

February 7, 2023

# Peer Review of Environmental Impact Study for 3852 Ganaraska Road, Garden Hill, Ontario - 2<sup>nd</sup> Submission

Prepared for

Municipality of Port Hope



## Introduction

The Municipality of Port Hope (MPH) is currently reviewing an application for a Draft Plan of Subdivision and Zoning By-law Amendment for 3852 Ganaraska Road in the rural settlement area of Garden Hill Hamlet. The MPH Official Plan designates the subject property as a 'Hamlet', 'General Agriculture', 'Natural Environment' and 'Floodplain' on Schedule C (Land Use). Schedule B of the Official Plan identifies the following 'Development Constraints' on the subject property:

- Wetland (unevaluated)
- Significant Woodlands
- Area of Natural and Scientific Interest

The subject property is also identified as 'low' constraint Significant Groundwater Recharge Area on Schedule B-3 (Drinking Water Source Protection Vulnerable Areas) of the Official Plan.

Policy C5.2.2 of the MPH Official Plan requires that a proponent complete an Environmental Impact Study (EIS) in accordance with Section C20.3 of the Official Plan. As part of the application an EIS was prepared by Cambium Inc. (dated April 14, 2022), on behalf of Mistral Land Development Inc., along with supporting documents. The Municipality, County and Conservation Authority provided comments on the first submission, which included comments from NSE prepared on behalf of the Municipality of Port Hope dated June 27, 2022. A revised EIS was submitted on September 8, 2022 with comments prepared by NSE on November 9, 2022. Following an agency meeting with the applicant and their consultants on November 15, 2022, a revised EIS was submitted on December 12, 2022. This letter provides comments in response to the third submission of the EIS dated December 12, 2022.

## Scope of Peer Review

This peer review of the three iterations of the EIS submitted by Cambium Inc. was undertaken in consideration of the standards by which an EIS should fulfill certain requirements to ensure that a development application will conform with applicable natural heritage policies and legislation. General guidance for undertaking an EIS to determine if a development proposal is consistent with the Provincial Policy Statement can be found in Section 13.0 of the Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005, Second Edition (Ontario Ministry of Natural Resources 2010) [NHRM 2010]. The Municipality of Port Hope provides specific direction for completing an EIS in Port Hope, as outlined in the Official Plan under Section C20.3. This policy identifies that the purpose of the EIS is to "determine whether a proposed development or infrastructure undertaken within or adjacent to lands identified as Natural Heritage on Schedules B or B1 or Natural Hazards on Schedules B2 or B1 will result in negative impacts to the feature or its ecological function and to determine whether a particular development is appropriate and to

recommend necessary mitigation measures where development is deemed to be appropriate in accordance to the policies of this Plan”.

A site visit was conducted on May 31<sup>st</sup>, 2022, with Sal Spitale of North-South Environmental Inc. (external peer reviewer with the Municipality of Port Hope), Cody Oram from Monument Geomatics and Estimating Inc., Andrea Coppins from Cambium Inc., Cody Woodcock and Ken Thajer from the Ganaraska Region Conservation Authority (GRCA), and Theodhora Merepeza, Vanessa Lightle and Sagar Babbar from the Municipality of Port Hope.

In addition to the three submissions of the EIS, the following documents were reviewed:

- Memo from GHD regarding “Evaluation of ANSI Pitted Outwash Plain in Proposed Rural Subdivision, Garden Hill, Cobourg, Ontario” prepared for JMCD Holdings Inc., dated 13 December 2021.
- Geotechnical Report, prepared by Terraspec Engineering Inc., dated May 6, 2021.
- Combined response matrix from applicant with responses provided by Cambium to NSE’s peer review memo.

This peer review memo provides comments on the Cambium EIS 3<sup>rd</sup> submission (December 12, 2022) as well as responses to the applicant’s response matrix indicating if NSE’s comments on previous two EIS submissions were addressed (see Appendix) or if additional assessment and review is required.

### Summary of Opinion

Several issues are considered outstanding and have been pulled out into a separate table from those comments that are considered addressed. The remaining issues should be straight forward to address and will not require any changes to the lot lines on the Site Plan / Draft Plan. The comments can be addressed in an EIS Addendum, rather than a revised EIS, that acknowledges the buffer line between the lot lines (and in some cases overlapping with the lot line) and the function the buffer is intended to provide (i.e., mitigate impacts to features and ecological functions), and recognizes that a setback is a separation of development from a feature/area/building (or regulated feature), and not necessarily informed by ecological considerations. Further, the Site Plan and Draft Plan should be updated and resubmitted with the term “setback” being replaced by the word “buffer and the cul-de-sac shifted to the south to accommodate an more ecologically appropriate buffer in this location.

Please contact the undersigned if you have any questions or require clarification on the comments.

Sincerely,



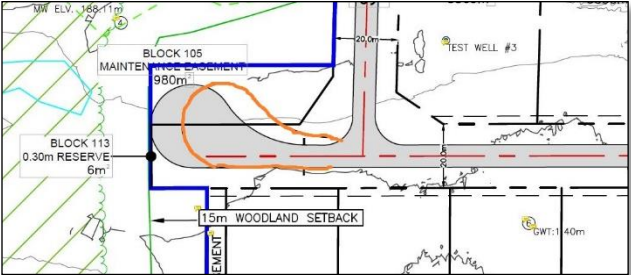
#### Sal Spitale

Principal, Senior Ecologist, North-South Environmental Inc

## General Comment

The scope of an EIS is determined by scale of a proposed development and the need to understand the sensitivity of the features and functions that may be impacted by a change in land use. A large-scale development and change in adjacent land use is proposed adjacent to the feature. Therefore, a sufficient level of survey effort is required as part of an EIS to fully understand sensitivity of features and functions that inform the proposed development, including adequate mitigation measures such as buffers. The revision of the plan to exclude development from the woodland, acknowledgement of significant features and functions (both confirmed and candidate), and the provision of an ecologically appropriate buffer to the natural heritage features and areas are acknowledged by the peer reviewer and have led to some comments being considered “addressed”. In particular, previous comments requesting additional surveys and assessment are considered addressed in light of the revisions to the Draft Plan of Subdivision and revisions to the EIS.

