

Geotechnical

Building Sciences

Construction Testing & Inspections

Telephone (866) 217.7900 (705) 742.7900

Facsimile (705) 742.7907

Website cambium-inc.com

Mailing Address P.O. Box 325, Peterborough, Ontario Canada, K9J 6Z3

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Laboratory Peterborough



DGA

March 27, 2025

Kawartha Utility Services Ltd. 4108 ON-28 Lakefield, ON K0L 2H0

Attn: Fran Woods, Vice President, Kawartha Utility Services Ltd. Sent via email to: fran@kawarthautility.com

Re: Wetland Assessment at 4488 County Road 29, Douro-Dummer, County of Peterborough, Ontario Cambium Reference: 18842-002

Dear Fran Woods,

Cambium Inc. (Cambium) was retained by Kawartha Utility Services Ltd. (the Client) to conduct a Wetland Assessment (the Study) at 4488 County Road 29, Douro-Dummer, County of Peterborough, Ontario. The subject property is approximately 13.1 acres in size and is currently vacant. We understand the Client is proposing construction of a commercial building and maintenance shop, with associated new entrance, parking, and septic bed, as detailed on the enclosed Concept Plan. Given the type and scale of development proposed, the entire property is considered the Site for this Study (see Figure 1, enclosed).

No natural heritage or hydrologic features are provincially mapped on the Site. This Study was conducted to confirm the presence of wetlands in relation to Ontario Regulation 41/24 and the *Conservation Authorities Act*, as administered by the Otonabee Region Conservation Authority (ORCA). Section 2. (3) of the regulation prohibits development activities within 30 m of a wetland. The regulation defines 'development activity' as:

(a) the construction, reconstruction, erection or placing of a building or structure of any kind,

(b) any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure,



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(c) site grading, or

(d) the temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere

The intent of this study was to identify and delineate wetlands within the Site at the request of the Client to facilitate compliance with O. Reg. 41/24.

LOCATION CONTEXT

The Site is located in a rural area approximately 2 km north of the town of Lakefield. The Site fronts County Road 29 to the north and County Road 28 to the south. It is surrounded by agricultural and rural lands to the north, south, east, and west.

FIELD INVESTIGATIONS

Ecological investigations were completed on September 18, 2024 by a qualified Cambium ecologist, as summarized in Table 1. Survey stations/areas are shown on Figure 2. Representative Site photos are also enclosed with this letter. A discussion of the survey findings is presented below.

Table 1 Field Investigations

Activity	Details
Vascular Plant Survey and Community Classification	Single-season vegetation survey and community classification according to the Ecological Land Classification (ELC) System for Southern Ontario.
Wetland Boundary Delineation	The wetland boundary delineation was carried out by Cambium staff certified in the Ontario Wetland Evaluation System (OWES), according to the 50% wetland vegetation rule. Boundaries on the Site were recorded with handheld GPS and marked with pink flagging tape with black dots.
Aquatic and Drainage Feature Mapping	Surveyed the Site for any unmapped watercourses, waterbodies, springs/seeps, or other surface drainage features.

A visual summary of the results of the field investigation results is shown on Figure 2. Representative Site photos of each vegetation community are also enclosed with this letter. A discussion of the survey findings is presented below.



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The majority of Site was comprised of fallow agricultural fields (Community 1) with exposed soil and scattered vegetation and cultural meadows (Community 2). Hedgerows (Community 3) present in between fields were comprised of common tree and shrub species, with ground cover similar to the adjacent fields. A Staghorn Sumac thicket was present in the southern portion of Site (Community 4).

A small wetland (Communities 5 and 6) was present at the west edge of the Site, as shown on Figure 2. Community 6 was on Site and Community 5 (contiguous with Community 6) extended onto adjacent lands. The edge of Community 6 on the Site was flagged with pink tape with black dots. Community 6 was characterized as a young deciduous swamp dominated by Freeman's Maple (*Acer × freemanii*), with Balsam Poplar (*Populus balsamifera*), Trembling Aspen (*Populus tremuloides*), and Bebb's willow (*Salix bebbiana*) associates. The understory included Red-osier Dogwood (*Cornus sericea*) and Pussy Willow (*Salix discolor*) and the groundcover was comprised of Swamp Milkweed (*Asclepias incarnata*), Reed Canary Grass (*Phalaris arundinacea*), and Narrow-leaved cattail (*Typha angustifolia*). This community is bordered by small Black Locust (*Robinia pseudoacacia*) dominated forest (Community 7).

