

# Erin Wastewater Treatment Plant

## Coalition for the West Credit River

27 January 2022



Trout Unlimited Canada

ONTARIO  
RIVERS  
ALLIANCE



Greg Clark Chapter



Izaak Walton  
Fly Fishing Club



# Judy Mabee, President Belfountain Community Organization

Coalition for the West Credit River

# 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.

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

# Coalition Goals

- ▶ Working to address:
  - ▶ Erin WWTP and its potential to impact water quality of the West Credit River
  - ▶ Conservation of West Credit River Brook Trout
  - ▶ Protection and improvement of habitat and stream resilience

# Erin Wastewater Treatment Plant Project

- ▶ Communal wastewater treatment plant servicing the villages of Erin and Hillsburgh
- ▶ Plant to be situated on the north side of Wellington Rd. 52 and west of 10<sup>th</sup> Line
- ▶ Treated sewage effluent to be discharged into the West Credit River
  - ▶ West side of Winston Churchill Blvd directly into Ward 1 of Caledon
- ▶ Current population is approximately 4,500 and projected growth is over 24,000
- ▶ Effluent discharged at full build-out estimated to be 1/3 of base flow during drought periods



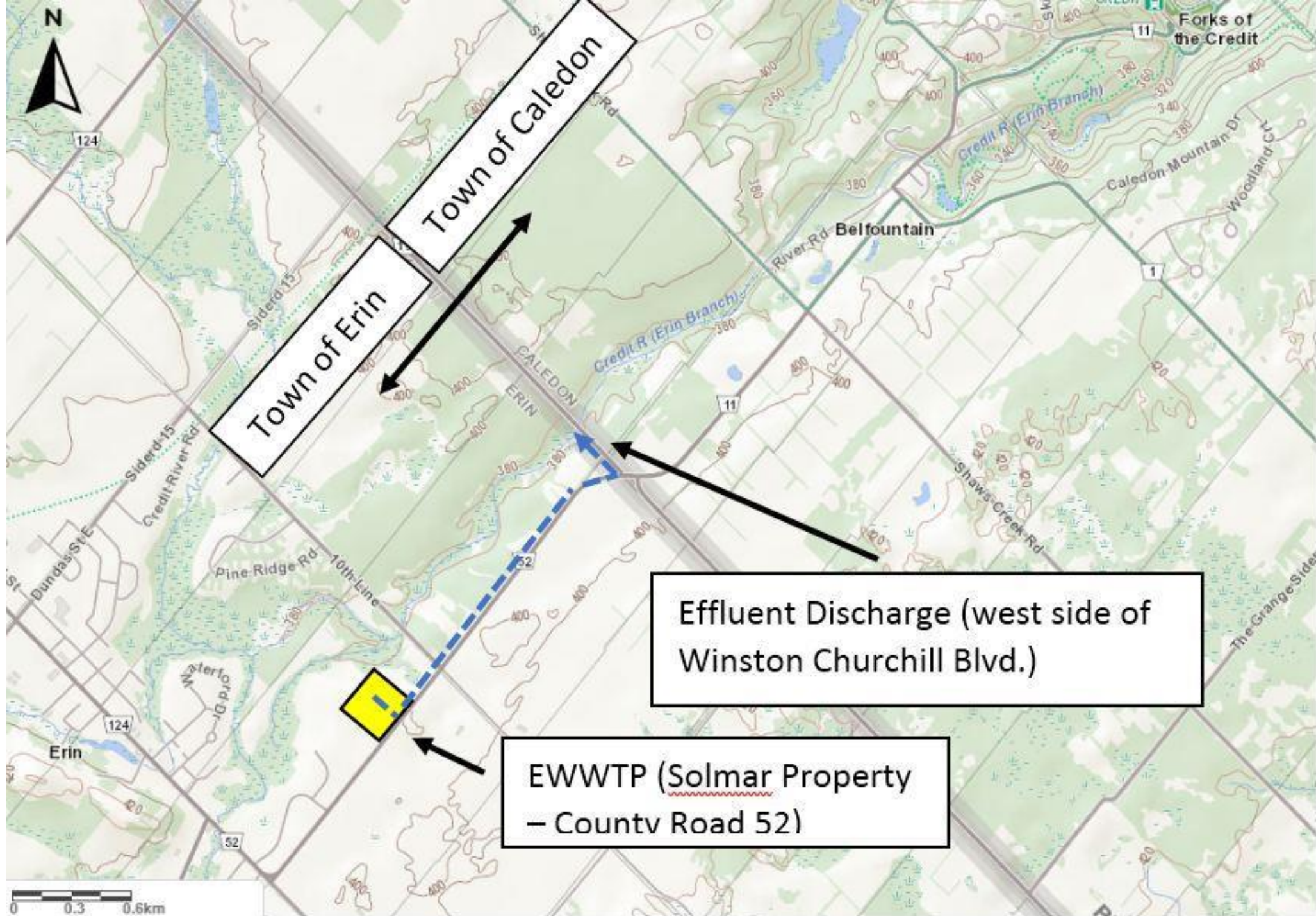






