

May 8, 2026

BEL 225334

Stephanie Bergman
Manager of Planning & Development
Municipality of Middlesex Centre
10227 Ilderton Road
Ilderton, ON N0M 2A0

via email: bergman@middlesexcentre.ca

Re: Preliminary Assessment and Terms of Reference for a Development Assessment Report (DAR) for 15117 Medway Road, Municipality of Middlesex Centre, Middlesex County

Dear Ms. Bergman:

Beacon Environmental Limited (Beacon) was retained by Heikal Group Inc. to complete a Development Assessment Report (DAR) for an Official Plan Amendment (OPA) and Zoning Bylaw Amendment (ZBA), and a future Site Plan Application (SPA) for a proposed development at 15117 Medway Road, in the Municipality of Middlesex Centre (hereafter the “subject property”). The location of the subject property is illustrated in **Figure 1**. A sports centre is proposed for the subject property as illustrated in **Attachment A**.

The purpose of this letter is to provide a Preliminary Natural Heritage Assessment to support the OPA/ZBA applications for the subject property and a Terms of Reference (TOR) for a DAR to be provided at the SPA stage.

Based on a discussion with Middlesex Centre and Middlesex County planning staff on April 24, 2026, it was agreed that the TOR could be combined with a preliminary assessment to support the OPA/ZBA application, and that more detailed level of assessment be provided at SPA. With approval of the OPA/ZBA, it is suggested that a holding provision may be placed on the subject property until additional environmental studies outlined in this TOR are completed to the satisfaction of the review agencies prior to site plan approval.

Natural heritage features on and adjacent to the subject property have been mapped by the Ministry of Natural Resources (MNR) as part of the Arva Moraine Provincially Significant Wetland (PSW). Woodlands on adjacent lands to the west are identified as Significant Woodlands in the Municipality’s Official Plan (OP). In addition, portions of West Stoney Creek and the Armitage Drain traverse the subject property, which are regulated by the Upper Thames Conservation Authority (UTRCA).

The purpose of the Scoped DAR is to identify the natural heritage features on and adjacent to the subject property, confirm natural heritage constraints (including feature limits and buffers), assess impacts of the proposed development on these features, and recommend mitigation measure to avoid or minimize impacts. The DAR is required to ensure the development proposal conforms to applicable environmental policies and regulations, including the *Species Conservation Act*, the Provincial Planning Statement, the Official Plans of Middlesex Centre and Middlesex County, and UTRCA policies.

Preliminary Assessment

A site visit was conducted by Beacon on November 10, 2025 and April 27, 2026 to review existing conditions with respect natural heritage and hydrological features on the subject property. The subject property contains an existing single detached dwelling, accessory building, driveway and lawn. The majority of the subject property consists of agricultural fields. Beacon confirmed the presence of the following natural heritage and hydrological features on and/or adjacent to the subject property:

- Floodplain
- PSW
- Other wetlands
- Watercourses/Fish Habitat
- Woodlands

Description of Natural Heritage and Hazard Features and Buffers

Floodplain

The subject property is constrained by floodplain associated with the two watercourses at the north end of the subject property as illustrated in **Attachment A**. With the exception of a driveway entrance, the proposed development is outside of the regulated floodplain as illustrated in **Attachment A**.

Wetlands

The subject property contains a portion of Arva Moraine PSW identified by MNR at the northwest corner of the subject property. Beacon also identified other wetland less than 2 ha in size along West Stoney Creek.

The portion of PSW that extends into the northwest corner of the subject property is a dug pond along the Armitage Drain, which is classified, based on the Ecological Land Classification (ELC) system, as a Shallow Aquatic (SA) feature, as well as a small area of cattail marsh situated directly west of the pond. An area of mineral meadow marsh (MAM2) dominated by Reed Canarygrass (*Phalaris arundinacea*), Common Reed (*Phragmites australis*), and cattails (*Typha* spp.) is located along the north side of West Stoney Creek.

It is UTRCA policy (2017) that no new development or site alteration be permitted within 30 metres of a PSW or wetlands greater than or equal to 2 hectares in size or within 15 metres of other wetlands less than 2 hectares in size, except for certain activities related to the reconstruction, alteration, or addition to existing buildings and structures.

To address these policies, a 30 m buffer was applied to the PSW on the subject property and a 15 m buffer was applied to other wetlands less than 2 ha in size as illustrated in **Attachment A**.

As illustrated in the Site Plan (**Attachment A**), the floodplain is the overriding constraint, well-exceeding the wetland buffers.