**Comments to be Addressed**

Comment #	Category	NSE Response/Comment - November 2022	Cambium Response - December 2022	NSE Response January 2023
1b	General Comment	<p>Section 5.1.1 and 5.1.2 provide an assessment and recommended mitigation measures for the protection of the form and function of the woodland. A 10 m setback is proposed from the significant woodland to buffer the woodland from the proposed development. The assessment of an ecologically appropriate buffer to the significant woodland has not factored in the ecological functions associated with the woodland including SWH that supports Eastern Wood-pewee as well as the wetlands / vernal pools and woodland habitat that supports a complex of productive amphibian breeding habitat. While the later function has not been confirmed as SWH at this time, additional amphibian surveys may confirm SWH for amphibian breeding (woodland) is present.</p>	<p>Based on discussions with NSE during the follow up meeting held November 28, 2022, a variable width setback was determined to be an appropriate mitigation for the development proposal to increase the ecological buffering capacity of the setback in proximity to the more sensitive features within the woodland (i.e. vernal pools). The new setback includes an increase in setback width to 15 m along the rear yard of Lot 20 and the side yard of Lot 9. Due to the size of Lot 21 the increased setback could not be accommodated due to on-site servicing needs.</p> <p>Cambium understands that further surveys are no longer required with the removal of all development from the woodland and the understanding that further surveys would be required in advance of any future alterations to the woodland (if proposed). The mitigation measures (permanent fence, ecological buffers, no public access) recommended are considered sufficient to protect the existing form and function of the woodland.</p>	<p>Comment not addressed.</p> <p>a) It was relayed by NSE during the meeting held on November 15<sup>th</sup> that a 15 m variable buffer width would be acceptable. A variable buffer width of 15 m implies that the average is 15 m, not that the upper limit is 15m. Please adjust the limit of the buffer to illustrate a wider buffer in locations (e.g., adjacent to Lot #9 and at the end of the turn around on Street A).</p> <p>b) The proposed location of the "Street A" cul-de-sac extends north of Lot #9 closer to the Significant Woodland than the boundary of Lot #9, and closer to the woodland than the previous terminus illustrated on the Site Plan from the 2<sup>nd</sup> submission. It is my recommendation the cul-de-sac be shifted at least 10 m to the south to ensure the buffer width is at least 20 m in this location where there are more sensitive functions (including Significant Wildlife Habitat) and features (wetlands and vernal pools) associated with this part of the Significant Woodland (see markup of site plan attached).</p>  <p>This adjustment will also achieve the variable (i.e., average) buffer width of 15 m by providing a buffer of at least 20 m in this location, where some areas are as low as 10 m in width and other areas are at least 20 m in width.</p> <p>Through consultation with the Works and Engineering Department of the Municipality of Port Hope, it was relayed they would supportive of the cul-de-sac being shifted further south to accommodate a wider buffer, so long as the dimensions of the cul-de-sac are maintained to provide a 15 m radius, and Northumberland County and Fire &amp; Emergency Services are agreeable. Please confirm with the County and Fire and Emergency Services that a change to the Site Plan / Draft Plan to shift the cul-de-sac south would be acceptable and make the revisions to the drawings as requested.</p> <p>c) Both the Site Plan and Draft Plan depict a 10 m and 15 m "setback" along segments of the woodland. Please replace the term "setback" with "buffer" to clearly indicate the intended function of this area (i.e., not simply to offset development from the feature, but to provide an ecologically appropriate</p>

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				buffer that adequately mitigates impacts to the features and their ecological functions).
2b	General Comment	Section 5.2.1 identifies mitigation measures for the wetlands. Recommendation #4 suggests the "Porter Crescent road connection should be graded to the south to direct stormwater away from the wetland". If the slope of the road cannot be designed to ensure runoff of salt-laden water does not enter the wetland it is recommended that a curb and gutter be installed with a catch basin that conveys water through a storm pipe to the SWM pond rather than potentially runoff to the wetland.	Installation of a curb/gutter is not feasible for this location due to maintenance/plowing. The road will be appropriately graded to the south and drainage from the road will be linked with the existing drainage at Porter Road. The setback will be robustly planted with vegetation, as will be presented in the Planting Plan to be prepared at Detailed Design.	Comment not addressed.  Through communication with the Municipality of Port Hope's Works and Engineering Department, they have confirmed that the municipality maintains/plows many kilometers of roads with curb and gutter and they do not agree with the response provided by Cambium the maintenance/plowing is not feasible.  Please include the details on future drawings a curb with gutter that captures road runoff and conveys storm water from Street C and the terminus of Street A to a SWM pond (e.g., Block 104).
3b	General Comment	Setbacks are identified in the EIS. There is no discussion of ecological buffers, which are a standard form of mitigation to impacts resulting from development. Setbacks, which are a physical separation of development from a feature and area, are not the same as buffers which are naturally vegetated areas between natural features and development and are designed to mitigate impacts to the feature and associated ecological functions. Minimum setbacks identified by conservation authorities are intended to ensure risks associated with hazards are avoided and impacts to hydrological functions are minimized; setbacks do not necessarily factor in the ecological sensitivity of features, nor are they required to consist of naturally self-sustaining vegetation. Given that the PPS requires the test of no negative impact to be met as it relates to natural heritage features and areas and associated ecological functions, the EIS should identify ecological buffers between natural features and areas and the proposed development that are sufficient in width to protect the feature and associated ecological functions.  A thorough assessment of ecological buffers to natural heritage features and ecological functions should be undertaken to ensure impacts are adequately mitigated and a negative impact is avoided.	The EIS has been updated to integrate the language and intent surrounding 'ecological buffers' as discussed in the November 28 meeting. Recommendations were made in the report for the setbacks to be planted to increase the ecological function of these areas. The language surrounding these recommended measures has been clarified within the report to use the terminology requested by the reviewer	Comment not addressed.  While it is acknowledged and appreciated that the term buffer has been introduced in some sections of the EIS, the EIS continues to refer to a "setback" to wetlands and woodlands. When referring to a natural feature to which a separation is proposed, which is intended to mitigate impacts to natural heritage features and ecological functions, and which is to be planted with vegetation to compliment the natural feature and mitigate impacts from the proposed development, the term "buffer" should be used. Please revise the EIS and replace the term "setback" with "buffer" as directed in this comment.