Photo: Steven Noakes



# Mark Heaton, Senior Biologist

## Ontario Streams

Coalition for the West Credit River



# Brook Trout are a Sentinel Species - a Canary in the Coal Mine

- ▶ A highly sensitive species requiring cold and pristine waters
- ▶ Survival relies on temperatures no greater than 19°C to 20°C for any sustained period.
- ▶ Temperatures below 9°C are needed to spawn.
- ▶ Optimum growth relies on temperatures between 13 and 16°C
- ▶ Upper incipient lethal temperature is 25.3°C
- ▶ 7-day maximum mean tolerance temperature of 22.3°C
- ▶ Brook Trout numbers over last 50 years in Ontario have undergone significant decline





Photo: Steven Noakes

Coalition for the West Credit River



# West Credit River Brook Trout

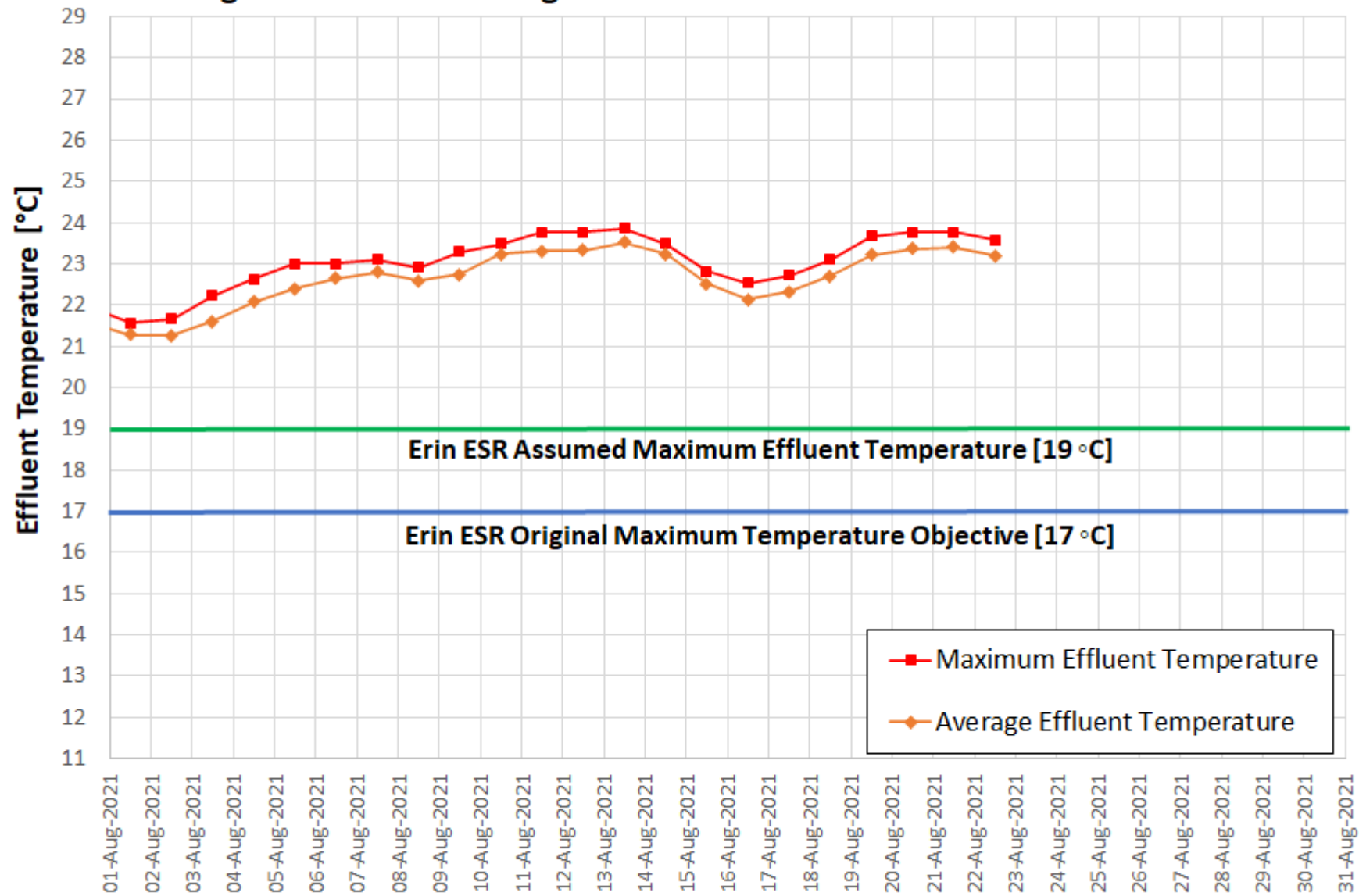
- ▶ One of the last remaining native Brook Trout populations in Southern Ontario
- ▶ Best Brook Trout populations are located downstream of Erin Village through to Belfountain village in Caledon
- ▶ Some of the most productive Brook Trout spawning reaches in the entire Credit River watershed
- ▶ ESR reported Brook Trout spawning sites were extremely abundant in study reach
- ▶ Study area provides habitat for this critical life stage