It is understood that UTRCA is in the process of updating its policy manual to align with changes to the *Conservation Authorities Act* and *Ontario Regulation 41/24*. Should there be any changes to UTRCA's wetland buffer policies, these will be reflected in the DAR submitted for SPA.

Watercourses/Fish Habitat

The subject property contains two watercourses: the Armitage Drain and West Stoney Creek. The Armitage Drain enters the property at the northwest corner, and West Stoney Creek enters the property at the northeast corner and flows west across the north side of the subject property.

The department of Fisheries and Oceans (DFO) classifies the Armitage Drain as Type F fish habitat, which is assigned to municipal drains having intermittent or ephemeral flow, usually dry for more than two consecutive months. Based on MNR data, there are fish records from 2013 at a sampling location of the Armitage Drain on the north side of Medway Road found the following fish species: Blacknosed Dace (*Rhinichthys atratulus*), Bluntnose Minnow (*Pimephales notatus*), Brook Stickleback (*Culaea inconstans*), Creek Chub (*Semotilus atromaculatus*), Fathead Minnow (*Pimephales promelas*), Johnny Darter (*Etheostoma nigrum*), Least Darter (*Etheostoma microperca*), Northern Redbelly Dace (*Chrosomus eos*), Pumpkinseed (*Lepomis gibbosus*), White Sucker (*Catostomus commersonii*). This fish community is largely indicative of warm water habitat. The sensitivity class assigned to the Armitage Drain by MNR is "non-sensitive".

A similar fish community is expected to occur in West Stoney Creek, which confluences with the Armitage Drain on west side of the subject property. Based the Ministry of Agriculture's on-line mapping (AgMaps), upstream of the subject property, north of Medway Road, West Stoney Creek has been tiled/piped (where it is referred to as the Highbury Armitage Drain) and is not expected to support fish.

Based on the warm water fish habitat and non-sensitive classification, 15 m buffers are recommended to both watercourses on the subject property, though the Armitage Drain receives a 30-buffer based on its location within the PSW. If, subject to further study, the DAR determines that a smaller or larger buffer is appropriate, then the development limits will be adjusted at SPA.

Significant Woodland

A treed area identified as a significant woodland in the Middlesex County OP is situated on adjacent lands directly west of the subject property. Based on Beacon's observations of this area in fall 2025 and spring 2026, this feature is a cultural woodland (CUW1) comprised of a dense understory layer of invasive European Buckthorn (*Rhamnus cathartica*) and an sparse/open canopy (<60% cover) consisting of Black Cherry (*Prunus serotina*), ash (*Fraxinus* sp.), White Cedar (*Thuja occidentalis*), White Pine (*Pinus strobus*), and Sugar Maple (*Acer saccharum*).

To establish a development limit for OPA/ZBA, Beacon recommends a 10 m buffer to this feature as illustrated in **Attachment A**. If, subject to further study, the DAR determines that a smaller or larger buffer is appropriate, then the development limits will be adjusted at SPA.

Summary

The proposed development is situated with an area of the subject property consisting of agricultural fields. Except for a watercourse crossing required to facilitate driveway access from Medway Road

and potentially a stormwater outlet to the creek, the proposed development avoids key natural heritage and hydrological features and natural hazards including floodplain, watercourses/fish habitat; PSW, other wetlands, and significant woodlands, as well as the recommended buffers.

Mitigation measures to minimize the extent and severity of direct impacts on natural heritage and hydrological features associated with the driveway crossing and stormwater outlet will be recommended in the DAR at SPA. Additionally, mitigation measures to prevent or minimize potential indirect impacts of development on natural heritage and hydrological features will also be provided in the DAR at SPA. Mitigation and best management practices to be consider in the DAR include, but are not limited to:

- Minimizing the number of new watercourse crossings;
- Situating driveway watercourse crossings outside of wetlands and associated buffers to the extent feasible. If impact avoidance is not possible, opportunities for restoration or off-setting should be considered to provide a net ecological benefit;
- Designing watercourse crossings to facilitate fish and wildlife movement;
- Designing watercourse crossings to accommodate the floodplain per UTRCA requirements;
- Implementing erosion and sediment control plans during construction;
- Implementing low impact development (LID) and/or other SWM practices to minimize impacts on watercourses and wetlands, subject to hydrogeological study;
- Utilizing bird-friendly lighting design;
- Implementing buffer naturalization plantings and other natural heritage system enhancements
- Undertaking construction during the appropriate seasonal timing windows to avoid impacts on breeding birds and spawning fish.