**Comment Addressed with additional direction for future studies**

<b>Comment #</b>	<b>NSE Comment - June 27, 2022</b>	<b>Cambium Response - September 2022</b>	<b>NSE Response/Comment - November 2022</b>	<b>Cambium Response - December 2022</b>	<b>NSE Response January 2023</b>
5	Section 4.2 provides a table of each vegetation community. A detailed description of each vegetation community will permit the reviewer to assess the natural features and functions more thoroughly as part of the review of the EIS. Please provide a description of each vegetation community, noting the dominant and subdominant species within each vegetation layer, and percent cover and height within each stratum.	Cambium respectfully disagrees with this request. While this may be the preference of the reviewer, it is not a requirement of standard practice. Vegetation information is provided in Section 4.2 and Appendix E of the EIS. Cambium has provided a professional presentation of the information collected on the Site. The revised development concept includes physical development within the open, agricultural areas of the Site. Vegetation within the development footprint is composed primarily of non-native/cultural species associated with the historical agricultural land use. Providing additional detail as requested by the reviewer is not considered to be relevant to confirming Cambium's evaluation of potential impact to these cultural communities. Setbacks to natural features will be respected in accordance with setback widths determined in consultation with GRCA. For any future development applications that may be submitted, Cambium will provide the requested level of detail for any natural communities overlapped by any future development phases.	<p>Comment not addressed.</p> <p>Like comment #4 above, an EIS should provide sufficient survey effort, including a description and characterization of the features adjacent to an area where development is proposed.</p> <p>The fulsome characterization of a feature and its ecological function is a standard requirement of an EIS where a large-scale change in land use is proposed.</p>	Field data sheets have been updated with a brief summary of composition information to satisfy reviewers request.	<p>Comment addressed - additional direction for future studies.</p> <p>The Terms of Reference submitted by Cambium to GRCA on June 8<sup>th</sup>, 2021 notes that the EIS will "include detailed descriptions of the natural features and functions identified on the Site and adjacent lands."</p> <p>While the data sheets provide a "brief summary", the notes do not provide an adequate characterization or "detailed description" of the vegetation communities. In addition, the description of each vegetation community should be contained within the results section of the vegetation surveys.</p> <p>To assist in the preparation future EISs within which an adequate description should be provided, here is an example of the level of information the description of a vegetation community should contain:</p> <p>Sugar Maple - Beech (FOD5-2) forest type - The vegetation community is characterized by a closed (&gt;90% canopy cover) tree canopy primarily dominated by Sugar Maple (<i>Acer saccharum</i>) with a lesser abundance of American Beech (<i>Fagus grandifolia</i>), White Birch (<i>Betula papyrifera</i>), White Pine (<i>Pinus strobus</i>), Eastern Hemlock (<i>Tsuga canadensis</i>), and White Ash (<i>Fraxinus americana</i>). The sub-canopy and understory have approximately 50% coverage and are partly comprised of Sugar Maple, Hop-Hornbeam (<i>Ostrya virginiana</i>), White Ash and Alternate-leaved Dogwood (<i>Cornus alternifolia</i>). The ground layer is dominated by Zig-zag Goldenrod (<i>Solidago felixcaulis</i>) with a lesser abundance of Sharp-lobed Hepatica (<i>Hepatica acutiloba</i>), Wild Ginger (<i>Asarum canadense</i>), Blue-bead Lily (<i>Clintonia borealis</i>), Wild Leek (<i>Allium tricoccum</i>) and several species of sedges (<i>Carex</i> spp.).</p>

**Appendix 1: Comments considered addressed.**

Comment #	NSE Comment - June 27, 2022	Cambium Response - September 2022	NSE Response/Comment - November 2022	Cambium Response - December 2022	NSE Response January 2023
1	Section 3.2.2 describes the approach to delineate wetland boundaries. Please confirm with the GRCA that wetland boundaries were formally delineated and staked with GRCA staff present. Please indicate on Figure 2 within the legend the date when wetland boundaries were delineated.	Wetlands were delineated, staked, and surveyed with GRCA staff on August 31, 2021. Figure 2 has been updated to reflect this date.	Confirmation from GRCA required to address comment.	GRCA confirmed that it is not a regulated feature. This comment is considered to be satisfactorily addressed.	Comment addressed as per communication with GRCA during meeting on November 15, 2022.
2	The breeding bird survey locations shown on Figure 2 are at the furthest distance recommended for completing surveys within forested habitats (i.e., 250 m). In addition, point count stations BBS2 and BBS3 are located on the edge of forest units rather than within the forested habitats. Moreover, given the proposed development includes the removal of an area of woodland, a point count station should have been located within this portion of the woodland to ensure habitat for breeding birds within that part of the woodland was thoroughly assessed. The need for a more complete survey of breeding birds became apparent during the site visit on May 31st, 2022, where bird species calling from the eastern portion of the southern woodland such as Eastern Wood-pewee, or Winter Wren heard from the central portion of the northern woodland, could not be heard from the area of BBS2 or BBS3.	Cambium acknowledges that the positioning of the BBS stations was the maximum allowable distance under the relevant protocols; however, Cambium respectfully disagrees with the recommendation for further breeding bird surveys at this time. Woodland removals are not proposed under Phase 1 of the revised development concept; therefore, additional breeding bird surveys to address comments related to woodland and interior breeding bird habitat are not currently relevant. Cambium agrees that a revised survey of breeding birds should be completed in advance of any future application for a subsequent Phase of the development.	<p>Comment not addressed.</p> <p>While development proposed within a feature warrants more rigorous surveys and greater certainty regarding wildlife use and potential impacts to significant features, sufficient survey effort, coverage and certainty remains necessary when large-scale development is proposed adjacent to features.</p> <p>Adequate baseline information will be necessary to measure cumulative impacts resulting from the construction of Phase 1 and potential impacts resulting from Phase 2. Given the limited ability to detect some bird species from within the woodland at a distance of 250 m, more thorough bird surveys should be completed within the woodland prior to any construction related to</p>	Cambium understands that further surveys are no longer required with the removal of all development from the woodland and the understanding that further surveys would be required in advance of any future alterations to the woodland (if proposed). The mitigation measures (permanent fence, ecological buffers, no public access) recommended are considered sufficient to protect the existing form and function of the woodland. This comment is considered effectively addressed.	Comment addressed. See General Comment provided on p. 3 of this memo.



