
Stovel and Associates Inc.
Planners, Agrologists and Environmental Consultants

December 27, 2021

Township of Puslinch
7404 Wellington Road 34
Puslinch, ON
N0B 2J0

Attention: Ms. Lynne Banks

RE: EIS Addendum Report - Audrey Meadows Ltd. – Part Lots 17, 18, and 19, Concession 8, Township of Puslinch

Stovel and Associates Inc. (“SAI”) and Lincoln Environmental Consultants Inc. (“LEC”) were retained by Audrey Meadows Ltd. to prepare an Environmental Impact Study (“EIS”) for a proposed development. The Township of Puslinch retained Natural Resource Solutions Inc. (“NRSI”) to peer review the EIS. NRSI’s letter (dated August 04, 2021) sets out several questions/concerns. The purpose of this letter is to address the comments of NRSI.

Please note that Audrey Meadows Ltd. has proposed an amendment to the Official Plan and Zoning By-law. The Zoning By-law will also include a Holding – H Zone provision. The Holding Zone provision sets out the following:

- *Prior to the removal of the holding symbol, draft plan approval for a plan of subdivision on the Subject Lands shall be required to be granted, together with entering of a Subdivision Agreement with the Township to satisfy all requirements, including financial, servicing, environmental and other requirements to the satisfaction of the Township.*

Based on this proposed approach, we recognize that some of the comments noted in the NRSI peer review would be most suited to be implemented via a condition of Draft Plan Approval and following the detailed lot layout set out in a surveyed plan such as the Plan of Subdivision.

In addition, Audrey Meadows Ltd. has requested its engineers, Triton Engineering Services Limited (“Triton”) to prepare a revision to the development concept (Drawing 01), resulting in a reduction of the number of lots to 22 (from 29). This revised development concept illustrates that the rear lot lines have been pulled back to the edge of the farm field and minimum rear yard setbacks have been established to protect the forest edge (i.e., 10 m from the dripline). All development proposed in this development concept will remain over 30 m from any wetland limit.

The wetland boundaries have been flagged, confirmed with the Grand River Conservation Authority (“GRCA”) and surveyed by Triton. Drawing 01 illustrates the proposed development concept showing the revised lot fabric and the relevant environmental setbacks. Two additional features were surveyed and referenced on Drawing 01: a) stone pile next to a parking area in the bush which is approximately 62.8 m from the north of the proposed development; and b) an ephemeral pond in the woodland which is approximately 137 m from the proposed development.

Further mitigation measures have been employed, namely:

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- A Tree Management Plan ("TMP") is recommended as a condition of development approval. The TMP will be completed by a qualified Ecologist/Landscape Architect or Arborist. The TMP will identify any trees that may need to be removed. At this point in the process, no forest tree removal is required. The TMP will also advise what additional trees should be planted (stating the number, size, species and planting/monitoring requirements) and if Woodland Edge Restoration and Enhancement measures are necessary. The removal of invasive exotics, such as Common Buckthorn is a reasonable measure that could be considered and easily implemented. The TMP will also establish construction mitigation for maintenance of the existing forest edge. At this point in the process, the suggested mitigation is the implementation of heavy-duty silt fence along the 10 m dripline setback, but the TMP will explore the need for additional mitigation measures at a later stage in the approvals process.
 - The use of permanent fencing with no gates along the rear lots of 9-16 is deemed useful, as these lots back onto the adjacent woodland. This fencing is likely to consist of paige-wire and post fencing to a height of 1.2 m which will help to control access and prevent encroachment.
 - Site activities will be restricted through a condition that will require activities to occur outside of the breeding bird season and under dry conditions.
 - Amphibian and Reptile surveys, as deemed necessary, can occur through the recommendation of a condition of Draft Plan Approval.

Our response to NRSI comments is noted below and is based on the revised development concept:

Habitat of Endangered or Threatened Species

NRSI recommended that fulsome vegetation and wildlife surveys, as well as a description of the timing, location and methods applied for the 2021 natural environment surveys be conducted.

Appendix 1 provides a summary of the field survey dates and field investigation methods for 2021.

It is important to recognize that many of the wetlands that are located on adjacent lands to this proposed development were inventoried and assessed to the satisfaction of the Township of Puslinch, County of Wellington and GRCA as part of the approval process for the existing subdivision. The field work included botanical, amphibian and wildlife (including birds) inventories. We are of the view that it is important to recognize and place weight on these prior surveys and findings.