DAR Work Plan

A DAR will be submitted to support the SPA, which will involve more detailed seasonal surveys of flora and fauna to characterize and evaluate the nature features on and adjacent to the subject property. Based on the seasonal surveys, the DAR will confirm or refine the feature limit and buffer recommendations discussed in the Preliminary Assessment above and provide an in-depth assessment of potential direct and indirect impacts of development on the natural features and provide mitigation recommendation to avoid or sufficiently minimize impacts.

The following work plan is based on Beacon's review of the pre-consultation comments from the UTRCA and the Municipality, input from the County's peer review consultant, and our understanding of the proposed development and the subject property's environmental context.

Background Review

Beacon will review background information sources and policy documents related to the subject property including:

- Provincial Planning Statement (2024);
- Middlesex County OP (2024);
- UTRCA policies;
- UTRCA mapping and watershed information;
- Provincially Tracked Species Layer from Ontario GeoHub

- Ontario Breeding Bird Atlas;
- Ontario Reptile and Amphibian Atlas;
- Natural Heritage Information Centre (NHIC) Data via the Make-A-Map application;
- Species at risk range maps <https://www.ontario.ca/environment-and-energy/species-risk-ontario-list>;
- High Resolution aerial photography of the property; and
- Natural and physical feature layers from GeoHub — these geospatial layers include wetlands (provincially significant and un-evaluated wetlands), and watercourses with thermal regime.

Field Investigations (April – June 2026)

A site visit was conducted by Beacon on November 10, 2025 to review existing conditions with respect to natural heritage features on the subject property, at which time wetland and woodland features were delineated.

As discussed with the Town and County, the preliminary assessment contained herein with respect to natural feature limits and buffers is sufficient to support the OPA/ZBA application.

To complete the DAR for SPA, the following field investigations will be undertaken to characterize the natural heritage features and functions of the subject property:

- One vegetation inventory, including Ecological Land Classification and flora inventory (June 2026)
- Three amphibian surveys following the Marsh Monitoring Program (MMP) protocol (April-June 2026)
- Two Breeding Bird Surveys (May 28-July 7, 2026)
- One Aquatic Habitat Assessment following a modified Ontario Stream Assessment Protocol (June 2026)
- Wetland staking if required by UTRCA (June 2026)

Beacon will also screen the subject property for potential habitat for threatened or endangered species to ensure the proposal conforms with the Ontario *Species Conservation Act* and Federal *Species at Risk Act*. Surveys for threatened or endangered species will be undertaken as required based on the presence of potentially suitable habitat and the likelihood of impacts to the species or habitat.

Development Assessment Report

Upon approval of the OPA/ZBA and completion of the field investigations outlined above, Beacon will prepare a DAR for SPA with our findings and recommendations. The DAR report will include:

- A description of the natural heritage features on the subject property;
- Boundary delineation of natural heritage features and areas;
- An assessment of natural heritage constraints based on applicable environmental regulations, policies, and guidelines;
- A description of the proposed development;
- An assessment of potential direct or indirect impacts on the natural heritage and/or hydrological features related to the proposed development;

- Mitigation recommendations to avoid or minimize impacts to the natural heritage or hydrological features and / or functions
- An assessment of policy conformity.

Conclusion

This Preliminary Assessment and DAR Terms of Reference has been prepared for an OPA/ZBA application and SPA for development of a sports centre at 15117 Medway Road in Middlesex Centre.

The Preliminary Assessment presented herein identifies key natural heritage and hydrological features, including wetlands, watercourses/fish habitat, and woodlands associated with the subject property and adjacent lands and provides preliminary buffer recommendations for the purpose of establishing development limits for the OPA/ZBA applications.

The proposed development is situated within an area comprised of agricultural fields. With the exception of a watercourse driveway crossing and potentially a stormwater outlet to the creek, the proposed development avoids key natural heritage and hydrological features and natural hazards including floodplain, watercourses/fish habitat; PSW, other wetlands, and significant woodlands, as well as the recommended buffers.

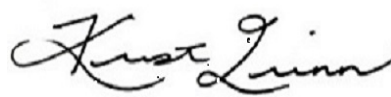
The DAR will involve detailed surveys for flora and fauna to characterize and evaluate the natural heritage and hydrological features on and adjacent to the subject property, confirm or refine natural heritage constraints (feature limits and buffers) to establish development limits, assess direct and indirect impacts of the development concept on the natural heritage and hydrological features, and identify mitigation and enhancement measures to avoid or minimize the extent, duration, and severity of direct and indirect impacts on natural heritage features. The DAR will incorporate relevant findings and recommendations of companion technical reports. The DAR will also address how the development proposal conforms to applicable provincial, municipal and conservation authority policies and regulations.