Comment #	NSE Comment - June 27, 2022	Cambium Response - September 2022	NSE Response/Comment - November 2022	Cambium Response - December 2022	NSE Response January 2023
			development of the subject property.		
3	Section 3.2.4 notes that “confirmatory field investigations are planned for breeding season in 2022 to determine the number of active nests, to guide compensation requirements under the ESA and its Regulations”. Please note that the direction provided by the Province is that “you must replace any nests that you remove, damage or destroy with a nest cup” (source: <a href="https://www.ontario.ca/page/alter-structure-habitat-barn-swallow">https://www.ontario.ca/page/alter-structure-habitat-barn-swallow</a> ). Therefore, the field investigations should document the total number of nests within the barn, regardless of activity/use, to inform compensatory requirements. This should be updated in Section 3.2.4 and Section 7.2 of the EIS.	In past years, Cambium has received guidance from the Province to replace active nests only. Following receipt of this comment from NSE, Cambium contacted MECP to confirm NSE's interpretation. MECP confirmed that all nests must be compensated for, as indicated by NSE. Fifteen nests were documented in the barn in June, 2022, by Cambium. As such, the EIS has been updated to reflect this and the compensation strategy will be updated accordingly.	Comment addressed.	n/a	n/a
4	Please note that there are records of Spotted Salamanders within the Ontario Reptile and Amphibian Atlas square that overlap the subject property (square ID 17QJ08). Due to these records and the subject property containing vernal pools and woodland habitat that could support Spotted Salamander (an indicator species for Significant Wildlife Habitat for Woodland Amphibian Breeding Habitat - see comment #11 below), salamander surveys should have been undertaken. It is recommended that salamander surveys be undertaken as part of thoroughly characterizing and assessing the natural features and areas and their ecological functions.	Cambium respectfully disagrees with this recommendation. The development concept has been revised and no direct alterations to the woodland are proposed under Phase 1 of the development plan. Further, Cambium ecologists conducted amphibian surveys in 2021 and further surveys to confirm presence/absence of wood duck SWH habitat in 2022. The SWH surveys were completed in the area of the woodland occupied by the vernal pools/potential salamander habitat. Observations were made on a bi-weekly basis from mid-April through mid-July. No salamander egg masses were observed in the pools during any of the surveys. Searches for individuals were not completed; however, no salamanders were observed during our routine surveys, which include flipping logs and exfoliating bark of deadfall.  Cambium supports the recommendation that targeted surveys for salamanders be completed in advance of any future development applications that may require alterations to the woodland.	Comment not addressed.  As noted in the response to comment #2 above, a sufficient effort of surveys are required as part of an EIS to fully understand sensitivity of features and functions that inform the proposed development, including adequate mitigation measures such as buffers. The revision of the plan to exclude development from the woodland does not preclude the need to fully understand the sensitivity of the features and functions. Development remains proposed adjacent to the feature, and the determination of the mitigation measures,	Cambium understands that further surveys are no longer required with the removal of all development from the woodland and the understanding that further surveys would be required in advance of any future alterations to the woodland (if proposed). The mitigation measures (permanent fence, ecological buffers, no public access) recommended are considered sufficient to protect the existing form and function of the woodland. This comment is considered	Comment addressed. See General Comment provided on p. 3 of this memo.

Comment #	NSE Comment - June 27, 2022	Cambium Response - September 2022	NSE Response/Comment - November 2022	Cambium Response - December 2022	NSE Response January 2023
			<p>particularly buffers, should consider the potential impacts to sensitive species and habitat, such as vernal pools.</p> <p>As such, it is recommended salamander surveys, specifically using minnow traps, be completed to confirm the presence or absence of salamanders from the vernal pools in the woodland.</p>	effectively addressed.	
6	<p>During the site walk completed on May 31st, 2022, with representatives from the proponent, the GRCA and the Municipality of Port Hope, a wetland was observed adjacent to the southern watercourse. This wetland is currently classified as a Mineral Cultural Meadow and should be reclassified as a meadow marsh. This wetland also has a hydrologic connection via a tile drain/pipe to the southern watercourse. The implications of this wetland having a connection with a surface watercourse via a tile drain/pipe should be discussed with the GRCA to determine if this wetland should be treated as a regulated feature in accordance with Conservation Authority regulations.</p>	<p>The vegetation communities identified on Figure 2 of the EIS are accurate. Cambium acknowledges that a small area (&lt;0.5 ha) of land occupied by wetland plant indicators was observed within Community 3 (CUM1-1) on May 31, 2022. This area is considered an inclusion within Community 3 due to the small size of the area exhibiting &gt;50% wetland plant indicators. A broken drain was observed that appeared to have a potential connection/outlet to the southeast (i.e., toward the southeast watercourse and associated wetland); however, the current function of this historical connection has not been established. Cambium delineated, staked and surveyed the wetland boundaries with GRCA in the field on August 31, 2021. This area was actively excluded from the delineation, as evidenced by the agreed upon boundary illustrated to the south of this feature.</p>	<p>Comment not addressed.</p> <p>A vegetation community comprised of &gt;50% wetland plan indicators is a wetland and this should be acknowledged in the EIS.</p> <p>The hydrologic connection to the creek should be acknowledged and discussed with the GRCA to determine if the wetland should be treated as a regulated feature in accordance with the Conservation Authority regulations.</p> <p>Should the wetland be identified as a regulated feature, Lot 1 should be revised/removed and an</p>	GRCA confirmed that it is not a regulated feature. This comment is considered to be satisfactorily addressed.	Comment addressed as per communication with GRCA during meeting on November 15, 2022.