Community 5 is a meadow marsh dominated by Reed-canary Grass (*Phalaris arundinacea*) with Canada Goldenrod (*Solidago canadensis*), Canada Rush (*Juncus canadensis*), Grass-leaved Goldenrod (*Euthamia graminifolia*), Eastern Panicled Aster (*Symphyotrichum lanceolatum*), and Purple-stemmed Aster (*Symphyotrichum puniceum*). Community 5 ties into the roadside ditch, representing the only portion of the ditch dominated by wetland vegetation; the remainder of the ditch was generally dominated by terrestrial vegetation species. Based on the condition of the ditch observed between the wetland and the existing Site entrance (near the northern corner of the Site), it is understood to provide an ephemeral drainage function (i.e., primarily conveying snowmelt and occasional heavy precipitation away from the road). There is no culvert under the existing entrance to the Site (i.e., indicating no surface water connection between Communities 5/6 and the off-site wetland to the east, discussed further below).



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No surface water was observed in Communities 5 or 6. The wetlands are expected to contain seasonal surface water following snow melt.

Another unmapped wetland was observed off-site to the east (Community 8). Community 8 consisted of a meadow marsh with a central drainage feature connected to a culvert under County Road 29. Based on topography, vegetation, and the existing Site entrance (which does not have a culvert), there is no present or historical connection between the wetland on the Site and the wetland to the east.

REGULATORY COMPLIANCE AND RECOMMENDATIONS

The above-detailed wetland communities are depicted on the enclosed Concept Plan and Figure 2. The wetland boundary on the Site (Community 6) was delineated in accordance with the wetland definition provided in Ontario Regulation 41/24 and the provincial Ontario Wetland Evaluation System for southern Ontario (MNRF 2022). The off-site wetland (Community 8) occurs approximately 65 m from the development footprint and outside the regulatory limit per O. Reg. 41/24, therefore delineation was not completed.

As stated above, Ontario Regulation 41/24 prohibits development activities (i.e., the building footprint as well as all site preparation and construction activities, grading, etc.) within 30 m of a wetland. Cambium understands that the Client has discussed the potential for an on-site wetland with ORCA staff during preconsultation for the development application, and ORCA indicated the need to confirm and address this feature.

Given the existing size and condition of the wetland that was field-verified through this Study, Cambium feels the 10 m setback is sufficient to protect the wetland, provided standard mitigation measures (e.g., erosion and sediment control measures, as well as standard practices to minimize harm to wildlife and maintain ecological function) are implemented. As such, the surveyed wetland boundary and a 10 m setback from the on Site wetland is shown on the enclosed Concept Plan and Figure 3, and appropriate mitigation measures are detailed in Table 2.



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Table 2 Best Management Practices

