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ENGINEER'S REPORT

(Drainage Act, RSO 1990, c. D.17)

PROJECT Webbwood Drain

Analysis for Town & Country Communities Ltd. and Updated Maintenance Schedules

(Geographic Township of Maidstone) Municipality of Lakeshore, County of Essex **Project No. D22-094**

March 19, 2025

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PREAMBLE



MUNICIPAL DRAINS AND THE DRAINAGE ACT

The "Drainage Act" is one of the oldest pieces of legislation in Ontario, passed in 1859. It provides a democratic procedure for the construction, improvement and maintenance of drainage works. A procedure whereby the Municipality may assist in providing a legal drainage outlet for surface and subsurface waters not attainable under common law. Accordingly, provides much-needed assistance to facilitate the problems of obtaining a legal drainage outlet, engineering and cost distribution.

The Drainage Act provides a legal procedure by which an "area requiring drainage" may receive an outlet drain constructed to dispose of excess stormwater runoff to a sufficient outlet. This drainage infrastructure is otherwise known as a "Municipal Drain". Municipal Drains are identified by Municipal By-Law that adopts an Engineer's Report. The drainage engineer has the obligation to prepare an unbiased Engineer's Report based on information presented in written form, orally, and from visual inspection; in accordance with currently accepted design criteria. These reports form the legal basis for construction and management of the Municipal Drain. As such, an Engineer's Report shall contain specific details such as plans, profiles, and specifications that define the location, size and depth of the drainage infrastructure, together with establishing how costs are shared amongst all stakeholders.

Through the democratic procedure, the Engineer's Report is presented to all Stakeholders in front of Municipal Council (or a Drainage Board appointed by Council) for consideration. The Drainage Act provides an appeal process to address various aspects of Municipal Drains. These appeal bodies are the Court of Revision, the Ontario Drainage Tribunal and the Drainage Referee.

For additional information, Fact Sheets, and reference materials regarding the Drainage Act and Municipal Drains, please visit: <u>https://www.ontario.ca/page/agricultural-drainage</u>

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Mayor and Municipal Council

Corporation of the Municipality of Lakeshore 419 Notre Dame Street, P.O. Box 580 Belle River, Ontario NOR 1A0

I. INTRODUCTION

In accordance with the instructions received by email on August 30, 2022, from the Municipality of Lakeshore's Drainage Department, we have completed the necessary examinations, investigations, etc. and have prepared the following report that provides for the necessary evaluation to ensure a sufficient outlet for the proposed discharge from lands currently owned by Town & Country Communities Ltd. (210-03400). The overall project will encompass a review of the existing drainage system to evaluate additional flows created by the proposed high-level sewage treatment system and its impacts on the Webbwood Drain. Further to this evaluation, the increased flows permitted to the Municipal Drain shall require updated Maintenance Schedules of Assessment for the Webbwood Drain for future maintenance purposes. These investigations were initiated by a resolution passed by Council for our firm to investigate whether improvements are required towards providing a sufficient outlet for the Webbwood Drain. All of which are in accordance with the provisions of the Drainage Act. A plan showing the alignment of the Webbwood Drain, together with identifying all lands affected within the watershed of the drain are included herein as part of this report.

Our appointment and the works relative to the Municipal Drain improvements proposed under this report are being prepared in accordance with Section 78 of the "Drainage Act, RSO 1990, Chapter D.17, as amended in 2021". We have performed all of the necessary surveys, investigations, etc., for the proposed improvements to the Webbwood Drain, and we report thereon as follows.

II. <u>BACKGROUND</u>

Prior to our official appointment to address the necessary evaluations for the Webbwood Drain, the Municipality was approached by representatives of the CAP RIET Limited Partnership (210-03400), otherwise known as Town and Country Mobile Home Park to assist with access sewage servicing options. The subject property is currently serviced by a private on-site lagoon and leaching bed, approved by the Ministry of Environment, Conservation and Parks (MECP) and through an Environmental Compliance Approval (ECA). In recent years, it has been discovered that the existing treatment system no longer complies with the

conditions of the current ECA and the MECP has notified the Owner that the current system shall be discontinued. Through the Owner's evaluation, they found that the existing system is beyond repair and an alternative solution is required. As such, the sewage generated onsite shall be safely collected and disposed of until remedial actions have been completed. Based on these circumstances, the Owner had retained GM Blueplan to assess sewage servicing options for the property.

Through consultation with the Municipality, GM Blueplan inquired about the potential to discharge to municipal sanitary sewers. However, the Municipality identified that municipal sewer services in this area are currently unavailable and would not be available for five (5) to ten (10) years. Based on this information and through consultation with the MECP, the MECP strongly recommended that they implement a high-level treatment for dry-ditch criteria where the final treated effluent be discharged to a Municipal Drain. Although Municipal Drains are intended to collect and convey rainfall runoff and excess groundwater, all effluent meeting the MECP's dry-ditch criteria are considered suitable for direct discharge to the environment.

Through discussion with the Municipality, it was determined that the subject property contributes to two (2) Municipal Drains located on the north and south limits, where the affected lands have direct access to both drainage systems. The northern portion of the subject property contributes to the Town & Country Branch of the Pike Creek Drain and the southern portion contributes to the Webbwood Drain. Based on initial discussions, the Owner's representatives inquired about having a direct discharge to the Town & Country Branch of the Pike Creek Drain, to the north.

Scoping Meeting and Project Direction

With extensive knowledge and understanding of the Municipal Drains in the area, our office was asked to participate in a Scoping Meeting to discuss and review options to discharge effluent having dry-ditch criteria to the associated Municipal Drains. The Scoping Meeting was scheduled for July 29, 2022, where participants from GM Blueplan, CAP REIT, the Municipality of Lakeshore, and N.J. Peralta Engineering Ltd. were in attendance.

Upon introduction of all participants, we generally explained that a Municipal Drain is a communally accepted and owned drainage infrastructure that has been created through the provisions of the Drainage Act of Ontario. This Act provides for a democratic procedure for the construction, improvement, and maintenance of the drainage works. A Municipal Drain is adopted, administered, and maintained through Municipal By-Law. Therefore, once adopted as a Municipal Drain, the By-Law provides the Municipality with the authority to enter private lands, as the caretaker of the communal infrastructure. The Municipality's role is to ensure the drain is kept up and maintained on the watershed's behalf. With Municipal Drains on both sides of the subject property, we should be cognizant of any impacts to adjacent and downstream lands. With that in mind, the available drainage outlets were discussed. As part of the Drainage Act process, a public consultation process is included to ensure transparency with all affected stakeholders of the receiving Municipal Drain.

As it relates to the Town and Country Branch of the Pike Creek Drain, located on the south side of the subject property, it is currently an open drain configuration extending along the length of the property and crosses East Pike Creek Road as a covered draiange system with a direct connection to the Pike Creek. This drain resides in close proximity to existing residential properties and mobile trailers. This drainage system

was recently constructed (2012) having a design standard meeting the 100-year storm design. Due to its open drain configuration and proximity to residential lands, this Municipal Drain has been subject to various complaints related to temporary flooding, accumulation of debris, and general maintenance concerns.

As it relates to the Webbwood Drain, located on the north side of the subject property, it is currently an enclosed drainage system through the adjacent industrial lands for the majority of its length. This drainage system outlets to the Pike Creek along the north side of County Road 22. This Municipal Drain also encompasses some environmental features (environmental compensentation area) at its outlet. This overall system was recently improved (2008 and 2015) having a design standard meeting the 100-year strom design. As a recently improved covered drainage system, having environmental features at the downstream portion of the drain, this Municipal Drain is subject to less maintenance and would have fewer social impacts associated with treated effluent within the system.

Regardless of the preferred connection, it was determined that a hydraulic review shall be conducted to ensure that no impacts are created on the receiving drainage system. These impacts include a tolerable increase in the hydraulic grade line created by the increased flows, together with ensuring minimal social impacts on the affected landowners. Should there be any impacts to the hydraulics, the necessary improvements shall be implemented to ensure that the drainage system maintains a similar level of service compared to what currently exists. All of which shall be to the satisfaction of the Essex Region Conservation Authority (ERCA) and the Municipality of Lakeshore. Furthermore, the Munipality had confirmed that the proposed sewage connection and the development of the property would require a Site Plan Agreement (SPA) to form part of the Municipal approval process to ensure that the development of these lands complies with municipal by-laws and other relevant policies.

With the potential increase in the subject property's discharge and use of the Municipal Drain, it became apparent that the governing municipal drainage By-Law in which future costs of maintenance would no longer represent an appropriate distribution of these costs. Therefore, it was determined that updates to the parcel's contributions to the system shall be quantified and fairly assessed for future repair and maintenance to the drain. As such, a subsequent connection report (Section 65) or an updated maintenance schedule of assessment report (Section 76) would be required to fairly assess future maintenance costs for any future maintenance on the drainage system. However, should any improvements be required to the receiving drainage system, an improvements report (Section 78) may be required to address such drainage improvements. In order to capture the worst-case scenario, it was determined that an improvement report (Section 78) be requested for the receiving drainage system and updated maintenance schedules form part of the Report.