Comment #	NSE Comment - June 27, 2022	Cambium Response - September 2022	NSE Response/Comment - November 2022	Cambium Response - December 2022	NSE Response January 2023
			appropriate buffer be provided to the wetland		
7	<p>The assessment of Significant Woodlands should consider proximity to other woodlands or other habitats as per the direction from the Natural Heritage Reference Manual (NHRM, p. 69) where:</p> <ul style="list-style-type: none"> <li>• Woodlands that overlap, abut or are close to other significant natural heritage features or areas could be considered more valuable or significant than those that are not.</li> </ul> <p>Patches close to each other are of greater mutual benefit and value to wildlife. In addition to other criteria such as size, woodlands should be considered significant where “a portion of the woodland is located within a specified distance (e.g., 30 m) [note that 30 m is an “example” not a set distance] of a significant natural feature or fish habitat likely receiving ecological benefit from the woodland and the entire woodland meets the minimum area threshold (e.g., 0.5-20 ha, depending on circumstance)” (p. 69).</p>	<p>The first submission of the EIS, reviewed by NSE, does include proximity to other woodlands/habitats as meeting the criteria for significance, as outlined in EIS Table 4.</p> <p>Due to the revisions to the development concept, which no longer includes development within the woodland boundary or woodland setback, further discussion of significant woodlands is not considered warranted at this time. The EIS has been revised based on the Phase 1 development concept.</p>	<p>Comment not addressed.</p> <p>See response to comment #4 above regarding the need to characterize and assess natural features and functions adjacent to areas of proposed development, particularly where this is a large-scale change in land use.</p>	<p>Cambium understands that further surveys are no longer required with the removal of all development from the woodland and the understanding that further surveys would be required in advance of any future alterations to the woodland (if proposed). The mitigation measures (permanent fence, ecological buffers, no public access) recommended are considered sufficient to protect the existing form and function of the woodland. This comment is considered effectively addressed. The discussion of woodland significance provided in the past submission is considered sufficient at this time, in consideration of the lack of change to this feature under the current proposal.</p>	<p>Comment addressed. See General Comment provided on p. 3 of this memo.</p>

Comment #	NSE Comment - June 27, 2022	Cambium Response - September 2022	NSE Response/Comment - November 2022	Cambium Response - December 2022	NSE Response January 2023
8	<p>The consideration of proximity is an important factor on the subject property as it relates to habitat for interior bird species. While the woodlands do not qualify as SWH for Area-Sensitive Bird Breeding Habitat due to the break in the woodland resulting from the hydro corridor (approximately 40 m), the woodlands above and below the hydro corridor clearly function together to provide habitat for interior bird species as is evident by the number and diversity of forest interior bird species (five species, including Veery, Black-throated Green Warbler, Black-throated Blue Warbler, Ovenbird and Winter Wren) and area sensitive bird species (five species, including Hairy Woodpecker, Pileated Woodpecker, White-breasted Nuthatch, Black-and-white Warbler, American Redstart) recorded in these woodlands. The distance from the northern edge of the north woodland unit to the southern edge of the southern woodland unit is on average over 400 m, whereas the width is over 475 m. This means that when considered together, the two woodland units have the potential to provide interior forest habitat (where interior forest habitat is at least 200 m from forest edge). The Hydro corridor does not appear to result in a functional break in forest habitat that precludes the use of the woodland north and south of the hydro corridor from functioning as habitat for interior forest bird species or area sensitive bird species.</p> <p>The functions associated with proximity to other woodlands or other habitats should be evaluated in the update to the EIS. In addition, these functions should be considered in the Impact Assessment section when discussing impacts to the Significant Woodland.</p>	<p>The revised development concept (Phase 1) does not require alterations to the woodland or woodland setback. As such, further discussion of interior habitat and the potential for this habitat to support area sensitive birds is not warranted at this time. An update to the breeding bird survey would be completed in advance of any future development applications for the Site, and a thorough evaluation of interior/area sensitive habitat would be completed to accompany that application.</p>	<p>Comment not addressed.</p> <p>See response to comment #4 above regarding the need to characterize and assess natural features and functions adjacent to areas of proposed development, particularly where this is a large-scale change in land use proposed.</p>	<p>A statement of no expected impact to interior habitat has been made in the EIS. This is supported by the lack of change to the woodland, and restricted access to the wooded area by means of a permanent fence.</p>	<p>Comment no longer required to be addressed.</p> <p>While this comment will no longer be carried forward, it should be acknowledged that a change in land use at this scale will result in impacts, including increased and regular noise, increase light, and other impacts associated with regular occupation of adjacent lands to a natural heritage feature and area. That said, the test is not to avoid impacts, but to avoid “negative impacts” which can be met with appropriate mitigation including buffers.</p>
9	<p>The watercourse that traverses through the north and south woodland on the subject property is contained within a topographic valley feature that has not been assessed. While the topography of the valley is not apparent as it crosses under Mill Street where the Garden Hill reservoir has flooded the landscape, it appears that the valley feature reappears south of Ganaraska Road where the watercourse continues through the forested area to the south. Please assess the potential that the valley associated with the watercourse is a Significant Valleyland.</p>	<p>As stated in the Natural Heritage Reference Manual (NHRM) the identification and evaluation of significant valleylands is the responsibility of planning authorities. Neither the County or Township have identified significant valleylands within the jurisdiction. The Northumberland County Official Plan Section D1.8b) confirms that significant valleylands are to be designated by the County and local municipalities as a component of their natural heritage system. The Draft</p>	<p>Comment addressed.</p>	<p>n/a/</p>	<p>n/a</p>

