upstream of Winston Churchill
  - ▶ Downstream of Winston Churchill
- ▶ Three modules completed per station
  - ▶ Fish community
  - ▶ Benthic Invertebrates
  - ▶ Channel Structure
- ▶ Metrics represent baseline condition of aquatic ecology







## Fish Community Summary

Date Report Printed (yyyy-mm-dd): 2023-01-19

Stream Name: West Credit	Stream Code: WC1	Site Code: WCUS	Year: 2022	Sample: 1
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OSAP: No (Sampling is not OSAP)

Sample Type: (Electro) Fish Sampling

Date of Assessment (yyyy-mm-dd): 2022-09-23

Project(s): WCWTM (West Credit Water Treatment Outfall Monitoring Project)

Organization(s): Ontario Streams

Crew leader: DF D Forder

Crew: AO, EB

Field ID (Cert level): WY W Young ( 2)

Lab ID (Cert level):

Recorder: WY

Run: 1 of 1	Start Time: 9:45	Shocker Seconds: 12125	Effort (Seconds/m <sup>2</sup> ): 6.4
	Stop Time: 14:15	Usable Area (m <sup>2</sup> ): 1888.7	Site length (m): 156.5 ...from Channel Morphology (2022/1)

Summary of fish captured for which weight data was available, allowing estimation of biomass.

Species Code	Common Name	Scientific Name	Number Caught	Number Caught / 100 m <sup>2</sup>	Weight Caught (gm.)	Weight (gm.) / 100 m <sup>2</sup>	Estimated Biomass (g/100 m <sup>2</sup> ) (Only calculated for salmonids.)	Biomass standardized to effort of 15 sec/m <sup>2</sup> (g/100 m <sup>2</sup> )
76	Rainbow Trout	Oncorhynchus mykiss	9	0.48	715	37.86	86.23	96.47
80	Brook Trout	Salvelinus fontinalis	228	12.07	3589	190.02	461.76	516.55
141	Central Mudminnow	Umbra limi	1	0.05	8	0.42	(N/A)	(N/A)
163	White Sucker	Catostomus commersonii	40	2.12	3213	170.11	(N/A)	(N/A)
198	Common Shiner	Luxilus cornutus	8	0.42	29	1.54	(N/A)	(N/A)
208	Bluntnose Minnow	Pimephales notatus	1	0.05	4	0.21	(N/A)	(N/A)
211	Longnose Dace	Rhinichthys cataractae	20	1.06	66	3.30	(N/A)	(N/A)
212	Creek Chub	Semotilus atromaculatus	14	0.74	372	19.7	(N/A)	(N/A)



## Fish Community Summary

Date Report Printed (yyyy-mm-dd): 2023-01-19

Stream Name: West Credit	Stream Code: WC1	Site Code: WCDS	Year: 2022	Sample: 1
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OSAP: No (Sampling is not OSAP)

Sample Type: (Electro) Fish Sampling

Date of Assessment (yyyy-mm-dd): 2022-09-28

Project(s): WCWTM (West Credit Water Treatment Outfall Monitoring Project)

Organization(s): Ontario Streams

Crew leader: DF D Forder

Crew: AO, CF, WY

Field ID (Cert level): WY W Young (2)

Lab ID (Cert level):

Recorder: WY

Run: 1 of 1	Start Time: 10:00	Shocker Seconds: 4303	Effort (Seconds/m <sup>2</sup> ): 9.3
	Stop Time: 11:40	Usable Area (m <sup>2</sup> ): 462.2	Site length (m): 46 ...from Channel Morphology (2022/1)

Summary of fish captured for which weight data was available, allowing estimation of biomass.

Species Code	Common Name	Scientific Name	Number Caught	Number Caught / 100 m <sup>2</sup>	Weight Caught (gm.)	Weight (gm.) / 100 m <sup>2</sup>	Estimated Biomass (g/100 m <sup>2</sup> ) (Only calculated for salmonids.)	Biomass standardized to effort of 15 sec/m <sup>2</sup> (g/100 m <sup>2</sup> )
76	Rainbow Trout	Oncorhynchus mykiss	2	0.43	169	36.56	80.82	83.8
80	Brook Trout	Salvelinus fontinalis	56	12.12	1128	244.05	576.62	597.85
163	White Sucker	Catostomus commersonii	9	1.95	233	50.41	(N/A)	(N/A)
208	Bluntnose Minnow	Pimephales notatus	2	0.43	3	0.65	(N/A)	(N/A)
211	Longnose Dace	Rhinichthys cataractae	1	0.22	1	0.22	(N/A)	(N/A)
212	Creek Chub	Semotilus atromaculatus	1	0.22	17	3.68	(N/A)	(N/A)
281	Brook Stickleback	Culaea inconstans	2	0.43	2	0.43	(N/A)	(N/A)
313	Pumpkinseed	Lepomis gibbosus	1	0.22	8	1.73	(N/A)	(N/A)



# Benthic Invertebrates

Hilsenhoff Biotic Indicator (HBI)		Water Quality (Degree of Organic Pollution)
Upstream	4.2	Very Good (Possible slight organic pollution)
	5	Good (Some organic pollution probable)
Downstream	4.8	Good (Some organic pollution probable)
	5.3	Fair (Fairly substantial pollution likely)

# Channel Structure

- ▶ A series of measures that quantify physical habitat
- ▶ 10 transects per station
- ▶ Measures instream structure and vegetation

Homogeneity Score: 0.632  
Substrate Quality Rating: GL (Low quality gravel bed stream)  
Width:Depth ratio: 41.3 : 1  
WDR Score: 0.1  
Bank Stability Index Average (across both banks, all transects): .68  
Sediment Sorting Index: 104.21  
SSI Score: 0.1  
Sediment Transport Potential: 600  
STP Score: 0  
Habitat Stability Score (aka Channel Stability Score): 0.832

Upstream

Homogeneity Score: 0.767  
Substrate Quality Rating: GL (Low quality gravel bed stream)  
Width:Depth ratio: 37.1 : 1  
WDR Score: 0.2  
Bank Stability Index Average (across both banks, all transects): .60  
Sediment Sorting Index: 68.84  
SSI Score: 0  
Sediment Transport Potential: 980  
STP Score: 0  
Habitat Stability Score (aka Channel Stability Score): 0.967

Downstream





Photo: Steven Noakes