As previously noted, additional field investigations, as deemed necessary, may be completed as a condition of Draft Plan Approval.

Appendix 2 provides a complete assessment and screening for the variety of Significant Wildlife Habitat ("SWH") types that occur onsite and within 120 m of the proposed development.

It is recognized that amphibian inventories were not completed for subject development. It is important to balance this with the fact that there will be no development on adjacent forest or wetland systems (and these systems are further protected by buffers as previously noted in this letter report). It is our respective opinion that the smallest of the unevaluated wetlands, SWT2-5, is not suitable amphibian breeding habitat since the wetland did not contain water in May.

These adjacent wetlands within 120 m of the existing subdivision were inventoried in 2004-07 and found not to be SWH for amphibians, in particular salamander breeding habitat. That is the reason why the existing Audrey Meadows subdivision was approved.

The ephemeral pool that was noted by NRSI staff is over 130 m from the proposed development. No further field study of this feature is recommended. No impacts on this feature will result from the proposed

development.

Many of the offsite features that may provide amphibian habitat are located on lands not owned by the applicant. During the field surveys, we noted many field signs indicating No Trespass.

Reptile surveys were not completed since the onsite habitat is not suitable for reptiles and the adjacent habitat will not be disturbed. The area identified by NRSI staff as a crevice in the forest to the north is illustrated in Appendix 3. This area is not a crevice, it is a former queuing/parking area for forest equipment. The area was graded, and the side slopes contain a variety of materials, including boulders, wood and rolls of wire fence. The area is over 60 m from the proposed development.

This area has been ground-truthed several times since 2004 and no indication of milksnakes was found.

With regard to bats, it is reasonable to consider some of the trees adjacent to the proposed development may be potential bat habitat trees. However, based on the revised development concept, no forest trees will be disturbed. We are of the respective opinion that no bat habitat inventory work is required at this stage of the process. As part of the TMP, the inventory of trees along the forest edge could be completed to identify potential bat habitat trees.

Woodlands

The dripline for the adjacent significant woodland has been surveyed and illustrated on the concept plan. No development is proposed within 10 m of the dripline, however the rear lot line will extend to the existing edge of the farm field/forest community.

A TMP will be a useful document, and we have recommended that the TMP be completed as a condition of development at a later stage in the planning process.

The use of silt fencing (at the 10 m setback limit) and rear lot fencing are among the recommendations that will minimize any potential impact on the adjacent woodland.

Wetlands

The wetland limits have been confirmed with GRCA staff and surveyed.

A minimum setback of 30 m from the wetland limit has been established (however, in most areas, the 10 m setback from the dripline provides a greater buffer to the adjacent wetland communities).

The use of the heavy-duty silt fence along the setback limits is suitable to protect the adjacent wetland areas.

Paige-wire and post fencing (or other similar fencing) along the rear lots is also recommended, as a condition of Draft Plan Approval.

Triton will provide a detailed assessment of the water balance as part of the studies that are to be completed as a condition of Draft Plan Approval.

Aquatic Resources

The closest portion of the adjacent watercourse has been surveyed. This feature is over 120 m from the proposed development application. No further ecological work on aquatic habitat features is needed to be recommended.

Appendix 3 illustrates photographs of the aquatic feature in question. This watercourse is an intermittent discharge channel at its closest proximity to the proposed development. Further downstream, a culvert has

been established. The culvert is elevated along the downstream outlet of the culvert. This creates a migratory barrier. At this location, the depth of water is less than 10 cm and becomes a diffuse channel as it enters another wetland. This location is approximately 160 m from the subject development. In proximity to the site, no fish species were observed. During the time of the site visit, the watercourse was shallow and flow was slow. A photograph of the elevated culvert is included in Appendix 3.

The use of silt fencing will ensure that no sediment is transported offsite. Therefore, there will be no impacts related to total suspended solids.

The Stormwater Management Plan illustrates that stormwater from the road will be routed to the southeast of the site. This area will also include an Infiltration Area to promote recharge of the groundwater.

The remaining surface water can be infiltrated on a lot-by-lot basis through onsite low impact development measures. The specifics of these measures will be addressed as a condition of Draft Plan approval.

