



David R. Donnelly, MES LLB
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March 15, 2021

Mr. Alexandre L'Heurex
CEO
WSP Global Inc.
<Personal information removed>

Montreal, Quebec H3H 1P9

Re: WSP Designs New Sewage Treatment Plant for Erin, Ontario

Dear Mr. L'Heurex,

We represent the Belfountain Community Organization (“BCO”). Belfountain is a village located on the West Credit River a short distance downstream of the Town of Erin (“Erin”). The BCO is a dynamic organization that has recently joined forces with numerous other conservation organizations to raise serious questions regarding the impact of the proposed Erin Wastewater Treatment Plant (“WWTP”) on the West Credit River.

Specifically, we refer to the Ontario Rivers Alliance (“ORA”) technical submission submitted to Erin on June 23, 2020 (link provided in this letter). The conclusions provided in the ORA report appear to compel WSP to advise Erin that, very likely, a *status quo* sewage plant will discharge warm effluent now, and much warmer effluent in the future. This would very likely damage the ecology of the West Credit River.

As a result, the BCO seeks from WSP the following:

- Please advise in writing that you will, or have, reviewed the ORA submission in detail, and that this submission has been forwarded to the lead engineering staff on this project for their review;
- Please advise in writing as to the current design status on this project and that you have taking into account concerns expressed by others (including Credit

Valley Conservation, the Ministry of Natural Resources and Forestry (“MNR”) as well as the ORA) regarding the temperature and chloride content of the effluent;

- Please advise in writing that you have taken the ORA submission into account and will commit to fully evaluate the impacts of climate change on this project; and
- Provide in writing to us that WSP does indeed fully subscribe to the principles of Environmental, Social and Corporate Governance (“ESG”) investing and that WSP will fully apply these ESG principles to the Erin sewage plant design project, including educating Erin Council and staff on the likely adverse impacts of climate change on this project.

Background to the Submission

You may be aware that WSP was awarded the design contract for the Erin WWTP by Erin Council earlier in 2020.

I write to you today with several urgent requests and to provide a short background on the Erin WWTP project. The Municipal Class Environmental Assessment (Class EA) for this project was approved by the Ontario government in 2019 – but serious concerns remain with the environmental impact of this project.

You are no doubt familiar with the use of membrane treatment in sewage treatment plants. This relatively new, breakthrough technology produces high quality tertiary effluent with very low concentrations of phosphorus.

In the case of Erin, membranes are recommended as the central treatment technology to be used in the Erin WWTP.

The original sewage plant design concept (2015) did not include membrane treatment, and available phosphorus dilution in the West Credit River limited the proposed new plant to serve only 6,000 persons with a maximum, average effluent flow of 2,160,000 liters per day. This relatively low flow of treated effluent into the West Credit River was recommended to protect the sensitive fish habitat in the West Credit River, maintain phosphorus levels in the West Credit below the provincial standard of 0.030 mg/l and to provide a reasonable amount of effluent dilution to offset other impacts of the effluent.

However, Erin did not adopt this original recommendation as it prevented the Town from realizing its major, greenfield growth objectives. Notwithstanding the fact that the original sewage plant concept would support a population increase from 4,500 to 6,000 persons, Erin was dissatisfied with a 33% growth rate. In response, Erin hired

new consultants in or around 2017 with the express objective, as far as we understand, to greatly increase the future size of the urban portions of Erin, and thus the Erin WWTP, and in doing so maximized the flow of treated effluent into the West Credit River.

The new consultants preparing the new Class EA switched to an activated sludge process with *membranes as the core technology* to essentially eliminate the natural restriction of phosphorus dilution. The current plan is to now build a much larger sewage plant to release, on average, 7,172,000 litres per day of treated effluent to the West Credit River. This remarkable 330% increase in effluent flow is only matched by a new population equivalent target of over 18,000 people, or a 400% increase in population from the current population of 4,500 persons.

Environmentally, the West Credit River is a very small, especially beautiful, natural river downstream of Erin. The effluent will be released into the heart of this section of river. This river supports one of the last remaining, natural brook trout populations in the entire Credit River watershed. The very best description of the West Credit and the natural brook trout population is best summed up by Erin's own consultants who say numerous times in the most recent Class EA document:

“the most productive brook trout spawning reaches and the best brook trout populations in the West Credit River are located downstream of Erin Village and the longest contiguous brook trout habitat in the Credit River watershed is the West Credit between Erin and Belfountain.”

Brook trout are the only native trout species in Southern Ontario streams and over the last 50 years have undergone a very significant decline. They are a very delicate species requiring very cold and very clean water. Even the slightest human impact can lead to a decline in their population.

WSP has a profound task at hand: to design a sewage plant that discharges an inordinately large volume of effluent into this very small and sensitive stream and yet ensure the brook trout downstream continue to thrive under very critical conditions.

BCO harbours deep concerns with work done to date by the Town of Erin. Specifically, these concerns include:

- 1) As noted, our client has received the very well documented, 40-page submission made to the Town of Erin by the Ontario Rivers Alliance (ORA), a well-respected environmental organization. This submission lays out a number of key concerns that, at best, were not fully dealt with by Erin or the consultants. The following link takes you to the [ORA submission of June 2020 here](#).

