16 March 2022

Nick Colucci, Director
Infrastructure Services & Engineering
Town of Erin
5684 Trafalgar Road
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By email to Nick.Colucci@erin.ca

Re: Erin Water Resources Recovery Facility
10 February 2022 Delegation to the Peel Region

Dear Mr. Colucci:

The Coalition for the West Credit River (CWCR) watched your delegation to the Region of Peel with great interest. Michelle Albert, WSP, opened her presentation with, "*we have committed to the Town of Erin, three basic overarching principles which is, the protection of the environment remains at the forefront of everything we are doing at this wastewater treatment plant; a sustainable solution to an existing system that is unsustainable; and that there would be stakeholder and community engagement throughout the project.*" Ms. Albert also said, "*the Town of Erin is committed to ensuring, protecting and managing the natural resources of the West Credit River ecosystem*".

If we didn't know the facts, we might have been encouraged by this commitment. However, in reality, if the protection of the environment was at the forefront of the Town of Erin's commitments, it would have ensured an effluent temperature limit of 19°C as was recommended by all the regulators. You would have ensured that chillers were included at the outset or provided an alternative location for the outfall location that would not impact on one of the few remaining native Brook Trout populations in Ontario. WSP and the Town would have held a public information session to proudly show stakeholders the WSP design and drawings for the Erin Water Resources Recovery Facility. Instead, the Town of Erin has kept the design closed and away from the public, and the Town of Erin's plan fails to ensure, protect and manage the sustainability of the natural resources of the West Credit River ecosystem.

Councillor Sinclair asked the question, "*what specific measures, if there are negative impacts downstream, you mentioned you are prepared to undertake major structural changes in technology to adjust as the flows increase and the plant is operating? Is that correct?*" You responded, *"Not necessarily major structural changes, I think we have designed the plant to accommodate the maximum flow at full build-out, which could happen in say 20 years, but we have said that we are going to monitor the temperature of the effluent because obviously temperature is a big consideration of construction of this plant, and we are providing a design that could be implemented should the effluent affect the downstream part of the receiving body… there*

are things like chillers; you could put roof structures over tanks, other things like that could be implemented at a later date."

Ms. Albert added, *"We have, during the design process ensured that the power requirements for the plant includes any additional power required for these chillers. We have ensured that we have sufficient space if we need to add the chillers. So, everything is ready if we need to implement, if it's needed. But the issue right now is that we are talking about a plant that we don't know yet what the influent temperature is going to be at the plant, or what the effluent temperature is. So, we're trying to be as responsible as we can, we think some of this data is needed before implementing some of these measures."*

As you know, Brook Trout are a highly sensitive species requiring cold and pristine waters. Adult survival relies on temperatures no warmer than 19°C to 20°C for any sustained length of time. Temperatures below 9°C are needed to spawn, and optimum growth rates rely on temperatures between 13°C and 16°C. Their upper incipient lethal temperature is 25.3°C, with a 7-day maximum mean tolerance temperature of 22.3°C.

The hypothetical future mitigation measures put forward are not something that can be implemented in a few hours, a few days and likely not a few months. When effluent temperatures rise and Brook Trout are heat stressed there may not be time to build roof structures over tanks, or fill the space left for a chiller. Mitigation measures must be in place as soon as the plant is in operation to ensure effluent temperature can be maintained at 19°C or cooler to ensure Brook Trout are not stressed.

One of four wastewater treatment plant effluent outfalls sampled in 2021:

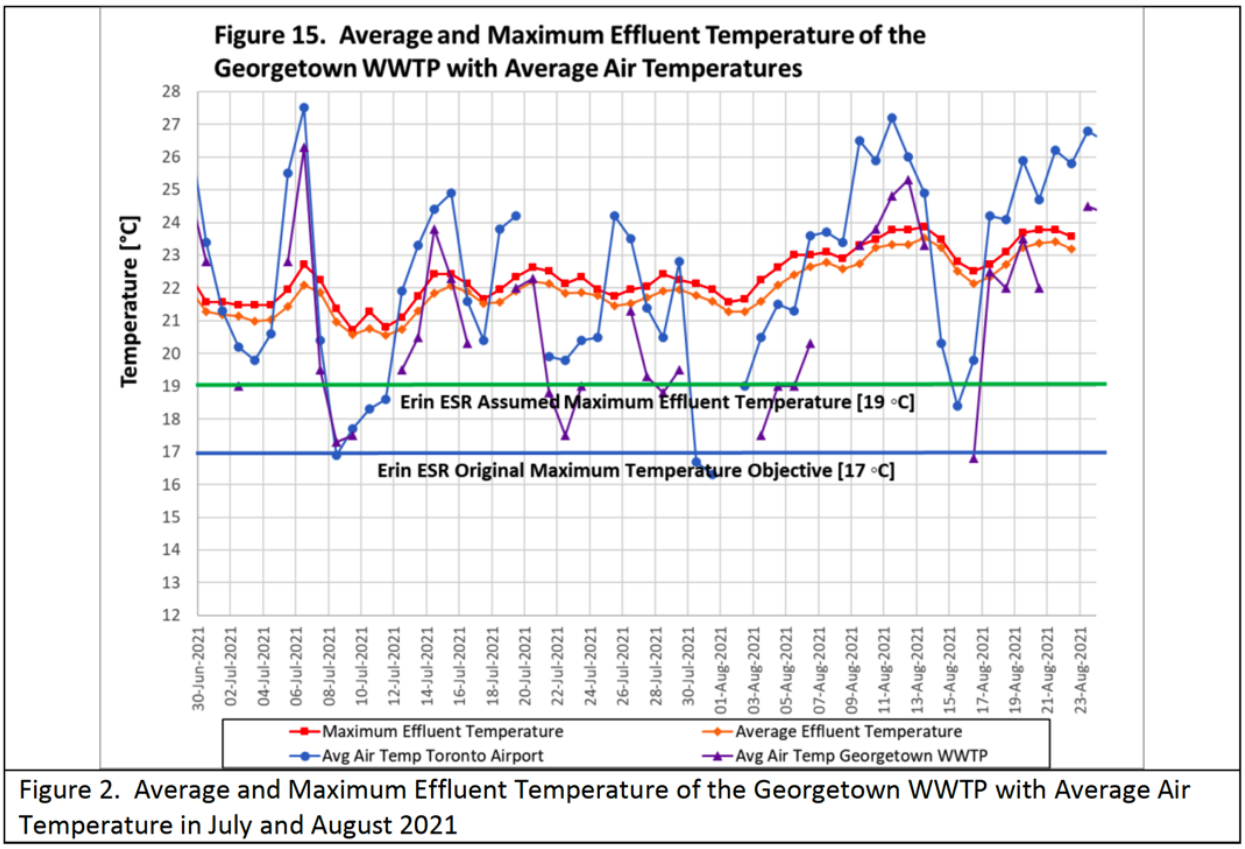

Figure 2. Average and Maximum Effluent Temperature of the Georgetown WWTP with Average Air Temperature in July and August 2021

The above plot is meant to begin to answer Ms. Albert's need for data before implementing any of these key mitigation measures. We would like to share additional effluent temperature data collected by our Technical Committee last summer from the Acton, Orangeville, Elora, and the above Georgetown wastewater treatment plant during the months of July and August. Plots showing the relationship between average ambient air temperature and average and maximum effluent temperature revealed some troubling results.

We are requesting a meeting with yourself, Ms. Albert and Mayor Alls to discuss the results of the data and its implications for the Erin WRRF.

We look forward to your response.

Respectfully,

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