Comment #	NSE Comment - June 27, 2022	Cambium Response - September 2022	NSE Response/Comment - November 2022	Cambium Response - December 2022	NSE Response January 2023
		<p>NHS shows Natural Heritage Area overlapping the woodland on the Site. The graphical representation of the NHA does not differentiate between the feature types being protected under that designation; however, the overlay appears to be associated with the significant woodland which is a focal point of the draft NHS. As such, the overlay is not interpreted to be related to the small-scale valley feature present on the Site, and as such this feature is not considered to be designated as a significant valleyland under the Draft NHS.</p> <p>Further, no development is proposed in proximity to the valley/watercourse through the protection of this feature through standard hydrologic feature setbacks. As such, an evaluation of significant valleylands is not applicable.</p>			
10	<p>During the site walk on May 31st, 2022, five (5) Midland Painted Turtles were observed in the pond located in southwest area of the subject property, adjacent to amphibian breeding station #5. SWH for Turtle Wintering Areas is confirmed when there are five or more over-wintering Midland Painted Turtles or one or more Northern Map Turtle or Snapping Turtle. Surveys for overwintering habitat are to be conducted in the fall (September -October) or the spring (March - May). Given the observation of five Midland Painted Turtles in May, this pond would qualify as SWH Turtle Overwintering Areas. This should be acknowledged and discussed where appropriate in the update to the EIS.</p>	<p>Cambium concurs that the observation of 5 Midland Painted Turtles in the pond qualifies this feature as SWH; however, the site visit occurred on May 31, which is at the extreme end of the assessment period for overwintering SWH. Due to the proximity of the pond to the Mill Pond on the opposite side of Mill Street, it is plausible that the observed turtles overwintered in this larger pond feature and subsequently migrated to the warmer waters of the agricultural pond sometime after emergence. In order to determine with certainty whether overwintering habitat exists in the pond, surveys would be required in the spring starting at ice out. As no alterations to the pond are currently proposed, additional surveys are not warranted at this time.</p> <p>Moreover, Cambium has consulted with MNRF with respect to the designation of SWH, and has received the following response: "Since SWH is intended to be reflective of the best available habitats, the determination of whether a habitat should be deemed significant also depends on the broader context of</p>	<p>Comment partially addressed</p> <p>It is acknowledged that the turtles observed in the pond may have moved from the Mill Pond, but the only way to determine this is to complete basking turtle surveys at the appropriate time of year within both the Mill Pond and the pond on the subject property, which were not completed as part of the EIS.</p> <p>Surveys should also be required to be completed within the Mill Pond to determine the relative significance of the pond on the subject property</p>	<p>Basking surveys are proposed to be conducted in the spring of 2023 to confirm the function of this habitat for turtle wintering. At this time, the lands associated with the agricultural pond have been removed from the development application. A permanent fence is proposed to be installed along the development limit which will allow turtles continued free passage to the Mill Pond (expected to be the primary resident habitat in the local area) but to</p>	<p>Comment addressed. See General Comment provided on p. 3 of this memo.</p>

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		<p>available habitat within that landscape." This correspondence has been provided in Appendix A of the updated EIS. Based on this, Cambium would argue that the agricultural pond does not constitute the "best available" habitat within the landscape, where similar habitat is provided within other agricultural ponds, and better habitat is certainly provided in the Mill Pond. Based on this evaluation and discussion with MNRF, Cambium does not recommend that the agricultural pond be confirmed as turtle overwintering SWH, despite the observations made in May 2022.</p> <p>Further, Cambium questions whether the Municipality is prepared to set a precedent of designating all agricultural ponds that have 5 Midland Painted Turtles (not at risk) designated as SWH when there are other, higher quality features available in the immediate vicinity.</p>	<p>compared with the Mill pond.</p> <p>There also may be more than five turtles overwintering in the pond on the subject property as well as Snapping Turtle.</p> <p>Regarding the MNRF's comment, SWH criteria have been developed to identify the "best available habitats", otherwise all habitat would be considered significant. It should also be acknowledged that multiple habitats within close proximity to each other are important regarding their role in providing redundancy in habitats and functions that are necessary to increase the long-term resiliency of wildlife populations, especially with compounding impacts from changes in land use and climate change.</p> <p>In response to the comment regarding setting a precedent, identifying the pond on the subject property as SWH for turtle overwintering habitat is not setting the precedent that "all agricultural ponds" that</p>	<p>mitigate potential mortality associated with the on-site roads and domestic animals.</p>	

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			<p>meet criteria would be considered significant. The determination of SWH for turtle overwintering ponds should be evaluated in the context of the development being proposed, and yes, with consideration of surrounding habitat. At this time, the EIS has not provided sufficient information to assess the relative contribution of the pond on the subject property to overwintering habitat for turtles. This should still be undertaken consistent with the response provided by NSE to comment #4.</p>		
11	<p>This type of SWH was not discussed in Section 4.7 as there were no Special Concern or Provincially Rare (S1-S3, SH) plant and animal species recorded during the field surveys. However, during the site visit on May 31st, 2022, an Eastern Wood-pewee was heard within the southern forest unit, on the eastern area of the woodland. Eastern Wood-pewee is listed as Special Concern in the Province, as such, the habitat for Eastern Wood-pewee, which includes the eastern portion of the southern woodland (ELC units #9 and #10) is considered SWH for Special Concern and Rare Wildlife Species. This should be acknowledged and discussed where appropriate in the update to the EIS.</p>	<p>Cambium acknowledges that Eastern Wood Pe-wee calls were documented within suitable habitat on May 31, 2022. Based on this observation, Communities 9 and 10 within the woodland on the Site qualify as SWH for Special Concern and Rare Wildlife Species.</p>	<p>Comment addressed.</p>	<p>n/a</p>	<p>n/a</p>
12	<p>The paragraph in Section 4.7 that discusses amphibian breeding habitat (woodland and wetland) suggest that the criteria for this SWH type requires two or more frog species with &gt;20 individuals or Call Code 3 (full chorus). NSE has received directly or reviewed correspondence from staff at the Ministry of Northern</p>	<p>Upon receipt of this comment from NSE, Cambium consulted directly with MNRF to confirm NSEs interpretation of amphibian breeding SWH criteria, which is inconsistent with MNRF direction we have received in Peterborough District. MNRF confirmed</p>	<p>Comment addressed.</p>	<p>n/a</p>	<p>n/a</p>