We understand the Town of Erin and the Ministry of Environment, Conservation and Parks (“MECP”) have not addressed the ORA submission in any meaningful way. We are also unclear as to whether the ORA document has been provided to WSP. You now have it.

- 2) One of the main concerns of the ORA is that the temperature of the effluent will be significantly higher than purported by Erin’s consultants. Erin’s consultants indicate the summer effluent temperatures will be no warmer than 19° C. Effluent temperatures warmer than 19° C could be at minimum damaging to the brook trout population and at worst fatal to the brook trout population.
- 3) The MECP and the MNRF, as far as we know, identified the effluent temperature as being a key concern right from the start. In fact, the MECP insisted at the beginning of the sewage planning studies that the environmental approval (the ECA) issued by the MECP for the new sewage plant would need to include a written, legally binding, maximum, effluent temperature limit of 19°C with the maximum temperature objective being only 17°C. This was to protect the sensitive brook trout in the West Credit River.
- 4) However, the final Environmental Study Report (“ESR”) prepared by Erin’s most recent consultants first recognized the required effluent temperature limit of 19°C (and the maximum effluent temperature objective of 17°C) but in the final conclusion section inexplicably dropped the temperature limit and objective without any rationale and without any explanation.
- 5) The lack of legal temperature limits would allow the Erin WWTP to discharge very warm effluent to this very small river without enforcement by the MECP. However, high temperature effluents are considered a deleterious substance under the Federal *Fisheries Act*. This is obviously a significant concern that we draw to your attention.

The consultants completing the Class EA were very clear that they felt the effluent would be no warmer than 19°C in the summer. Yet it is my understanding that little documentation to confirm this temperature maximum was provided in the Class EA. The assumption of a maximum effluent temperature of 19°C is repeated at many points in the ESR document. However, if the effluent is actually warmer than 19°C, it would appear to be a source of potential liability, if not under the *Fisheries Act*, then through possible tort or civil action.

The ORA letter provides actual temperature data from other local sewage plants showing summer effluent temperatures already approach 22°C, before considering the impact of future climate change.

- 6) Climate change gets only passing reference in the Class EA. Based on a moderate rate of emission stabilization (discharge model RCP 4.5), the Ontario Government's own projection is that annual, average air temperatures in Southern Ontario will rise by 4°C over the next 50 years. Under this scenario, the ORA estimates that the future, Erin WWTP effluent temperature will rise to 25°C! The West Credit brook trout will be long deceased under this grim scenario.

As a result, I urge you to read the ORA submission. I also urge you to send the ORA submission to your project engineers that are completing this project. I also strongly recommend that the engineers you have on this file are fully conversant with climate change and cold water stream ecology in southern Ontario. We know that WSP can design a functional sewage plant. But the special requirements of the very small West Credit River, and the impacts of climate change on future effluent temperatures, as well as the background temperature of the river, make the Erin WWTP a unique design challenge.

The design of this sewage plant must be special and innovative. My understanding of technical guidelines in general is that they enforce *a minimum standard* but are not meant to dissuade delivery of a much better product. BCO wants WSP to deliver an original, unique and outstanding sewage plant to protect the ecology of the West Credit River.

You will find an impressive list of sewage plant design improvement concepts in the ORA submission. These design innovations may not be widely used but appear practical and relatively straightforward. The ORA innovations also appear cost effective if included now in the design but are likely impossible to add once the plant is built. It would likely be too late for the West Credit River brook trout.

Finally, congratulations on your recent acquisition of Golders Associates for a very substantial sum (\$1.5 billion). There is little doubt that this acquisition will strengthen WSP's earth and environmental engineering capacity.

BCO is favourably impressed by your remarkable interview regarding the acquisition of Golders with Amanda Lang of the Business News Network ("BNN") late last year. I [provide the link to your interview with Amanda Lang of BNN on December 3, 2020.](#)

In the BNN interview, you proclaim WSP's deep commitment to include climate change considerations with your engineering designs. You put on the record WSP's intent to become a world leader in understanding climate change and indeed

educating your clients on the effects of climate change on engineering projects, including a commitment to align with the fundamentals of Environmental, Social and Corporate Governance Investing. This is welcome news to BCO.

As you are aware, the Professional Engineers Code of Ethics requires professional engineers to consider public welfare as paramount, and above their duties to clients of employers. When the principles of ESG investing are combined with the Code of Ethics, it is BCO's opinion that WSP is compelled to advise Erin that, very likely, the effluent from the Erin WTTP as proposed will discharge warm effluent now and much warmer effluent in the future. It is in everyone's best interests to avoid damaging the ecology of the West Credit River, particularly by something as eminently avoidable as warm water from a sewage treatment plant.

This outcome can and should be avoided, with a process that starts with your kind attention to BCO's questions stated above. We look forward to your response.

Please do not hesitate to contact me at ^{<Personal information removed>} or by email at ^{<Email address removed>} should you have any questions or comments concerning this correspondence.

Yours Truly,
<Original signed by>


David R. Donnelly

cc. Client
<Email addresses removed>