



G.D. Jewell
ENGINEERING Inc.

November 4, 2017

2238052 Ontario Ltd.
c/o Kaitlin Corporation
28 Sandiford Drive, Suite 201
Stouffville, Ontario, L4A 1L8

Attn: Mr. Enzo Bertucci
Director, Land Development

Re: Wellington, P.E.C. – Relocation of Lagoon Buffer
G.D. Jewell Engineering Inc. File No. 170-4217

Dear Mr. Bertucci:

Please accept this overview letter and affixed detailed investigation report regarding the review of the minimum required lagoon buffer in relation to the lagoon located at 387 County Road 2 (Belleville Street), Wellington, Prince Edward County.

As detailed in the below investigation report, G.D. Jewell Engineering Inc. has found that the lagoon influence area described by the County can be revised to a 100metre buffer zone from the lagoon edge, based on the MOE Guideline D-2.

This buffer zone will be met at the northern property limit of the proposed residential subdivision considering the lagoon is approximately 230 metres from the northern most point of the proposed residential subdivision project.

If you have any questions, please do not hesitate to contact the undersigned.

Yours Truly,

Bryon Keene, P.Eng.
G.D. Jewell Engineering Inc.

BK/sgH

KAITLIN CORP / LAGOON BUFFER

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BACKGROUND

G.D. Jewell Engineering Inc. (GDJE) was retained by 2238052 Ontario Ltd. to review the minimum required lagoon buffer distance for the lagoon located at 387 County Road 2 (Belleville Street), Wellington, Prince Edward County (County), also known as the Former Townline Foods Wastewater Lagoon Facility.

GDJE was engaged for this review since the influence area of the lagoon facility is encroaching onto the proposed development site, as shown in Figure 1, and restricting development.

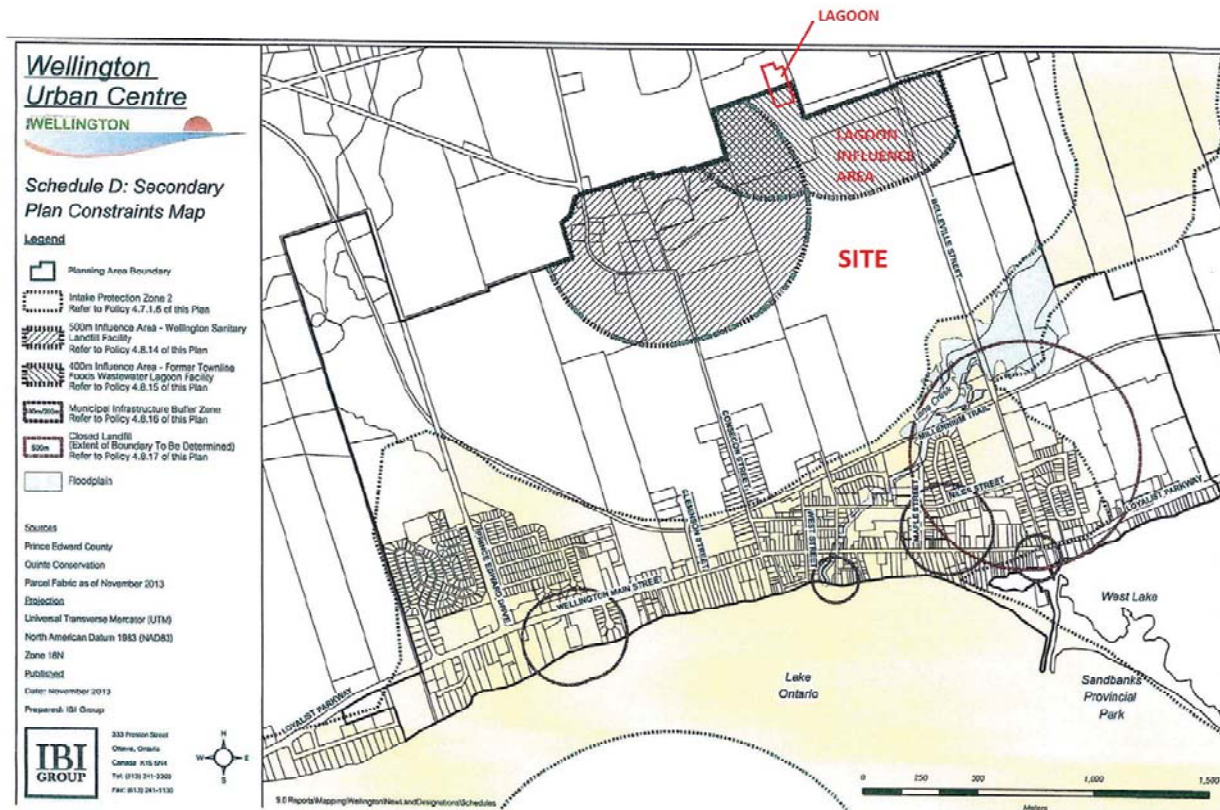


Figure 1 – Constraint Map

The purpose of this study is to satisfy the requirement of Section 2.9 of the Wellington Urban Centre Secondary Plan for an impact study in support of development on lands within 400 metres of the influence area that is associated with the former Townline Foods sewage lagoons.