The intervening topography between the subject property and the watercourse is comprised of an area of knob and kettle topography with narrow steep ridges and low flat areas (often consisting of small wetland pockets). Surface water will be infiltrated and likely deposit into the wetlands (or deeper ground water systems). The wetlands and seepage areas along the watercourse provide some of the water flow to the adjacent watercourse. There will be no thermal impact on these systems because the surface water from the lots will be infiltrated.

Please do not hesitate to contact me should you have any concerns or questions.

Yours truly,

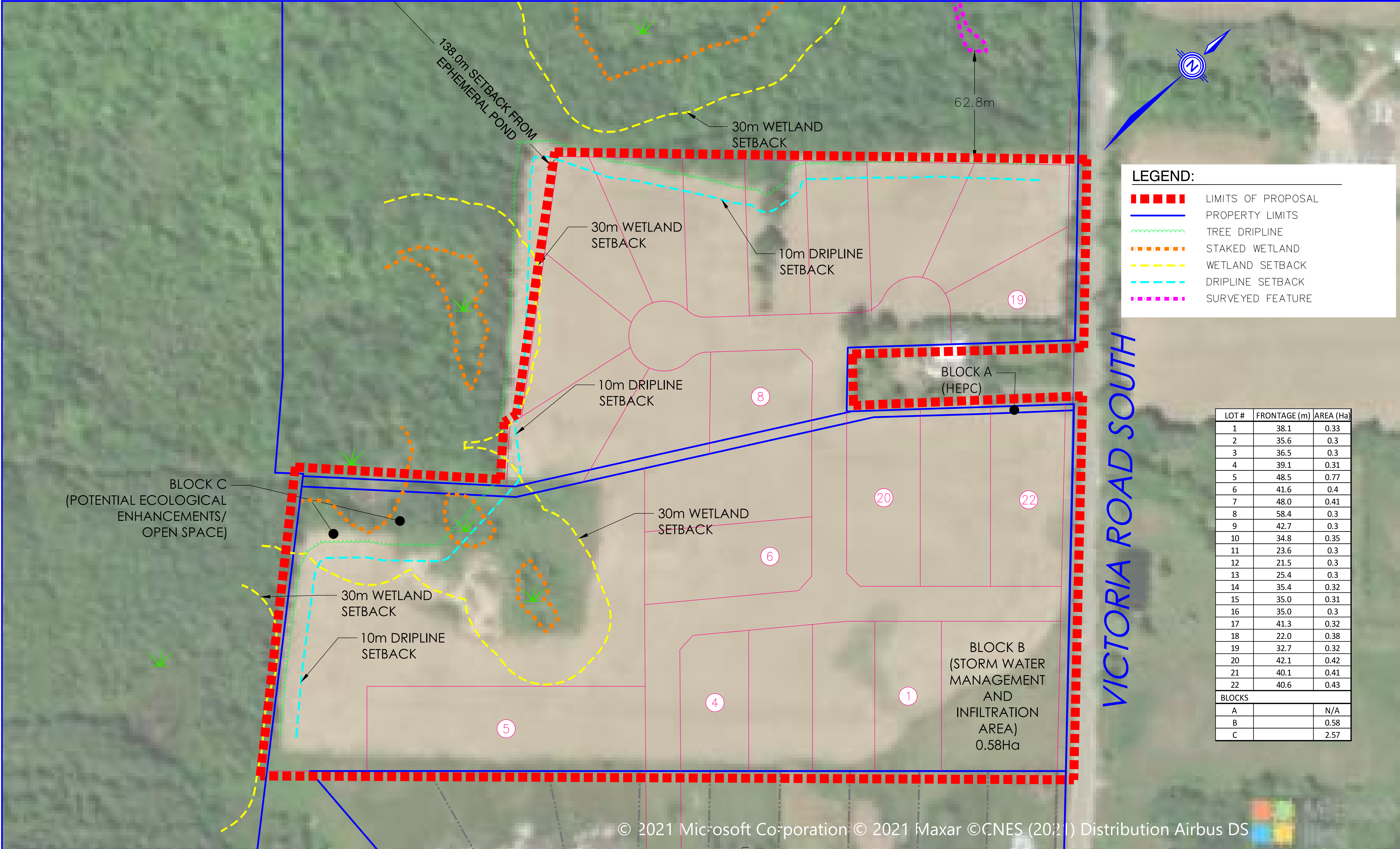


Robert P. Stovel, M.Sc., M.C.I.P., R.P.P., P.Ag.