Potential Impact	Recommended Best Practice
Erosion and Sedimentation	Prior to any construction activities taking place, it is perimeter erosion and sediment control fencing should be installed between the wetland and up-gradient development activities. Fencing should be properly keyed into the ground and securely fastened to vertical supports spaced ≤ 2 m apart. This key control measure will help prevent sediment from entering surface water features (i.e., wetlands and the watercourse) in the surrounding landscape. All sediment fencing should be regularly maintained and kept in good working condition, until the area has been stabilized and/or successfully revegetated. Any observed overland drainage channels originating from Site, that may or may not have arisen as a result of erosion, should be directed to a check dam structure, prior to discharging to off-site areas. Construction activities that require earthworks (e.g., grading, excavation, etc.) should be scheduled to avoid dates of heavy rainfall events and times of high runoff volumes.
Wildlife: Birds (Disturbance and Harm)	Nesting birds and their nests, eggs, and young are protected under the federal <i>Migratory Birds Convention Act, 1994.</i> Vegetation clearing on the Site should occur outside the breeding bird season, which extends from April 1 to August 31 in the local area (as per Environment and Climate Change Canada Guidelines). If vegetation clearing or construction is to occur between April 1 to August 31, the vegetation should be investigated by a qualified biologist to confirm if any active nests are present, prior to site alteration. Vegetation clearing can proceed provided there are no active nests. If active nests are confirmed, the nests should be left undisturbed until young have fledged or the nest is determined to be inactive. Note that some birds nest on the ground and in low-lying vegetation and shrubs; therefore, all habitat types should be inspected prior to ground disturbance if removals are to occur during the breeding season.
Species at Risk (SAR; Threatened and Endangered)	Threatened and Endangered species are protected under the provincial <i>Endangered Species Act</i> . Observations of any threatened or endangered species, including most species of snakes and turtles, should be reported to the Natural Heritage Information Centre (NHIC). If any individuals are encountered, they should be photographed and allowed time to move out of harm's way. SAR should not be handled by unauthorized individuals.

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Potential	Recommended Best Practice
Impact	
Spread of Invasive Species	 Invasive species are becoming problematic throughout Ontario and can adversely impact our natural landscapes, including wetlands, woodlands, and watercourses. Best management practices to reduce the spread of invasive species include: Revegetate with species native to the local area. Request fill and compost from reputable sources that are conscious of the potential for the spread of invasive species via these media. Get to know the most common invasive species in the area. Brush off or clean any shoes, boots and equipment that have encountered invasive species before returning to the property. Equipment and vehicles coming into the work area should be free of soil and seeds that could introduce non-native and invasive species following the Clean Equipment for the Purposes of Invasive Species Prevention (Halloran, 2013) Immediately eradicate invasive species; put them in plastic bags and dispose of them in the garbage. Do not dispose of lawn or garden clippings in the forest or wetlands to avoid species introductions.
	Council: <u>Home - Ontario Invasive Plant Council</u> (ontarioinvasiveplants.ca) (OIPC, 2022)

Provided these recommendations are implemented, the proposed development is not anticipated to have a negative impact on the existing wetland. The reduced setback (10 m as opposed to 30 m per Ontario Regulation 41/24), would require a permit from ORCA.

It should be noted that this study was conducted from an ecological perspective and does not include a detailed assessment of the wetland as a flood hazard. However, based on local topography (wetland in bowl type depression) and presence of terrestrial tree species along the periphery (primarily Black Locust), it is anticipated that the slope immediately along the wetland edge generally



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contains the majority of seasonal flooding in this area; no signs of erosion or wetland development were observed above the slope.

CLOSING

This Study involved confirmation of the wetland boundary on the Site through characterization of the local vegetation and drainage conditions. Based on observations made during the field investigations, a reduced wetland buffer of 10 m is anticipated to provide the necessary protection to the wetland on the Site, provided the best management practices detailed herein are implemented. The reduced 10 m wetland setback would require a permit from ORCA, which must be obtained prior to any Site alteration or construction within 30 m of the wetland boundary. If you have any questions or would like to discuss the contents of this letter, please feel free to contact the undersigned at 705.742.7900.

Best regards,

Cambium Inc.

Jaclyn Rodo, H.B.Sc. Project Manager / Senior Ecologist Kristina Domsic, B.E.S. Coordinator / Ecologist

BH/KD/jr

Encl. Cambium Qualifications & Limitations
 Concept Plan
 Figure 1: Site Location and Policy Areas
 Figure 2: Natural Heritage Features and Ecological Survey Stations
 Figure 3: Natural Heritage Constraints
 Representative Site Photos

Copies: Chris Conti, Senior Planner, EcoVue Consulting Services Inc, <cconti@ecovueconsulting.com>

\\cambiumincstorage.file.core.windows.net\projects\18800 to 18899\18842-002 Kawartha Utility -EIS- 4488 County Rd 29\Deliverables\Wetland Assessment\Final\2025-03-27 LTR Wetland Assessment 4488 County Rd 29.docx



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CAMBIUM QUALIFICATIONS AND LIMITATIONS

Limited Warranty

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In performing work on behalf of a client, Cambium relies on its client to provide instructions on the scope of its retainer and, on that basis, Cambium determines the precise nature of the work to be performed. Cambium undertakes all work in accordance with applicable accepted industry practices and standards. Unless required under local laws, other than as expressly stated herein, no other warranties or conditions, either expressed or implied, are made regarding the services, work or reports provided.