The proposed development site is anticipated to be a residential subdivision, and/or a golf course. For the purpose of this report, we assumed the development site to be a residential subdivision as a worst case scenario.

Through background research, GDJE found that the Former Townline Foods Wastewater Lagoon Facility was utilized by Townline Processing Ltd. in a food processing process and was active from 1983 through to 2008 and is currently inactive.

It is understood that the processing plant treated their food process waste flows prior to pumping into the lagoon and ultimately discharged flows into the Municipal sanitary sewer system and the Municipality accepted the flows into the Municipal sewage treatment facility through an agreement between Townline Processing Ltd. and the Municipality.

Considering the above mentioned agreement and discharge plan with the Municipality, the Ministry of Environment (MOE) did not require an Environmental Compliance Approval (ECA) and therefore no ECA application was completed for the time of operations.

Upon Townline Processing Ltd. closing this location in 2008 the MOE did complete some site visits to ensure the closing, and possible overflow of the lagoon, did not negatively affect the environment, of which was satisfied to our knowledge.

The subject Lagoon Site is currently zoned as a Waste Disposal Industrial (MD-1) Zone by Prince Edward County.

LAGOON BUFFER ANALYSIS

The Ministry of Environment Guideline D-2 “Compatibility between Sewage Treatment and Sensitive Land Use, August 1996” was determined to be most relevant to determine the subject lagoon buffer zone. This guideline has legislative authority by the Ontario Water Resource Act, Section 10(1d) and 53 as well as legislative authority by the Planning Act, S.O., 1995 c. 17(14) and 51(24).

Guideline D-2 relates to “new and expanding municipal and private sewage treatment facilities... ..and to all development or redevelopment applications for residential or other sensitive land uses adjacent to sewage treatment facilities.”

Guideline D-2 recommend the buffer zones for associated treatment capacities as shown in the following table:

Table 1 – Buffer Zones

<u>Treatment Capacity (m3/d)</u>	<u>Buffer Zone</u>
< 500	100 metres
500 – 25,000	150 metres
> 25,000	Site Specific (>150 metres)

Notwithstanding Table 1, the MOE recommended separation distances varies from 100 to 400 metres depending on the type of pond and characteristics of the water.

It is noted that the current lagoon facility has been dormant since 2008 and therefore currently has no treatment flow capacity and therefore, from Table 1, it can be said that the buffer zone should be 100metres if not zero.

While it is not known, it is likely that the daily flows from the lagoon would have been less than 500m³/day resulting in a 100 metre buffer zone as well.

Guideline D-2 states that the “separation distances will be measured from the periphery of the noise/odour-producing source-structure, to the property/lot line of the sensitive land use.” This means the buffer is from the lagoon edge and not the property line as was shown in the County zoning map in figure 1.

As shown in the following figure, the proposed development will have over approximately 230metres of buffer zone from the lagoon to the proposed development northern property line.



Figure 2 – Buffer Length

Consideration to future factory arrivals and startups at this location can also be made, however considering the 230 metres of buffer zone, it is anticipated to be practical for any incoming factory.

Furthermore, a new agreement with the Municipality will be required for any new factory to release flows into Municipal infrastructure, and/or an ECA application and approval will be required from the MOE to outlet flows to the surrounding environment therefore constraints can be made at that time, on the factory process, to ensure odours are kept in line with the mentioned available 230metre buffer zone.

A zoning Hold can also be placed on the lagoon property by the County to further enforce odour restraints to incoming factories.

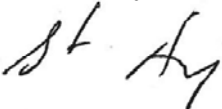
BUFFER ZONE RECOMMENDATIONS

With the above background and lagoon buffer zone analysis, it is recommended to revise the lagoon influence area by the County shown in Figure 1 and reduce the minimum 400 metre to a 100 metre buffer as described in the MOE Guideline D-2.

The existing 230 metre buffer currently between the lagoon and the proposed development property satisfies the required 100 metre buffer zone.

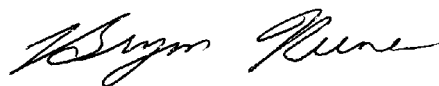
The reduction in the buffer from 400 metres to 100 metres means that there is no impact from the lagoons on the future development on the Kaitlin property.

Prepared by:



Steve Harvey, P.Eng.
G.D. Jewell Engineering Inc.

Approved by:



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