Based on the information and details discussed at the Scoping Meeting, the Owner's representatives identified that the Webbwood Drain may be the more appropriate drainage system to investigate the potential outlet for the sewage discharge into a Municipal Drain. Based on this information and further correspondence, the Municipality received a formal request for improvements submitted by CAP RIET Limited Partnership (210-03400), to initiate a Section 78 Engineer's Report for the potential improvements to the Webbwood Drain. It shall be noted that since the submission of the request for improvements, the ownership transferred to Town & Country Communities Ltd., where all Municipal conditions and agreements have been signed with this entity.

Prior to our appointment to this project, we understand that the Municipality of Lakeshore provided the ERCA with a notice advising of the proposed drainage works, as required under Section 78(2) of the Drainage Act. Based on their comments, we engaged in further correspondence with the ERCA, regarding specific requirements for the approval of the proposed works.

III. WATERSHED CHARACTERISTICS AND DRAINAGE HISTORY

Watershed Characteristics

The Webbwood Drain is an existing Municipal drainage system which provides drainage for the lands primarily located in Part of Lot 4, in the East Pike Creek Concession, all in the former Geographic Township of Maidstone. The Webbwood Drain commences at its outlet in the Pike Creek Drain as an open drain along the north side of County Road 22. Immediately upstream of its outlet into the Pike Creek Drain, a compensation area for fish and fish habitat was incorporated as part of the Webbwood Drain. The covered portion of the existing Webbwood Drain extends from the north side of County Road 22 southerly across said County Road, and then easterly along the south side of County Road 22 to the east limit of East Pike Creek Road. The Webbwood Drain then continues southerly as a covered drainage system along the east side of East Pike Creek Road to the property limit between the Croft Drive Industrial Subdivision and the Town and Country Mobile Home Park. From this point, the drain extends upstream, as a recently enclosed drainage system (formerly an open drain), within the Industrial Subdivision lands and along the south property limit. The drain continues as an enclosure to its upper end at the easterly right-of-way limit of the Un-Opened road allowance, east of Prospect Drive.

The Webbwood Drain is an irregularly shaped watershed which encompasses approximately 31.72 hectares (78.37 acres) of land, all of which reside within the Municipality of Lakeshore. The Webbwood Drain forms part of the overall Pike Creek watershed. The vast majority of the lands within the Webbwood Drain's watershed area consist of industrial and residential lands. The lands within the watershed have a relatively flat terrain with mild topographic relief.

Drainage History

From our review of the Municipality of Lakeshore's drainage records, we found various Engineer's Reports prepared through the provisions of the Drainage Act for the Webbwood Drain. Based on this information, we have utilized the following relevant Engineer's Report as a reference for carrying out this project:

Webbwood Drain

a) December 8, 1976, Engineer's Report for the "<u>Webbwood Drain</u>", prepared by William J. Setterington, P.Eng., was carried out through the Township of Maidstone By-Law No. 2884. This report provided for the establishment of the entire length of the existing open drain, at that time, as a Municipal Drain, through the provisions of the Drainage Act. The original alignment of the Webbwood Drain was an open drain in its entirety and commenced from its outlet into the Pike Creek Drain, along the south side of the former Highway No. 2 (County Road 22) and extended easterly and upstream to the east side of the East Pike Creek Road and continued along its current course. The works conducted under this report comprised drain excavation, access bridge replacements and general improvements along the entire length of the Webbwood Drain.

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- b) May 15, 1978, Engineer's Report for the "<u>Supplementary Report Webbwood Drain</u>", prepared by William J. Setterington, P.Eng., was carried out through the Township of Maidstone By-Law No. 2994. This report provided for changes to the drainage system to allow the Ministry of Transportation of Ontario (MTO) to cover part of the outlet portion of the drain along the south side of the former Highway No. 2, now County Road 22.
- c) April 22, 2008, Engineer's Report for the "Webbwood Drain Enclosure and Diversion (for County of Essex)", prepared by Gerard Rood, P.Eng., was carried out through the Town of Lakeshore By-Law No. 66-2008. This report provided for the diversion and enclosure of the outlet portion of the drain to accommodate the improvements to County Road 22. These improvements comprised approximately 182.0 metres of drain enclosure from the north side of County Road 22 to the north limit of the existing Croft Drive entrance culvert. The works also included the provision of a Fish Compensation Area with a low-flow channel.
- d) December 23, 2015, Engineer's Report for the "Webbwood Drain Improvements", prepared by Antonio B. Peralta, P.Eng., carried out through the Town of Lakeshore By-Law No. 12-2016. This report provided for the enclosure and improvements of the remaining portion of the open drain, from the north limit of the existing Croft Drive entrance culvert to its top end at the easterly rightof-way limit of the Un-Opened road allowance, east of Prospect Drive. These improvements within private lands, comprised of approximately 1,079.2 metres of drain enclosure, to replace the remaining portion of open drain.

From our detailed research of the above Engineer's Reports, we have determined that the Webbwood Drain has been designated as a Municipal Drain through the provisions of the Drainage Act. The entire length of this Municipal Drain has been defined and governed by the 2008 and 2015 Engineer's Reports and By-Laws and extends from Station 0+000.0 to approximately Station 1+318.5. As it relates to the area of land contributing to this drainage system, the combination of the 2008 and 2015 reports would encompass the entire watershed boundary limits contributing flows to the Webbwood Drain from the upstream lands. As such, this report was utilized as a starting point in establishing the area of land contributing to the overall watershed and establishing the distribution of all future maintenance costs.

IV. PRELIMINARY EXAMINATION AND ON-SITE MEETING

Further to the Scoping Meeting, our appointment and after reviewing all of the drainage information provided by the Municipality of Lakeshore, we arranged for an On-Site Meeting to be scheduled for September 28, 2022. The following people were in attendance at this meeting:

Name	Affiliation
Scott Pickering	Representative of 360 Croft Drive
Josette Eugeni	Representative of James Sylvestre Developments
Jill Fiorito	Lakeshore (Former) Drainage Superintendent
Tony Peralta, P.Eng.	N.J. Peralta Engineering Ltd.

The following information was discussed:

- 1. Upon introductions, it was generally discussed that Town and Country Mobile Park had submitted a request for improvements to the Municipality of Lakeshore for the Webbwood Drain. It was further outlined that the subject property is investigating an MECP-approved high-level sewage treatment system that requires a discharge connection to the Webbwood Drain. These investigations were initiated due to the failure of the current system and its need for a suitable replacement. Unfortunately, the subject property is without a connection to Municipal sanitary sewers and requires an alternative solution.
- 2. It was further discussed that although Municipal Drains are intended to collect and discharge rainfall runoff to a sufficient outlet, the discharge from the proposed sewage system meets the MECP standards for dry-ditch criteria suitable for direct discharge to the environment. It was confirmed that this system shall comply with an ECA that will be enforced by the MECP and further approved by the local conservation authority and the Municipality.
- 3. Mr. Peralta further explained that a Municipal Drain is a communally accepted and owned drainage infrastructure that has been created through the provisions of the Drainage Act of Ontario. This Act provides for a democratic procedure for the construction, improvement, and maintenance of the drainage works. A Municipal Drain is adopted, administered, and maintained through Municipal By-Law. Therefore, once adopted as a Municipal Drain, the By-Law provides the Municipality with the authority to enter private lands, as the caretaker of the communal infrastructure. The Municipality's role is to ensure the drain is kept up and maintained on the watershed's behalf.
- 4. Mr. Peralta further explained the purpose of the "On-Site Meeting". He explained that this meeting is a mandatory requirement of the Drainage Act and is intended to be the initial step in the process to provide a general introduction to the project and to help establish a general scope of work based on the submitted request and subsequent discussions of this meeting.
- 5. Mr. Peralta confirmed that the subject property forms part of the Webbwood Drain watershed with direct connections to the enclosed system. The Webbwood Drain was recently improved through the 2008 and 2015 Engineer's Reports and By-Laws. Based on these past improvements, the system has been designed to meet the 100-year storm event design criteria. However, with the implementation of the treatment system, additional discharge from the property may impact the current functionality and available capacity of the system. As such, an evaluation shall be conducted to confirm that the current capacities shall be reviewed to ensure little to no impact on the Municipal Drain's capacity. Should the evaluation confirm an increase in the drain's hydraulic capacity, drain improvements may be required to ensure that the system endures a similar level of service as the existing system.
- 6. Should the additional flows be accepted, the subject property will contribute additional flows compared to what was previously accounted for. Therefore, the change in contribution to the system shall impact cost sharing of future maintenance on the drain. Seeing that the overall governing Schedule of Assessment appears to be outdated, the Municipality requested that Updated Maintenance Schedules of Assessment form part of this project.