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The findings and results presented in reports prepared by Cambium are based on the materials and information provided by the client to Cambium and on the facts, conditions and circumstances encountered by Cambium during the performance of the work requested by the client. In formulating its findings and results into a report, Cambium assumes that the information and materials provided by the client or obtained by Cambium from the client or otherwise are factual, accurate and represent a true depiction of the circumstances that exist. Cambium relies on its client to inform Cambium if there are changes to any such information and materials. Cambium does not review, analyze or attempt to verify the accuracy or completeness of the information or materials provided, or circumstances encountered, other than in accordance with applicable accepted industry practice. Cambium will not be responsible for matters arising from incomplete, incorrect or misleading information or from facts or circumstances that are not fully disclosed to or that are concealed from Cambium during the provision of services, work or reports.

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When preparing reports, Cambium considers applicable legislation, regulations, governmental guidelines and policies to the extent they are within its knowledge, but Cambium is not qualified to advise with respect to legal matters. The presentation of information regarding applicable legislation, regulations, governmental guidelines and policies is for information only and is not intended to and should not be interpreted as constituting a legal opinion concerning the work completed or conditions outlined in a report. All legal matters should be reviewed and considered by an appropriately qualified legal practitioner.

Site Assessments

A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Cambium's work or report considers any locations or times other than those from which information, sample results and data was specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those extrapolations.

Only conditions at the site and locations chosen for study by the client are evaluated; no adjacent or other properties are evaluated unless specifically requested by the client. Any physical or other aspects of the site chosen for study by the client, or any other matter not specifically addressed in a report prepared by Cambium, are beyond the scope of the work performed by Cambium and such matters have not been investigated or addressed.

<u>Reliance</u>

Cambium's services, work and reports may be relied on by the client and its corporate directors and officers, employees, and professional advisors. Cambium is not responsible for the use of its work or reports by any other party, or for the reliance on, or for any decision which is made by any party using the services or work performed by or a report prepared by Cambium without Cambium's express written consent. Any party that relies on services or work performed by Cambium or a report prepared by Cambium without Cambium's express written consent, does so at its own risk. No report of Cambium may be disclosed or referred to in any public document without Cambium's express, does, expense, fine, penalty or other such thing which may arise or result from the use of any information, recommendation or other matter arising from the services, work or reports provided by Cambium.

Limitation of Liability

Potential liability to the client arising out of the report is limited to the amount of Cambium's professional liability insurance coverage. Cambium shall only be liable for direct damages to the extent caused by Cambium's negligence and/or breach of contract. Cambium shall not be liable for consequential damages.

Personal Liability

The client expressly agrees that Cambium employees shall have no personal liability to the client with respect to a claim, whether in contract, tort and/or other cause of action in law. Furthermore, the client agrees that it will bring no proceedings nor take any action in any court of law against Cambium employees in their personal capacity.













Photo 1 Representative photo of agricultural fields (Community 1) across the Site, September 2024.



Photo 2 Representative photo of cultural meadow areas on the periphery of the Site (Community 2), September 2024.





Photo 3 Representative photo of hedgerows on the Site (Community 3), September 2024.



Photo 4 Representative photo of the Sumac thicket on the Site (Community 4), September 2024.





Photo 5 Representative photo of the meadow marsh along the ditch at the northwest edge of the Site (Community 5), September 2024.



Photo 6 Representative photo of the swamp on the Site (Community 6), September 2024.





Photo 7 The flagged edge of the swamp on the Site (Community 6), September 2024.



Photo 8 Black Locust forest on the Site (Community 7), September 2024.





Photo 9 Meadow marsh on adjacent lands northeast of the Site (Community 8), Image sourced from Google Street View, dated October 2021.