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	<p>Development, Mines, Natural Resources and Forestry (MNDMNRF) that has clarified that two species with a collective total of 20 individuals is considered SWH. This can include one frog species with a call code of 3 (assuming this represents 20 or more individuals) and a second species with any call code, or observations of adults and call codes that total more than 20 individuals between two or more species. Based on this interpretation and clarification from the MNDMNRF the following breeding ponds associated with amphibian breeding survey stations are confirmed SWH:</p> <ul style="list-style-type: none"> <li>a) MMP #2 - Amphibian Breeding Habitat (Woodlands) due to Spring Peeper (code 3), Wood Frog (1 individual), and Gray Tree Frog (4 individuals). In addition, dozens of tadpoles were observed in the pond indicating successful breeding.</li> <li>b) MMP #3 - Amphibian Breeding Habitat (Woodlands) due to Spring Peeper (code 3) and Gray Treefrog (2 individuals). In addition, dozens of tadpoles were observed in the pond indicating successful breeding.</li> <li>c) MMP #5 - Amphibian Breeding Habitat (Woodlands) due to Spring Peeper (code 3), Wood Frog (4 individuals), Gray Treefrog (2 individuals)</li> <li>d) MMP #7 - Amphibian Breeding Habitat (Woodlands) due to Spring Peeper (code 3), Wood Frog (3 individuals), Gray Treefrog (6 individuals). In addition, hundreds of tadpoles were observed in the pond indicating successful breeding.</li> </ul>	<p>Cambium's interpretation that 2 or more listed species must be documented with at least 20 individuals (each) or with Call Code 3 (2 species). MNRF staff reiterated that this interpretation was confirmed at the Regional level. Accordingly, Cambium's interpretation of Amphibian Breeding SWH as provided in the EIS remains accurate. A copy of this correspondence has been included in Appendix A of the updated EIS.</p>			
13	<p>The habitat is considered the wetland area plus a 230 m radius of woodland area. In the case of the southern woodland, it should be recognized that the vernal pools scattered throughout the woodland would also contribute to the available breeding habitat and are contained within the SWH. As such, the ecological functions of these ponds need to be assessed and considered as part of the complex of SWH for Amphibian Breeding Habitat (Woodland).</p> <p>Please note that there are also records of Spotted Salamander within the Ontario Reptile and Amphibian Atlas square that overlaps the subject property. The subject property contains</p>	<p>As discussed in the response above, the criteria for Amphibian Breeding SWH was not met on the Site, in consideration of current guidance from the Peterborough District/Regional MNRF.</p> <p>With regard to Spotted Salamanders and salamander habitat, no salamander egg masses were observed in the pools or pond during any of the Site visits conducted during appropriate seasonal conditions in 2021 or 2022. As woodland alterations are not proposed under the current development application, further investigation of</p>	<p>Comment not addressed.</p> <p>NSE had requested an interpretation from the MNRF regarding vernal pools and wetland complexes within a woodland (see attached). Based on the MNRF's response, it is appropriate to total the number of</p>	<p>Cambium understands that further surveys are no longer required with the removal of all development from the woodland and the understanding that further surveys would be required in advance of any future alterations to the woodland (if proposed). The mitigation</p>	<p>Comment addressed. See General Comment provided on p. 3 of this memo.</p>



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	<p>vernal pools and woodland habitat that could support Spotted Salamander. Surveys for salamanders were not completed. The Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E note that the presence of one (1) or more of the listed salamander species meets the criteria for Amphibian Breeding Habitat (Woodland). In addition to the vernal pools and woodland meeting criteria as SWH for Amphibian Breeding Habitat (Woodland), the potential for these vernal ponds and other ponds within the woodland to provide habitat for Spotted Salamander should also be factored into assessing the woodland as SWH for Amphibian Breeding Habitat (Woodland). With the confirmation of SWH for Amphibian Breeding Habitat (Woodland), this should be acknowledged and discussed where appropriate in the update to the EIS.</p>	<p>salamander habitat within the woodland is not considered warranted at this time. Should a future application be submitted that includes alteration to the woodland, a dedicated salamander search/surveys would be included in the scope of work.</p>	<p>individuals heard calling, seen and egg masses observed within a woodland when evaluating the habitat for amphibian breeding (woodlands). For wetlands or vernal pools within 230 m of one another within a continuous forest community it would be appropriate to consider the complex of vernal pools and the surrounding forest within 230 m of the ponds/wetlands in the determination of SWH for Amphibian Breeding.</p> <p>Should development be proposed within the woodland, amphibian surveys should including audio surveys, visual encounter surveys, observations of egg masses, and dedicated salamander using minnow traps should be undertaken.</p>	<p>measures (permanent fence, ecological buffers, no public access) recommended are considered sufficient to protect the existing form and function of the woodland. This comment is considered effectively addressed.</p>	
14	<p>During the site walk on May 31, 2022, two seepage areas were observed along the lower slope of the valley associated with the coldwater creek within the Fresh-Moist White Cedar Coniferous Forest (FOM7-1). According to the SWH Criteria Schedules for Ecoregion 6E the presence of a site with two (2) or more seeps/springs should be considered SWH, whereby the ELC forest ecosite is the SWH. As such, the FOM7-1 ELC unit is confirmed SWH for Seeps and Springs and should be acknowledged and discussed where appropriate in the update</p>	<p>Cambium did not observe the seepage areas noted by NSE on May 31, 2022, nor were they observed during our other field investigations. Seeps generally occur during periods of high groundwater elevation and may not be visible year round, therefore it is possible that these seepage areas were not observable during our other investigations. The comment indicates that the seepage areas were noted in ELC Type FOM7-1, but the description of Fresh-Moist White Cedar Coniferous</p>	<p>Comment addressed.</p>	<p>n/a</p>	<p>n/a</p>