- 7. Mr. Peralta advised that the Webbwood Drain is under the jurisdiction of the Department of Fisheries and Oceans (DFO), the Essex Region Conservation Authority (ERCA), and the Ministry of Natural Resources (MNR). Should drainage improvements be required, further consultation with these agencies shall be initiated.
- 8. Mr. Peralta further explained that through the provisions of the Drainage Act, landowners who contribute to and/or benefit from the drainage works are assessed their fair share of the project costs. However, based on the intended scope of this project being specific to facilitating the development of the subject property, it is anticipated that any cost associated with this project will likely be borne by the benefitting Owner. However, the cost of any future maintenance to maintain the improved system shall be levied to all affected owners based on the added benefits to the overall system and the contribution of runoff from each property.
- 9. Mr. Peralta explained the overall drainage report, future maintenance, and potential appeal processes, together with reviewing grant eligibility with the landowners.
- 10. Mr. Peralta opened up discussions with the landowners and requested that they provide their comments and concerns regarding the Webbwood Drain, as it relates to this overall project. He further explained that the information shared at this meeting will help establish the overall scope and direction of this project. The landowners present were understanding of the situation and felt that so long as there was no impact on the overall drainage system, they did not see any concerns at this time.
- 11. At the conclusion of the discussions, we advised that we would remain in close consultation with the representatives of the Town and Country Mobile Park and any affected environmental stakeholders towards establishing the next steps in this process.

On this note, the On-Site Meeting had concluded.

V. INVESTIGATIONS, DESIGN CONSIDERATIONS, AND HYDRAULIC ANALYSIS

Further to the regulatory requirements outlined by the ERCA's initial comments, the proposed works should maintain the existing capacity and evaluate the effects of the increased discharge. As such, the ERCA confirmed that the increase in the property's discharge shall not create any negative impacts on the drainage system and adjacent lands. With that in mind, the improvements to the Webbwood Drain from the 2008 and 2015 Engineer's Reports and By-Laws were designed to maintain the 1:100-year design flows within the system.

"A Guide for Engineers Working Under the Drainage Act in Ontario" - OMAFRA Publication 852 (2018), is the current reference documentation used by Engineers carrying out work on Municipal Drains through provisions of the Drainage Act. Based on this document, the 2-year return period storm design (50% chance of occurring each year) is the recommended design standard for the minor flow path (channel) applied to Municipal Drains within rural Ontario, specific to open drain channels and low-hazard agricultural access crossings. The exception is for residential, industrial, and commercial properties where flooding could create significant damage to the surrounding properties, a higher 5-year (20% chance of occurring each year) to 10-year (10% chance of occurring each year) return period storm design could be utilized. Considering the lands adjacent to the Webbwood Drain are predominately residential and industrial landuse, a higher 5 to 10-year return period storm design shall be utilized for the evaluation of the minor flow path for the open drain. The major flow path (overland) conveys the less frequent, more extreme, storm events. The 1:100-year return period (1% chance of occurring each year) is the regional storm event that has been confirmed by the ERCA as their major flow path design standard. Based on our consultation and review of this project, it has been identified that the ERCA regulates the 1:100 return period event. Therefore, this return period shall be considered as part of the analysis and design considerations.

Based on the information gathered through the Scoping Meeting and the On-Site Meeting, we requested additional information to help assist with the necessary evaluations of the Webbwood Drain. Based on the initial discussion with GM Blueplan, the rated capacity of the proposed sewage treatment facility produces a maximum of 165,000 litres per day (114.6 litres per minute) of direct discharge to the Webbwood Drain. Utilizing the maximum release rate, our office analyzed the capacity of the existing Webbwood Drain relative to the 1:100-year water surface elevation within the system. This evaluation measured the existing conditions versus the proposed conditions to verify the potential impact on the upstream and downstream lands. Based on the worst-case scenario, when the proposed treatment system is discharging during the 1:100-year storm event, we found that the added flows will provide approximately one (1) centimetre increase in water surface elevation. Further to our evaluation, we find that this increase in water surface elevation will remain within the design parameters of the overall system. In order to achieve these figures and minimize the effect on the overall system, the proposed treatment system shall discharge at a specific location within the Webbwood Drain. As a result and through consultation with the ERCA, our evaluation concludes that the impacts of treatment system discharge will not require any physical improvement to the Webbwood Drain. Through email correspondence, they confirmed that our proposal, as presented, is something that the ERCA can support.

As noted previously, the existing sewage system had failed and interim measures were required to maintain day-to-day operations. Although daily hauling of effluent was attainable, it was not feasible as an interim solution. Therefore, while a permanent solution was being derived, our office was asked to analyze the impacts of a temporary modular treatment system. Therefore, our office was asked to conduct additional analysis to evaluate the effects of the temporary treatment system on the Webbwood Drain. As a result, the Owners retained Clearford for the implementation of a temporary treatment system. Through meetings and correspondence, it was determined that an MECP-approved temporary treatment system would produce 500 to 600 litres per minute (720,000 to 864,000 litres per day) of effluent discharge. Through our analysis, it was determined that these flows would create a significant increase in water surface elevation during the 1:100-year storm event and would not meet the requirement previously established. However, the system will have the ability to be operated intermittently (daytime operation only) and only during dry periods. Through various correspondence and discussions with the ERCA, we established specific provisions for operating the temporary system and obtained their approval for the interim operating conditions.

VI. FINDINGS AND RECOMMENDATIONS

Based on the detailed investigations, discussions and reviews with Owner's Representatives, Municipal Staff, and regulatory authorities, together with information derived from the project meeting, we have established

the general requirements to adequately address the high-level sewage treatment facility discharge to the Webbwood Drain. Our findings and recommendations are outlined in the following paragraphs.

ERCA, DFO and MNR/MECP Considerations

During the course of our investigations, this drainage project was discussed and reviewed in detail with Ashley Gyori and Summer Locknick, of the ERCA, to address the regulatory requirements, concerns, and comments related to this Municipal Drain. The Webbwood Drain is located within the regulated area and is under the jurisdiction of the ERCA. Therefore, an ERCA Permit is required for the necessary review and approvals associated with the Webbwood Drain. Further to the various meetings and upon their request, a detailed hydraulic analysis and a design proposal were submitted to the ERCA for their review and consideration. Based on the submissions, the ERCA provided us with their comments and concerns through email correspondence. A copy of the ERCA response is included in **Appendix "A**".

With the results of the project not requiring any physical work to the Webbwood Drain, no further environmental investigations were required. However, an amended ECA was required for the implementation of the new sewage treatment system administered through the MECP.

Webbwood Drain Open Drain General Improvements

From our investigations, examinations, calculations, discussions, and determinations with the affected parties, the following findings were noted and recommendations regarding the general improvements required to the Webbwood Drain are provided as follows:

General Improvements:

- 1. Parcel 210-03400, currently owned by Town & Country Communities Ltd. located within Lot 4, East Pike Creek Concession (EPC), is an existing residential mobile park. The subject property includes an existing on-site lagoon and leaching bed to address sewage for the associated mobile park, through an existing ECA administered through the MECP. The existing sewage system has reached the end of its service life and requires replacement. With no available connection to municipal sewers, the Owners are seeking to implement a high-level treatment facility for dry-ditch criteria that will outlet into a local Municipal Drain, per the recommendations of the MECP. This new sewage treatment facility would require an amended ECA through the MECP. In addition to the necessary approvals from the governing authorities, the proposed improvements/development of the property will need to proceed through a Site Plan Agreement (SPA) through the Municipality of Lakeshore.
- 2. The subject property has direct access to two (2) Municipal Drains located on both sides of the property. Upon review and consideration of both options, it was established that the most appropriate outlet would be the Webbwood Drain located along the south side of the property. The majority of the length of the Webbwood Drain consists of a covered drainage system that was entirely updated and improved partially in 2008 and the remaining portion in 2015. In order to meet the regulatory requirements at that time, the overall system was designed to meet the regional design standard of a 1:100-year return period (1% chance of occurring each year).
- 3. As outlined within the initial correspondence with the ERCA, consideration must be given to ensure that the increased flows directed to the Webbwood Drain shall not create any negative impacts on the

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drainage system and adjacent lands. The proposed high-level treatment facility is rated to discharge suitable effluent to the environment having 165,000 L/day (114.6 litres per minute). In order to ensure that no adverse effects are created by the improvements to the subject property, a hydraulic analysis was conducted for this project to analyze the existing parameters and proposed requirements. Through this analysis, it was confirmed that the increase in discharge from the subject property during the 1:100-year storm event would result in an approximately one (1) centimetre increase in water surface elevation. Further to our evaluation, we find that this increase in water surface elevation will remain within the design parameters of the overall system and create little to no impact on the overall system. In order to ensure minimal impacts on the overall system, the analysis confirmed that the proposed treatment system shall discharge into CBMH-28 at Station 1+186.4 or DICB-29 at Station 1+187.4. Should the discharge of the proposed treatment system discharge at the specified locations, the proposed treatment system discharge at the specified locations.