and



Chris Hart, M.Sc., M.L.A



NOTES:							PROPOSED RESIDENTIAL DEVELOPMENT	AUDREY MEADOWS LTD. P.O. BOX 1805 GUEPLH, ONTARIO N1H 7A1	PROJECT No A2680	 <div>TRITON ENGINEERING SERVICES LIMITED Consulting Engineers</div>	SCALE: N.T.S. UNLESS OTHERWISE SHOWN	
									DESIGNED BY: C.J.D.W.			
									CHECKED BY: P.F.Z.			
									APPROVED BY: P.F.Z.			
									DATE: December 2021			
	2	2021/12/24	REVISED AS PER OPA & ZPA COMMENTS	R.S.			PARTS 17,18 & 19, CONCESSION 8 TOWNSHIP OF PUSLINCH	FIGURE 1			DRAWING NUMBER	01
	1	2021/11/25	NRSI SUBMISSION	R.S.								
	No	DATE	REVISION	INITIAL								

Appendix 1 Field Survey Summary

SURVEY TYPE	SURVEY PROTOCOL	DATES
Ecological Land Classification	Lee et al., 1998, 2008.	05 23 2021 07_06_2021 07 14 2021
Vegetation Inventories	Comprehensive Search by ELC Polygon	05 23 2021 07 06 2021 07 14 2021
Wetland Boundary Delineation	Ontario Wetland Evaluation System (MNRF 2014) (Wetland Boundary Delineation)	09 30 2021
Wetland Boundary Inspection and Confirmation by GRCA	Inspection by Tony Zammit	10 14 2021
Amphibian Calling Surveys	Marsh Monitoring Program - Bird Studies Canada (March 2, 2014)	If required, to be completed as a condition of Draft Plan Approval. Any offsite studies would be subject to permission of neighbouring property owner.
Snake Emergence Surveys and species search	Comprehensive search of suitable habitat within the property and potential hibernaculum features. Use of snake cover board surveys.	If required, to be completed as a condition of Draft Plan Approval.
Bat Cavity Tree Assessment	MNRF 2017	If required, to be completed as a condition of Draft Plan Approval (Tree Management Plan).
Breeding Bird Surveys	Bird Studies Canada	05 23 2021 07 06 2021 07 14 2021

Appendix 2 - Summary of Candidate Significant Wildlife Habitat Categories - Audrey Meadows

SIGNIFICANT WILDLIFE HABITAT TYPE	ASSESSMENT RESULT
Raptor Wintering Areas	There is potential for hawks such as Red-tailed Hawk, Coopers Hawk and American Kestrel to find habitat on lands adjacent to the proposed development site. These birds favor a landscape habitat mix of open fields, scrub land and woodlands. In this case with land use dominated by agriculture opportunities are limited and will be about the same in a developed state. It is noted that a Red-tailed Hawk was seen flying over the site on May 23, 2021. Since the surrounding regional landscape is largely rural and natural it is expected that raptors are commonly sighted.
Wild Turkey Wintering Areas	There is potential for Wild Turkey to winter here at the west-central area of the former borrow pit near to the MAS 2-2 which is likely to have springs and has the kind of mixed habitat with Eastern White Cedar groupings for cover. It is noted that only one incidental Turkey sighting at a field edge occurred in 2021.
Reptile Hibernacula	No suitable habitat or surrounding habitat features to support this ecological function were found within the subject lands
Turtle Nesting Habitat	No suitable habitat or evidence of turtle nesting was found within the subject lands.
Amphibian Breeding Habitat (Woodland)	Targeted amphibian call surveys were not completed as the wetland and floodplain woodland features will be maintained outside of and buffered from development. Onsite communities were deemed either too small or with insufficient water-holding capacity to sustain breeding habitat to be considered Significant Wildlife Habitat.
Wildlife Habitat: Special Concern and Rare Wildlife Species	Potential habitat for Eastern Wood - Pewee and Wood Thrush is noted in adjacent forest (FOD5- 7).

1. Creek Area



2. Elevated Culvert



3. Edge of Equipment Parking Area