Prepared by:
Beacon Environmental Ltd.

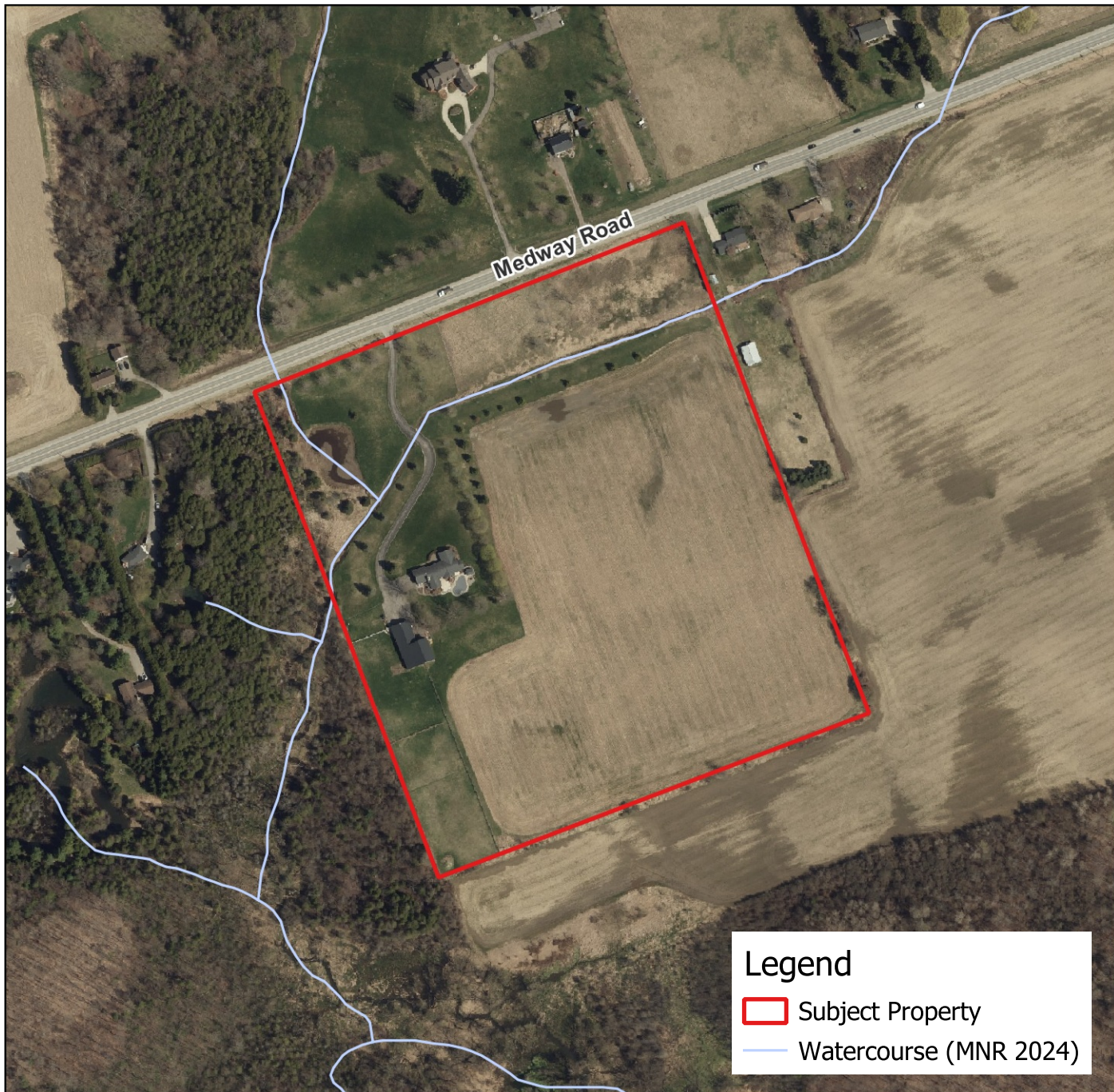




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Reviewed by:
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Site Location		Figure 1
15117 Medway Road, Middlesex Centre		
		Project: 225334 Last Revised: April 2026
Client: Heikal Group Inc.		Prepared by: BD Checked by: DW
	1:4,000	Inset Map: 1:40,000
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