4. Although no physical improvements are required to accept the additional flows into the Webbwood Drain, the added flows alter the property's overall contributions to the Municipal Drain. As such, these contributions are not properly reflected in the existing Schedule of Assessment contained within the governing By-Laws. Therefore, it is necessary to prepare a new Maintenance Schedule of Assessment to properly account for all of the lands and roads affected by the entire length of the Webbwood Drain, through Section 76 of the Drainage Act.

In summary, our evaluation confirmed that the additional discharge from the proposed sewage treatment system within the residential mobile park owned by Town & Country Communities Ltd. (210-03400) will not create any adverse impacts on the Webbwood Drain, so long as the specified provisions are adhered to. As such, we recommend that no physical works are required to facilitate the additional flows. However, we recommend that Updated Maintenance Schedules of Assessment be created to reflect the added discharge contributions to the Webbwood Drain by the subject property. All works shall be completed in accordance with this Report, the attached Specifications, and the accompanying Drawings and that all of the works associated with same shall be carried out in accordance with Section 76 and Section 78 of the "Drainage Act, RSO 1990, Chapter D.17, as amended 2021".

VII. ESTIMATE OF COST

Our estimate of the total cost of this work, including all incidental expenses, is the sum of **THIRTY TWO THOUSAND EIGHT HUNDRED FIFTY FOUR DOLLARS (\$32,854.00)** made up as follows:

CONSTRUCTION

With confirmation that the Webbwood Drain can safely accept the additional flow with little to no impacts, no physical construction improvements are required or implemented.

INCIDENTALS	
Report, Estimates and Specifications	\$ 7,000.00
Survey, Assistance, Expenses and Drawings	\$ 3,000.00
Conduct Hydraulic Analysis and Modelling	\$ 15,000.00
Updated Maintenance Schedule	\$ 5,000.00
Duplicating Report and Drawings	\$ 1,500.00
Net HST on the above items (1.76%)	\$ 554.00
Estimate Cost for ERCA Permit	\$ 800.00
TOTAL FOR INCIDENTALS =	\$ 32,854.00
TOTAL FOR CONSTRUCTION (brought forward) =	\$ 0.00
TOTAL ESTIMATE =	\$ 32,854.00

VIII. <u>DRAWINGS</u>

As part of this report, we have provided a plan that illustrates the Webbwood Drain watershed and subwatershed areas, as well as a listing of the affected landowners. This drawing shall be used to accompany the maintenance schedules of assessment for the Webbwood Drain. The drawing is attached to the back of this report and is labelled herein as **Appendix "B"**.

IX. CONSTRUCTION SCHEDULE OF ASSESSMENT DETAILS

We would recommend that all of the costs associated with the necessary evaluation and review of the Webbwood Drain, be assessed in accordance with the attached **Construction Schedule of Assessment**.

In summary, all analysis, review, and updated Maintenance Schedules associated with this project, were required to facilitate the needs of the subject property owned by Town & Country Communities Ltd. (210-03400) in Part of Lot 4, in the East Pike Creek Concession, in the Geographic Township of Maidstone.

It shall be noted that the attached Construction Schedule of Assessment is to be utilized for the distribution of costs related to the works being provided for under this report and this Construction Schedule of Assessment shall not be utilized for the sharing of any future maintenance works conducted to same.

X. <u>FUTURE MAINTENANCE</u>

After the completion of all of the works associated with this Engineer's Report, we would recommend that the Webbwood Drain be kept up and maintained in the future through the Municipality of Lakeshore.

Future Repair and Replacement - Webbwood Drain

Based on the previous improvements conducted on the various portions of the Webbwood Drain, past By-Laws have established future maintenance provisions related to the repair and replacement of the associated sections of the Municipal Drain. The following is a summary of these provisions previously established:

<u>From Station 0+000.0 to Station 0+240.9</u> – This portion of the Webbwood Drain was improved as part of the April 22, 2008 Engineer's Report. These works were specifically required for the County Road 22 improvements. As such, when repair or replacement of this portion of the Municipal Drain is required, it shall adhere to the details and parameters outlined within the associated 2008 Report.

<u>From Station 0+240.9 to Station 1+318.5</u> – This portion of the Webbwood Drain was improved as part of the December 23, 2015 Engineer's Report. These works were specifically related to the enclosure of the open portion of the Webbwood Drain. As such, when repair or replacement of this portion of the Municipal Drain is required, it shall adhere to the details and parameters outlined within the associated 2015 Report.

Future Flushing and Cleaning

All lands and roads within the Webbwood Drain watershed area contributing their flows through this enclosure shall be responsible to pay their fair share of any future flushing and cleaning of the enclosure pipe, as well as any future repairs or maintenance to any rip rap erosion protection. All of which is located between Station 0+058.9 and Station 1+318.5.

Entire Length (Station 0+058.9 to Station 0+240.9) - When future flushing and cleaning works are performed over the entire length of the enclosed portion of the Webbwood Drain, we recommend that the cost for these works of future maintenance shall be shared by the abutting landowners and upstream affected lands and roads, following the same proportions established within the **Future Maintenance Schedule of Assessment – Entire Length (Station 0+058.9 to Station 1+318.5)** included within **Appendix "C"**. This Schedule of Assessment has been developed based on an assumed cost of **\$20,000.00** and the future maintenance costs shall be levied pro-rata to the affected lands and roads that are adjacent to and situated upstream of this section of drain for which future maintenance works have been carried out. Therefore, when **\$20,000.00** worth of future maintenance work is expended on the entire length of the drain, the assessment to each of the individual affected property owners and roads shall be levied per the noted Maintenance Schedule of Assessment. It should be clearly understood that the amounts shown within this Schedule are only for prorating future maintenance costs for the drain and do not form part of the current cost for the work.

Peralta Engineering

Downstream Section (Station 0+058.9 to Station 0+240.9) - When future flushing and cleaning works are performed over the downstream section of the enclosed portion of the Webbwood Drain, we recommend that the cost for these works of future maintenance shall be shared by the abutting landowners and upstream affected lands and roads, following the same proportions established within the **Future Maintenance Schedule of Assessment – Downstream Section (Station 0+058.9 to Station 0+240.9)** included within **Appendix "C"**. This Schedule of Assessment has been developed based on an assumed cost of **\$10,000.00** and the future maintenance costs shall be levied pro-rata to the affected lands and roads that are adjacent to and situated upstream of this section of drain for which future maintenance works have been carried out. Therefore, when **\$10,000.00** worth of future maintenance work is expended on this section of the drain, the assessment to each of the individual affected property owners and roads shall be levied per the noted Maintenance Schedule of Assessment. It should be clearly understood that the amounts shown within this Schedule are only for prorating future maintenance costs for the drain and do not form part of the current cost for the work.

<u>Upstream Section (Station 0+240.9 to Station 1+318.5)</u> - When future flushing and cleaning works are performed over the upstream section of the enclosed portion of the Webbwood Drain, we recommend that the cost for these works of future maintenance shall be shared by the abutting landowners and upstream affected lands and roads, following the same proportions established within the **Future Maintenance Schedule of Assessment – Upstream Section (Station 0+240.9 to Station 1+318.5)** included within **Appendix "C"**. This Schedule of Assessment has been developed based on an assumed cost of **\$10,000.00** and the future maintenance costs shall be levied pro-rata to the affected lands and roads that are adjacent to and situated upstream of this section of drain for which future maintenance works have been carried out. Therefore, when **\$10,000.00** worth of future maintenance work is expended on this section of the drain, the assessment to each of the individual affected property owners and roads shall be levied per the noted Maintenance Schedule of Assessment. It should be clearly understood that the amounts shown within this Schedule are only for prorating future maintenance costs for the drain and do not form part of the current cost for the work.

The attached Future Maintenance Schedules of Assessment for the Webbwood Drain are to be utilized only for the flushing of sediment material within any existing enclosed portions of the drain. If spot maintenance is performed within the specified reach of the drain, it is recommended that only those lands adjacent and upstream of the maintenance site be assessed for any future costs. It shall be noted that these schedules shall not be utilized for any other maintenance and repair/replacement works being conducted within the system. These provisions have previously been established in the preceding heading.

Webbwood Drain - Working Corridors and Access Routes

Access routes and working corridors have been established in previous By-Laws to help facilitate the necessary drainage improvements and future maintenance of the Webbwood Drain. The lands in which these working corridors and access routes have been established have currently or previously been compensated for and shall remain in perpetuity for initial construction and future maintenance works on the Webbwood Drain. Therefore, when construction and/or future maintenance works are being conducted, the Contractor shall be expected to keep all future equipment and forces within the established working corridors for any future maintenance performed on the Webbwood Drain.

Future Maintenance Summary

All of the above provisions for the future maintenance of the Webbwood Drain shall remain as aforesaid until otherwise varied and/or determined under the provisions of the "Drainage Act, RSO. 1990, Chapter, D.17, as amended 2021", or subsequent amendments made thereto.