# Downstream Impact of Current Design

- ▶ 7.2 million liters of sewage effluent released daily into Brook Trout habitat
- ▶ Potentially toxic and oxygen depleted plume could extend into nursery habitat
- ▶ As water temperature and pH increase so does toxicity of ammonia on Brook Trout
- ▶ Chloride concentration will be chronically toxic at full build out
- ▶ Brook Trout habitat immediately downstream of effluent discharge will be uninhabitable
- ▶ Consultants report effluent temperature will not increase beyond 19 °C
- ▶ Data from other local sewage plants contradict this and show summer effluent temperatures will exceed 23 °C



**Figure 5. Average and Maximum Effluent Temperature of the Georgetown WWTP in August 2021**



# Project Planning Errors

- ▶ MECP approved the ESR although many comments were missing in the report
- ▶ Agencies agreed a maximum effluent temperature limit and design objective should be included in the final ESR
  - ▶ No limits or design objectives were included in the final ESR
  - ▶ Used only 1 year of data from a cooler year to assess thermal impact
  - ▶ Thermal Assessment estimated effluent temperature would significantly affect stream temp
- ▶ MNRF document recommending key mitigation criteria left out of the ESR
  - ▶ Consultant's response to those recommendations also left out of the ESR
- ▶ 10% reduction in stream flow was applied to account for climate change
  - ▶ Yet failed to consider influence of a warming climate on effluent and stream temperatures
- ▶ Stream temperature is crucial given its influence on:
  - ▶ Oxygen depletion and ammonia toxicity
  - ▶ Critically important to Brook Trout survival



# Current Project Status

- ▶ Application for Environmental Compliance Approval has been filed with MECP
- ▶ Detailed design has been completed
- ▶ Land has been secured
- ▶ Town of Erin is advertising for a construction contractor
- ▶ Slated for construction to begin in second quarter of 2022
- ▶ Coalition is asking MECP to recognize:
  - ▶ Effluent discharge temperature threshold of 19°C
  - ▶ Stringent water quality monitoring program
  - ▶ Adaptive Management Plan to address potential brook trout and water quality issues relating to effluent discharge into Caledon

# How Peel Region Can Help

- ▶ Write a letter to the Minister of Environment, Conservation and Parks supporting the use of the Coalition's Monitoring and Adaptive Management Plan (AMP) recommendations in their approval of the waste water plant (attached)
- ▶ Financially support the Credit Valley Conservation in the acquisition and operation of a Real-Time Water Quality Monitoring Station immediately downstream of Winston Churchill Blvd., consistent with other stations in their watershed network