XI. SPECIAL CONSIDERATIONS

Stormwater Management Provisions

It shall be noted that some developments within the Webbwood Drain watershed convey their runoff through existing Stormwater Management (SWM) facilities. SWM facilities are utilized to control stormwater discharge from a site with increased runoff caused by development and further restrict flows to a pre-development flow rate (or less). Although SWM is intended to control the peak discharge into the receiving drainage system, the rainfall on developed sites with increased impermeable conditions creates an additional volume of runoff that is stored within SWM facilities (ponds, underground chambers, etc.). The increased total volume of water is discharged from the SWM facilities over an extended period, to empty the pond after a rain event. As a result, SWM facilities generally contribute a higher total volume of water that travels through the receiving drains. Also, with the delayed release of runoff created by SWM facilities, these facilities discharge flows over an extended period of time, creating extended saturation and higher direct erosion throughout the drain bottom. These extended flows and added volume tend to destabilize the drain banks, as the receiving drains are wetter for longer periods. The effects of SWM are considered an injuring liability to the receiving drains, which will generally reduce the service life of the open drain and result in more periodic drain maintenance. Thus, creating increased maintenance costs. Pursuant to Section 23 of the Drainage Act we have taken into account the increased volume of artificial runoff discharging from the SWM systems and have factored this provision into the outlet assessment for the lands being served by the SWM systems within our new Schedules of Assessment for the Webbwood Drain.

All of which is respectfully submitted,

N.J. PERALTA ENGINEERING LTD.

Antonio B. Peralta, P.Eng.

ABP/kk



APPENDIX "A"

Reperate Engineering

Kiara Kirkland

From:	Ashley Gyori <agyori@erca.org></agyori@erca.org>
Sent:	June 27, 2023 9:26 AM
То:	Matthew Shiha
Cc:	Jill Fiorito; Jenny Mailman; Graham Hines; Leo Lau; Karen Dam; Wayne Ormshaw;
	Sydnee Rivest; Grant Parkinson - GM BluePlan; Maggie Grierson - GM BluePlan; Tony
	Peralta; Anne-Marie Moniz
Subject:	RE: Request for Improvement - Webbwood Drain - Re-evaluate Outlet Contributions
Attachments:	Application-for-Permit-General_Fillable.pdf; Landowner-Authorization-Form-fillable-
	form.pdf; ERCA Fee Schedule 2023 - Final (for circulation).pdf

Good morning Matthew,

Thank you for providing the details below and the previously attached information. We apologize for our delay in response as we are experiencing extremely high volumes of incoming applications and inquiries. Given the submitted information and our additional discussion related to the potential increase in HGL under the typical interim operating conditions, I can confirm that the interim proposal appears to be a reasonable solution that our office can support.

As these works will alter the flows in the Webbwood Drain, an ERCA Alterations to Watercourse approval under Section 28 of the *Conservation Authorities Act* will be required. This approval will be for the interim condition only and an additional approval will be required for the permanent solution. Please see attached for the Application for Permit form, to be signed and completed by the Town and Country Trailer Park. This form can also be completed by a designated agent on behalf of the Town and Country Trailer Park; however, a Landowner Authorization Form (or equivalent) is required to be signed by the Town and Country Trailer Park to provide their permission for the agent to act on their behalf in obtaining the ERCA approval. The fee for the review of this submission is \$800.00, in accordance with Item 7 in the attached Fee Schedule. Payment can be made by credit card over the phone by contacting Ms. Lisa Limarzi, *Administrative Associate*, at **519-560-7207** or payment can be made in person at the ERCA office Tuesday, Wednesday and Thursdays from 8:30a.m. – 4:00p.m.

Once the *Drainage Act* process has been completed and the permanent solution is ready to be implemented, a revised ERCA approval and subsequent fee will be required. As this revised approval will be for the permanent condition under the municipal *Drainage Act*, the Application for Permit form will need to be completed and signed by the municipality.

Please let me know if you have any questions or would like to discuss further.

Kind regards,



ASHLEY GYORI Regulations Analyst Essex Region Conservation Authority 360 Fairview Avenue West, Suite 311 • Essex, Ontario • N8M 1Y6 agyori@erca.org • essexregionconservation.ca

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NOTE: I WILL BE TAKING AN EXTENDED LEAVE FROM JULY 2023 – JULY 2024

The ERCA Office is now open to the public **Tuesdays, Wednesdays and Thursdays** to provide "counter service"; however, services continue to be delivered online and through email. Please consult ERCA's website for more information and direction regarding online services (i.e. permitting, cottage bookings, seasonal passes etc.).

From: Matthew Shiha <<u>matthew@peraltaengineering.com</u>>

Sent: Wednesday, June 14, 2023 4:21 PM

To: Ashley Gyori <<u>AGyori@erca.org</u>>

Cc: Jill Fiorito <<u>ifiorito@lakeshore.ca</u>>; Jenny Mailman <<u>J.Mailman@capreit.net</u>>; Graham Hines <<u>G.Hines@capreit.net</u>>; Leo Lau <<u>l.lau@capreit.net</u>>; Karen Dam <<u>k.dam@capreit.net</u>>; Wayne Ormshaw <<u>wormshaw@lakeshore.ca</u>>; Sydnee Rivest <<u>srivest@lakeshore.ca</u>>; Grant Parkinson - GM BluePlan <<u>Grant.Parkinson@gmblueplan.ca</u>>; Maggie Grierson - GM BluePlan <<u>Maggie.Grierson@gmblueplan.ca</u>>; Tony Peralta <<u>tony@peraltaengineering.com</u>>; Anne-Marie Moniz <<u>amoniz@lakeshore.ca</u>>

Subject: RE: Request for Improvement - Webbwood Drain - Re-evaluate Outlet Contributions

Good Afternoon Ashley,

Further to our telephone conversation of May 10, 2023, we have been in contact with the Consultants coordinating the options for temporary discharge measures for the Town and Country Trailer Park Lagoon. As such, please find below our proposal outlining our request to accommodate temporary increased flows within the Webbwood Drain, for your consideration:

In our discussion with the Owners and Consultants, it has come to our attention that the current lagoon is at a critical point and at risk for failure, leading to a breach and contamination of the surrounding area and subsurface bed. Currently, the efforts to drawdown the lagoon consist of trucking the material out of the lagoon which is costly and restricted to handling day to day increases. Hence, the need for a temporary system is evident and would be in operation until the drawdown of the lagoon is to a safe and sufficient level before implementing the permanent system (supported by your office in the previous email below).

As already confirmed, the permanent system is expected to have a flow rate of 113.4 L/min and would not adversely affect the current level of service, beyond 1cm for the 1:100 year storm. The temporary system is anticipated to release a maximum of 600 L/min intermittently and could affect the level of service during a storm event. Therefore, we would like to provide supplemental information for your consideration to mitigate these possible adverse effects.

- It is the intention for these temporary units to be operated intermittently (through daytime operation only) as well as only during dry periods (available ramp down and cessation leading up to and during rain events).
- The units come with ECAs and provide for full time monitoring.
- It is the operator's responsibility for monitoring the units and they would be liable for their proper and safe operation. The Municipality and ERCA would hold no liability for the operation or management of the work.
- The MECP supports the use of the temporary units and has provided quality standards for the effluent and requires weekly reports on discharge flowrate, effluent quality, and other effluent parameters.

In addition to the above, please find attached the following documents:

1. Report outlining the background and proposed treatment plan.

- 2. Technical memorandum addressing monitoring and management plan, contingency plans, and risk mitigation table for the proposed temporary units.
- 3. ECA documents (amended and original).
- 4. Correspondence between the Consultants and MECP.

We hope that you find the above measures and mitigations to your satisfaction which would allow the approval of this temporary measure to increase flows. Should you require any other supporting information in this matter or would like to discuss this further, please do not hesitate to contact us.

Regards,



Matthew Shiha, E.I.T.

matthew@peraltaengineering.com | 519-733-6587 x 145 N.J. Peralta Engineering Ltd. - Consulting Engineers 45 Division St. N., Kingsville ON N9Y 1E1 peraltaengineering.com

IMPORTANT: We have temporarily relocated to Unit 1-38 Erie Street North, Learnington ON N8H 2Z3 during the construction of the new office building at our Kingsville location.

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From: Ashley Gyori <<u>AGyori@erca.org</u>>

Sent: Friday, November 4, 2022 8:34 AM

To: Tony Peralta < tony@peraltaengineering.com >

Cc: Jill Fiorito <<u>jfiorito@lakeshore.ca</u>>; Lauren Colenutt <<u>lcolenutt@lakeshore.ca</u>>; Jenny Mailman <<u>J.Mailman@capreit.net</u>>; Graham Hines <<u>G.Hines@capreit.net</u>>; Leo Lau <<u>l.lau@capreit.net</u>>; Karen Dam <<u>k.dam@capreit.net</u>>; Kyle Emery <<u>kemery@lakeshore.ca</u>>; Wayne Ormshaw <<u>wormshaw@lakeshore.ca</u>>; Sydnee Rivest <<u>srivest@lakeshore.ca</u>>; Grant Parkinson - GM BluePlan <<u>Grant.Parkinson@gmblueplan.ca</u>>; Maggie Grierson -GM BluePlan <<u>Maggie.Grierson@gmblueplan.ca</u>>

Subject: RE: Request for Improvement - Webbwood Drain - Re-evaluate Outlet Contributions

Good morning Tony,

Thank you for your email below. We've had an opportunity to review the information provided and we can confirm this proposal, as presented, is something that this office can support.

For this project to proceed, we will require a final stamped/sealed engineer's report and drawings so that we can undertake a full review and a completed Application for Permit form signed by the municipality.

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

Kind regards,



ASHLEY GYORI Regulations Analyst Essex Region Conservation Authority 360 Fairview Avenue West, Suite 311 • Essex, Ontario • N8M 1Y6 agyori@erca.org • essexregionconservation.ca

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From: Tony Peralta <<u>tony@peraltaengineering.com</u>> Sent: October 24, 2022 2:50 PM To: Ashley Gyori <<u>AGyori@erca.org</u>> Cc: Jill Fiorito <<u>ifiorito@lakeshore.ca</u>>; Lauren Colenutt <<u>lcolenutt@lakeshore.ca</u>>; Jenny Mailman <<u>J.Mailman@capreit.net</u>>; Graham Hines <<u>G.Hines@capreit.net</u>>; Leo Lau <<u>l.lau@capreit.net</u>>; Karen Dam <<u>k.dam@capreit.net</u>>; Kyle Emery <<u>kemery@lakeshore.ca</u>>; Wayne Ormshaw <<u>wormshaw@lakeshore.ca</u>>; Sydnee Rivest <<u>srivest@lakeshore.ca</u>>; Grant Parkinson - GM BluePlan <<u>Grant.Parkinson@gmblueplan.ca</u>>; Maggie Grierson -GM BluePlan <<u>Maggie.Grierson@gmblueplan.ca</u>>

Subject: RE: Request for Improvement - Webbwood Drain - Re-evaluate Outlet Contributions

Good afternoon Ashley;

Further to the correspondence outlined below, our office has evaluated the additional flows created from the external tertiary system into the Webbwood Drain and we wish to provide you with the following details:

GM Blue Plan has been retained by the proponent, Town and Country Mobile Park, to implement a new tertiary sewage system that will be required to discharge to a sufficient outlet. The implementation of this tertiary system is being facilitated through the Municipality of Lakeshore, with consultation with the MECP. Through our review and discussion with GM Blue Plan, the proposed tertiary sewage system is intended to discharge treated water at a maximum release rate of 163,282L/day (113.4 L/min).

Through an Engineer's Report prepared by myself in 2015, the Webbwood Drain improvements incorporated the enclosure of the remaining open drain portion within the system to address the ongoing erosion issues. As part of the requirements set out for this project, our design and analysis of this enclosure accounted for flow up to the 1:100-year storm event.

Utilizing the maximum release rates provided by GM Blue Plan, we have analyzed the capacities of the existing Webbwood Drain to ensure that there are no adverse impacts to the upstream and downstream lands, as a result of the added flows. As such, our analysis confirmed the following:

- In the event that the tertiary system is discharging during the 1:5-year storm event, it will have minimal effects on the system (less than 0.5cm increase in water surface elevation).
- In a worst-case scenario when the tertiary system is discharging during a 1:100-year storm event, we found that the added flows will provide an increase of water surface elevation of approximately 1cm within the system. The 1cm increase in water surface elevation should remain contained within the design parameters of the system.

• In order to achieve these figures and to minimize the effects on this Municipal Drain, the tertiary system discharge shall be connected to the Webbwood Drain at CBMH28 at Station 1+186.4, or DICB29 at Station 1+187.4 as identified within the 2015 Engineer's Report.

We trust that this information is satisfactory for your review. However, if you require any additional information, please feel free to contact us.

We look forward to your response.

Regards,



Tony Peralta, P.Eng.

tony@peraltaengineering.com | 519-733-6587 x 122 N.J. Peralta Engineering Ltd. - Consulting Engineers 45 Division St. N., Kingsville ON N9Y 1E1 peraltaengineering.com

IMPORTANT: We have temporarily relocated to Unit 1-38 Erie Street North, Learnington ON N8H 2Z3 during the construction of the new office building at our Kingsville location.

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From: Ashley Gyori <<u>AGyori@erca.org</u>>
Sent: Tuesday, August 30, 2022 10:45 AM
To: Kyle Emery <<u>kemery@lakeshore.ca</u>>
Cc: Jill Fiorito <<u>ifiorito@lakeshore.ca</u>>; Lauren Colenutt <<u>lcolenutt@lakeshore.ca</u>>
Subject: RE: Request for Improvement - Webbwood Drain - Re-evaluate Outlet Contributions

[EXTERNAL EMAIL] CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Kyle,

Thank you for the attached notice and additional information. I've had an opportunity to review the information provided, as well as the general history of this municipal drain, and have the following information to provide.

A review of our floodplain mapping for the Webbwood Drain indicates that this drain is located within an area that is under the jurisdiction of the Essex Region Conservation Authority (ERCA) (Section 28 of the *Conservation Authorities Act*). Prior to undertaking works, a permit is required from this office.

As per your email below, it is our understanding that the proposed drainage works are to investigate the use of a tertiary system to increase the discharge to the Webbwood Drain. Please note that any comments from our office are related to the proposed increased flows outletting to the municipal drain only. Our office will not be providing comments related to the use of municipal drains for sanitary purposes. It is typically the municipal building department that reviews and approves if a septic system is in compliance with Part 8 of the Ontario Building Code, Private Sewage Systems. Approval from the Ministry of the Environment, Conservation and Parks (MECP) may also be required. While sanitary servicing does not fall under the jurisdiction of the Conservation Authority, the proposed placement and grading of fill activities related to the installation of a

new septic system may require an approval from our office under Section 28 of the *Conservation Authorities Act*.

The engineering report will need to take into consideration the existing capacity of the drain and the effects of the increased discharge. Any proposed works cannot result in adverse impacts to the lands both upstream or downstream. We cannot be more specific in this regard without an actual proposal to review.

Prior to the engineer moving forward with the final report, we kindly request that they provide this office with the opportunity to review the report so that any additional or outstanding ERCA comments can be addressed prior to the meeting of consideration.

It should be noted that ERCA does not review proposals on behalf of other agencies (i.e. Department of Fisheries and Oceans (DFO), Ministry of the Environment, Conservation and Parks (MECP), Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNRF), etc.). It is the responsibility of the proponent to obtain all municipal, provincial and federal authorizations and to ensure that all applicable legislation has been adhered to.

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

Kind regards,



ASHLEY GYORI Regulations Analyst Essex Region Conservation Authority 360 Fairview Avenue West, Suite 311 • Essex, Ontario • N8M 1Y6 agyori@erca.org • essexregionconservation.ca

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From: Kyle Emery <<u>kemery@lakeshore.ca</u>>
Sent: Friday, August 19, 2022 9:57 AM
To: Ashley Gyori <<u>AGyori@erca.org</u>>
Cc: Dan Jenner <<u>DJenner@erca.org</u>>; Jill Fiorito <<u>ifiorito@lakeshore.ca</u>>; Lauren Colenutt <<u>lcolenutt@lakeshore.ca</u>>
Subject: Request for Improvement - Webbwood Drain - Re-evaluate Outlet Contributions

Good morning Ashley,

Please see the attached Request for Improvement on the above drain in the former township of Maidstone. The Town & Country Mobile Home Park has experienced some capacity concerns with their sewage lagoons. The intent is to investigate the use of a Tertiary Septic System and increase their discharge into the Webbwood Drain.

If you have any questions or concerns, please contact me.

Cheers

Kyle Emery Assistant Drainage Superintendent Municipality of Lakeshore | Operations - Drainage 419 Notre Dame Street, Belle River, ON, NOR 1A0 T: 519-728-2488 x627 Connect with us online at Lakeshore.ca/Connect

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APPENDIX "B"

Reperate Engineering



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Reperate Engineering

APPENDIX C-1

Future Maintenance Schedule Entire Drain (Station 0+058.9 to Station 0+240.9)

Reperalta Engineering

Engineer's Report - Webbwood Drain - Analysis for Town & Country Communities March 19, 2025

FUTURE MAINTENANCE SCHEDULE OF ASSESSMENT

For Flushing and Cleaning Only

Entire Drain (Station 0+058.9 to Station 0+240.9)

3. MUNICIPAL LANDS:

			-							
Tax Roll	Con. or Plan	Lot or Part	Acres	Acres	Hectares		N N	alue of	Value of	TOTAL
Number	Number	<u>of Lot</u>	Owned	<u>Affected</u>	Affected	<u>Owner's Name</u>		<u>enefit</u>	<u>Outlet</u>	VALUE
East Pike Creek	Road			1.80	0.728	Municipality of Lakeshore	↔	526.00 \$	425.00 \$	951.00
Croft Drive				5.00	2.023	Municipality of Lakeshore	↔	487.00 \$	1,220.00 \$	1,707.00
Prospect Drive				0.49	0.198	Municipality of Lakeshore	\$	48.00 \$	120.00 \$	168.00
Un-Opened Roa	þ			1.28	0.518	Municipality of Lakeshore	÷	125.00 \$	312.00 \$	437.00
County Road 22				10.38	4.201	County of Essex	Ś	3,031.00 \$	2,740.00 \$	5,771.00

9,034.00

4,817.00 \$

4,217.00 \$

Total on Municipal Lands...... \$

4. PRIVATELY OWNED - NON-AGRICULTURAL LANDS:

Tax Roll <u>Numbe</u> r	Con. or Plan <u>Number</u>	Lot or Part <u>of Lot</u>	Acres <u>Owned</u>	Acres <u>Affected</u>	Hectares Affected	<u>Owner's Name</u>		Value of <u>Benefit</u>	Value of <u>Outlet</u>	TOTAL VALUE
210-03300	EPC	4	3.65	3.65	1.477	Heligear Canada Acquisition Corporation	↔	355.00 \$	148.00 \$	503.00
210-03301	EPC	4	0.51	0.51	0.206	EcoDevelopments Windsor Inc.	↔	50.00 \$	21.00 \$	71.00
210-03305	EPC	4	1.06	1.06	0.429	EcoDevelopments Inc.	Ś	103.00 \$	43.00 \$	146.00
210-03307	EPC	4	0.97	0.97	0.393	Ostar Holdings Inc.	∽	94.00 \$	39.00 \$	133.00
210-03311	EPC	4	1.00	1.00	0.405	Nadwell Land Developments Ltd.	∽	97.00 \$	41.00 \$	138.00
210-03312	EPC	4	3.70	3.70	1.497	On the Green Indoor Golf Ltd.	∽	360.00 \$	150.00 \$	510.00
210-03316	EPC	4	0.49	0.49	0.198	1670313 Ontario Ltd.	Ś	48.00 \$	20.00 \$	68.00
210-03319	EPC	4	1.00	1.00	0.405	Deco Investments Inc.	∽	97.00 \$	41.00 \$	138.00
210-03320	EPC	4	2.00	2.00	0.809	1670313 Ontario Ltd.	∽	195.00 \$	81.00 \$	276.00
210-03329	EPC	4	1.26	1.26	0.510	Lakeshore Business Centre Ltd.	↔	123.00 \$	51.00 \$	174.00

4. PRIVATELY (DWNED - NON-	AGRICULTUR	AL LANDS: (Continued						
Tax Roll	Con. or Plan	Lot or Part	Acres	Acres	Hectares			Value of	Value of	TOTAL
<u>Numbe</u> r	Number	<u>of Lot</u>	Owned	Affected	Affected	Owner's Name		<u>Benefit</u>	<u>Outlet</u>	VALUE
210-03335	EPC	4	0.93	0.93	0.376	Town of Lakeshore	÷	91.00 \$	38.00 \$	129.00
210-03350	EPC	4	1.00	1.00	0.405	MDK Industries	\$	\$ 00.76	41.00 \$	138.00
210-03352	EPC	4	0.93	0.93	0.376	On the Green Indoor Golf Ltd.	\$	91.00 \$	38.00 \$	129.00
210-03353	EPC	4	1.00	1.00	0.405	On the Green Indoor Golf Ltd.	\$	\$ 00.76	41.00 \$	138.00
210-03355	EPC	4	2.82	2.82	1.141	1000264038 Ontario Inc	\$	275.00 \$	115.00 \$	390.00
210-03357	EPC	4	1.00	1.00	0.405	On the Green Indoor Golf Ltd.	÷	\$ 00.76	41.00 \$	138.00
210-03359	EPC	4	1.00	1.00	0.405	Eissa Holdings Inc.	÷	\$ 00.76	41.00 \$	138.00
210-03360	EPC	4	1.00	1.00	0.405	Mrkalj Holding Corp. Trustee	\$	\$ 00.76	41.00 \$	138.00
210-03362	EPC	4	1.00	1.00	0.405	James Dorner	\$	\$ 00.76	41.00 \$	138.00
210-03380	EPC	4	2.23	2.23	0.902	James Sylvestre Developments	÷	217.00 \$	91.00 \$	308.00
210-03385	EPC	4	1.54	1.54	0.623	307 Croft Drive ULC	Ş	150.00 \$	63.00 \$	213.00
210-03390	EPC	4	1.99	1.99	0.805	EcoDevelopments - 2015 Inc.	÷	194.00 \$	81.00 \$	275.00
210-03400	EPC	4	44.49	20.59	8.333	Town & Country Communities Ltd.	\$	2,004.00 \$	3,601.00 \$	5,605.00
	Total on Privat	tely Owned - N	lon-Agricul	tural Lands			•	5,126.00 \$	4,908.00	10,034.00
5. PRIVATELY (JWNED - AGRI	CULTURAL LAN	ADS (granta	able):						
Tax Roll Number	Con. or Plan Number	Lot or Part of Lot	Acres Owned	Acres Affected	Hectares Affected	Owner's Name		Value of Benefit	Value of Outlet	TOTAL VALUE
210-03310	ЕРС	4	55 0	55 0	276 U	lames Svilvestre Develonments I td	¥	\$ 00 222	95 DD \$	00 C C E
210-03325	EPC	. 4	4.42	4.42	1.789	James Sylvestre Developments	↔ ↔	430.00 \$	180.00 \$	610.00
	Totol on Duine				-			2E7 00 \$	27E 00	00 00
		tely Uwnea - A	gricultural	Lands (gran	table)		•	¢ 00.7cg	. 00.612	932.00
TOTAL ASSESS	MENT			78.37	31.716		Ŷ	10,000.00 \$	10,000.00	20,000.00

1 Hectare = 2.471 Acres

😰 Peralta Engineering

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APPENDIX C-2

Future Maintenance Schedule Downstream Section (Station 0+058.9 to Station 0+240.9)

Reperalta Engineering

Engineer's Report - Webbwood Drain - Analysis for Town & Country Communities March 19, 2025

For Flushing and Cleaning Only

Downstream Section (Station 0+058.9 to Station 0+240.9)

3. MUNICIPAL LANDS:

Tax Roll	Con. or Plan	Lot or Part	Acres	Acres	Hectares		>	alue of	Value of	TOTAL
Number	Number	<u>of Lot</u>	Owned	Affected	Affected	<u>Owner's Name</u>		<u>senefit</u>	<u>Outlet</u>	VALUE
East Pike Creek	Road			1.80	0.728	Municipality of Lakeshore	↔	632.00 \$	170.00 \$	802.00
Croft Drive				5.00	2.023	Municipality of Lakeshore	\$	175.00 \$	488.00 \$	663.00
Prospect Drive				0.49	0.198	Municipality of Lakeshore	\$	ک ۱	48.00 \$	48.00
Un-Opened Roa	d			1.28	0.518	Municipality of Lakeshore	\$	ک ۱	125.00 \$	125.00
County Road 22				10.38	4.201	County of Essex	\scrimeters}	3,642.00 \$	1,101.00 \$	4,743.00

6,381.00

₩

1,932.00

₩

4,449.00

Total on Municipal Lands...... \$

4. PRIVATELY OWNED - NON-AGRICULTURAL LANDS:

a; d)
5 3.65 1.477
1 0.51 0.206
5 1.06 0.429
7 0.97 0.393
0 1.00 0.405
3.70 1.497
9 0.49 0.198
0 1.00 0.405
0.809 0.809
5 1.26 0.510

Page 1 of 2

4. PRIVATELY (OWNED - NON-	-AGRICULTUR	al Lands: (Continued						
Tax Roll	Con. or Plan	Lot or Part	Acres	Acres	Hectares			Value of	Value of	TOTAL
Number	Number	<u>of Lot</u>	Owned	Affected	Affected	Owner's Name		<u>Benefit</u>	<u>Outlet</u>	VALUE
210-03335	EPC	4	0.93	0.93	0.376	Town of Lakeshore	\$	ې ۲	15.00 \$	15.00
210-03350	EPC	4	1.00	1.00	0.405	MDK Industries	\$	۰ ۲	16.00 \$	16.00
210-03352	EPC	4	0.93	0.93	0.376	On the Green Indoor Golf Ltd.	\$	۰ ج	15.00 \$	15.00
210-03353	EPC	4	1.00	1.00	0.405	On the Green Indoor Golf Ltd.	∿	۰ ج	16.00 \$	16.00
210-03355	EPC	4	2.82	2.82	1.141	1000264038 Ontario Inc	∿	82.00 \$	46.00 \$	128.00
210-03357	EPC	4	1.00	1.00	0.405	On the Green Indoor Golf Ltd.	\$	۰ ۲	16.00 \$	16.00
210-03359	EPC	4	1.00	1.00	0.405	Eissa Holdings Inc.	\$	۰ ج	16.00 \$	16.00
210-03360	EPC	4	1.00	1.00	0.405	Mrkalj Holding Corp. Trustee	∿	۰ ج	16.00 \$	16.00
210-03362	EPC	4	1.00	1.00	0.405	James Dorner	÷	105.00 \$	16.00 \$	121.00
210-03380	EPC	4	2.23	2.23	0.902	James Sylvestre Developments	∽	235.00 \$	36.00 \$	271.00
210-03385	EPC	4	1.54	1.54	0.623	307 Croft Drive ULC	Ş	162.00 \$	25.00 \$	187.00
210-03390	EPC	4	1.99	1.99	0.805	EcoDevelopments - 2015 Inc.	\$	175.00 \$	32.00 \$	207.00
210-03400	EPC	4	44.49	20.59	8.333	Town & Country Communities Ltd.	∽	ده ۱	1,440.00 \$	1,440.00
	Total on Privat	tely Owned - N	Jon-Agricul:	tural Lands			∽	1,483.00 \$	1,958.00 \$	3,441.00
5. PRIVATELY (owned - Agric	CULTURAL LAN	NDS (granta	ible):	-					
Tax Roll <u>Numbe</u> r	Con. or Plan <u>Number</u>	Lot or Part <u>of Lot</u>	Acres Owned	Acres <u>Affected</u>	Hectares Affected	Owner's Name		Value of <u>Benefit</u>	Value of <u>Outlet</u>	TOTAL <u>VALUE</u>
210-03310	EPC	4	2.33	2.33	0.943	James Sylvestre Developments Ltd.	Ś	68.00 \$	38.00 \$	106.00
210-03325	EPC	4	4.42	4.42	1.789	James Sylvestre Developments	Ś	،	72.00 \$	72.00
	Total on Privat	tely Owned - A	\gricultural	Lands (grant	table)		\$	68.00 \$	110.00 \$	178.00

😰 Peralta Engineering

1 Hectare = 2.471 Acres

TOTAL ASSESSMENT

Page 2 of 2

10,000.00

4,000.00 \$

6,000.00 \$

₩

31.716

78.37

APPENDIX C-3

Future Maintenance Schedule Upstream Section (Station 0+240.9 to Station 1+318.5)

Reperalta Engineering

FUTURE MAINTENANCE SCHEDULE OF ASSESSMENT

For Flushing and Cleaning Only

Upstream Section (Station 0+240.9 to Station 1+318.5)

3. MUNICIPAL LANDS:

Tax Roll <u>Numbe</u> r	Con. or Plan <u>Number</u>	Lot or Part <u>of Lot</u>	Acres Owned	Acres Affected	Hectares Affected	Owner's Name	2	Value of <u>Benefit</u>	Value of <u>Outlet</u>	TOTAL <u>VALUE</u>
East Pike Creek	Road			0.49	0.198	Municipality of Lakeshore	Ś	1,625.00 \$	26.00 \$	1,651.00
Croft Drive				3.59	1.453	Municipality of Lakeshore	Ş	-	187.00 \$	187.00
Prospect Drive				0.49	0.198	Municipality of Lakeshore	Ś	•	25.00 \$	25.00
Jn-Opened Roi	p			1.28	0.518	Municipality of Lakeshore	φ	236.00 \$	67.00 \$	303.00

2,166.00

305.00 \$

1,861.00 \$

Total on Municipal Lands...... \$

4. PRIVATELY OWNED - NON-AGRICULTURAL LANDS:

TOTAL <u>VALUE</u>	30.00	110.00	15.00	30.00	59.00	323.00	209.00	199.00	198.00	200.00
/alue of <u>Outlet</u>	30.00 \$	110.00 \$	15.00 \$	30.00 \$	59.00 \$	41.00 \$	29.00 \$	31.00 \$	29.00 \$	31.00 \$
/alue of V <u>Benefit</u>	۰ ۲	۰ ج	۰ ج	۰ ج	۰ ج	282.00 \$	180.00 \$	168.00 \$	169.00 \$	169.00 \$
	S	\$	\$	\$	\$	\$	\$	\$	\$	\$
Owner's Name	Nadwell Land Developments Ltd.	On the Green Indoor Golf Ltd.	1670313 Ontario Ltd.	Deco Investments Inc.	1670313 Ontario Ltd.	Lakeshore Business Centre Ltd.	Town of Lakeshore	MDK Industries	On the Green Indoor Golf Ltd.	On the Green Indoor Golf Ltd.
Hectares <u>Affected</u>	0.405	1.497	0.198	0.405	0.809	0.510	0.376	0.405	0.376	0.405
Acres <u>Affected</u>	1.00	3.70	0.49	1.00	2.00	1.26	0.93	1.00	0.93	1.00
Acres Acres Owned Affected	1.00 1.00	3.70 3.70	0.49 0.49	1.00 1.00	2.00 2.00	1.26 1.26	0.93 0.93	1.00 1.00	0.93 0.93	1.00 1.00
Lot or Part Acres Acres of Lot Owned Affected	4 1.00 1.00	4 3.70 3.70	4 0.49 0.49	4 1.00 1.00	4 2.00 2.00	4 1.26 1.26	4 0.93 0.93	4 1.00 1.00	4 0.93 0.93	4 1.00 1.00
Con. or Plan Lot or Part Acres Acres <u>Number of Lot Owned</u> Affected	EPC 4 1.00 1.00	EPC 4 3.70 3.70	EPC 4 0.49 0.49	EPC 4 1.00 1.00	EPC 4 2.00 2.00	EPC 4 1.26 1.26	EPC 4 0.93 0.93	EPC 4 1.00 1.00	EPC 4 0.93 0.93	EPC 4 1.00 1.00

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4. PRIVATELY	owned - Non.	-AGRICULTUR	AL LANDS:	Continued						
Tax Roll	Con. or Plan	Lot or Part	Acres	Acres	Hectares			Value of	Value of	TOTAL
<u>Numbe</u> r	Number	<u>of Lot</u>	Owned	Affected	Affected	Owner's Name		<u>Benefit</u>	<u>Outlet</u>	VALUE
210-03355	EPC	4	2.82	2.01	0.813	1000264038 Ontario Inc	∽	521.00 \$	62.00 \$	583.00
210-03357	EPC	4	1.00	1.00	0.405	On the Green Indoor Golf Ltd.	∽	169.00 \$	31.00 \$	200.00
210-03359	EPC	4	1.00	1.00	0.405	Eissa Holdings Inc.	∽	175.00 \$	31.00 \$	206.00
210-03360	EPC	4	1.00	1.00	0.405	Mrkalj Holding Corp. Trustee	∽	157.00 \$	31.00 \$	188.00
210-03362	EPC	4	1.00	0.05	0.020	James Dorner	∽	187.00 \$	3.00 \$	190.00
210-03380	EPC	4	2.23	0.12	0.049	James Sylvestre Developments	∽	385.00 \$	7.00 \$	392.00
210-03385	EPC	4	1.54	0.0	0.036	307 Croft Drive ULC	↔	275.00 \$	5.00 \$	280.00
210-03390	EPC	4	1.99	0.57	0.231	EcoDevelopments - 2015 Inc.	∿	344.00 \$	8.00 \$	352.00
210-03400	EPC	4	44.49	20.59	8.333	Town & Country Communities Ltd.	∽	1,958.00 \$	1,944.00 \$	3,902.00
	Total on Privat	tely Owned - N	Von-Agricul	tural Lands			م	5,139.00 \$	2,527.00 \$	7,666.00
5. PRIVATELY (owned - Agri	CULTURAL LAI	NDS (grantë	able):						
Tax Roll	Con. or Plan	Lot or Part	Acres	Acres	Hectares			Value of	Value of	TOTAL
<u>Numbe</u> r	<u>Number</u>	<u>of Lot</u>	Owned	Affected	Affected	<u>Owner's Name</u>		<u>Benefit</u>	<u>Outlet</u>	VALUE
210-03310	EPC	4	2.33	1.26	0.510	James Sylvestre Developments Ltd.	↔	۰ ۲	37.00 \$	37.00
210-03325	EPC	4	4.42	4.42	1.789	James Sylvestre Developments	∽	۰ ک	131.00 \$	131.00

1 Hectare = 2.471 Acres

TOTAL ASSESSMENT

😰 Peralta Engineering

168.00

₩

168.00

₩

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Total on Privately Owned - Agricultural Lands (grantable)...... \$

20.749

51.27

10,000.00

3,000.00 \$

7,000.00 \$

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