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	to the EIS.	Forest applies to ELC Type FOC4-1 (Community 8). Based on topography, stream characteristics (coldwater creeks are generally presumed to be groundwater fed), and observations over the duration of study, it is probable that seeps occur in the vicinity of the watercourse on a periodic/intermittent basis. Based on topography and vegetation type, Cambium interprets NSE's comment to apply to Community 8 (FOC4- 1). Based on the observations made by NSE, Cambium concurs that Community 8 should be designated SWH for Seeps and Springs, as per the criteria listed in the SWH Technical Guide (6e).			
15	The woodlands on the subject property have the potential to provide habitat for Species at Risk bats as noted in Section 4.8.1 of the EIS. While the woodland may not qualify as Significant Wildlife Habitat - Bat Maternity Colonies, habitat for SAR is addressed in accordance with the Endangered Species Act, irrespective of whether the woodland is SWH for Bat Maternity Colonies. As such, the Ministry of Environment, Conservation and Parks (MECP) should be consulted by way of an Information Gathering Form (IGF). Correspondence from the MECP should be provided to demonstrate that matters related to the habitat of endangered species and threatened species have been addressed in accordance with the Endangered Species Act, as per policy 2.1.8 of the Provincial Policy Statement and section C5.2.1 g) of the Municipality of Port Hope Official Plan.	Tree removals within the woodland are not proposed under the revised development concept (Phase 1). Should future applications for development be put forward that would require alteration to the woodland, Cambium agrees that MECP should be consulted by way of an IGF to confirm that the proponent is in compliance with the ESA (2007) and associated regulations.	Comment addressed.	n/a	n/a
16	Section 4.9 provides a description of the Earth Science Area of Natural and Scientific Interest (ES- ANSI). This section refers to an assessment of the ES-ANSI completed by GHD. This assessment concluded that the ES-ANSI does not overlap the proposed development. The mapping and evaluation (or re-evaluation in this case) of the extent of an ANSI is the responsibility of the Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNR). As such, any proposed revision to mapping of the ES-ANSI needs to be reviewed and accepted by the MNDMNR prior to concluding that the ES-ANSI does not	Please refer to attached email received from NDMNRF identifying that they no longer have a Conservation Geologist and they recommend using someone qualified in geology to demonstrate to the municipality, that the planned development would not have any negative impacts.	NSE defers to the Municipality of Port Hope regarding any further requirements to demonstrate no negative impact to the ES-ANSI.	Comment addressed	Please confirm with the Municipality of Port Hope that this comment has been addressed to their satisfaction.

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	<p>require further discussion or consideration as part of the EIS. In addition, the "pitted" nature of an outwash plain is often evident in the topography where small depressions of variable size are found throughout this geologic formation. These depressions are easily visible on orthoimagery of the surrounding area, including on the subject property where ephemeral/vernal pools are present. Please consult with the MNDMNRF regarding revisions to the extent of the ES-ANSI and provide correspondence where the MNDMNRF has accepted the conclusions of the assessment completed by GHD.</p>				
17	<p>General note on the Provincial Policy Statement (PPS) and application of the test of no negative impact. The PPS is intended to provide direction on matters of provincial interest related to land use planning and development. This includes providing direction for "appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment" (p. 1). The PPS has provided direction that settlement areas is where growth and development shall be focused (s. 1.1.3), where the subject property is located within a settlement area. That said, the PPS also recognizes "Ontario's long-term prosperity, environmental health, and social well-being depend on conserving biodiversity, protecting the health of the Great Lakes, and protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits" (Section 2.0). Accordingly, the PPS provides direction for development in and adjacent to natural features and areas where:</p> <p>"Natural features and areas shall be protected for the long term. The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features."</p>	Acknowledged, and agreed.	Response has acknowledged the comment. No further action needed.	n/a	n/a

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	<p>It should first be recognized that not all natural features and areas are considered significant and protected through policy. The criteria established to identify significant features recognizes this, and where a feature meets those criteria, the features and functions should be protected adequately to meet policy 2.1.1 and 2.1.2.</p>				
18	<p>The PPS also provides flexibility regarding development in some natural features and areas through an assessment of negative impacts on the natural features or their ecological functions. This is recognized through the later part of policy 2.1.5 where there can be some impacts to significant features provided these impacts are not 'negative impacts', where negative impacts are defined as "degradation that threatens the health and integrity of the natural features or ecological functions for which an area is identified due to single, multiple or successive development or site alteration activities." Degradation can be associated with the removal of a portion of a natural feature, and where this removal threatens the "health" and "integrity" of natural features or ecological functions, would be considered a negative impact. The natural features and areas identified on the subject property include:</p> <ul style="list-style-type: none"> <li>• Significant Woodlands</li> <li>• Fish Habitat</li> <li>• Significant Valleyland (candidate)</li> <li>• Significant Areas of Natural and Scientific Interest</li> <li>• Significant Wildlife Habitat: <ul style="list-style-type: none"> <li>○ Turtle Wintering Areas</li> <li>○ Special Concern and Rare Wildlife Species</li> <li>○ Amphibian Breeding Habitat (Woodlands)</li> <li>○ Seeps and Springs</li> </ul> </li> </ul>	<p>Cambium is familiar with the PPS and the application of its policies. The reviewer asserts that there are 5 significant natural heritage feature types present on the property. Cambium has completed numerous investigations on the property in the past 18 months, and respectfully disagrees with several assertions of the reviewer. Based on our work and the applicable technical guidance and policies, the following significant natural heritage features are present on the property:</p> <ul style="list-style-type: none"> <li>• Significant Woodlands</li> <li>• Watercourses</li> <li>• Fish Habitat</li> <li>• ES-ANSI (Defer to GHD)</li> <li>• Significant Wildlife Habitat <ul style="list-style-type: none"> <li>○ Special Concern and Rare Wildlife Species</li> <li>○ Seeps and Springs</li> </ul> </li> </ul> <p>With respect to Significant Valleyland (candidate) - candidate significant features are not afforded the same protections as confirmed significant features. As discussed previously, as per the NHRM the identification and designation of Significant Valleylands</p>	<p>Comment partially addressed.</p> <p>See NSE response to comment #4 regarding a fulsome assessment and comment #9 regarding an evaluation of significant valleylands.</p> <p>See NSE response to comment #10 and #13 above regarding SWH for turtle overwintering habitat and amphibian breeding habitat (woodlands).</p> <p>See NSE response to comment #16 related to the ES-ANSI.</p>	<p>Cambium understands that further surveys are no longer required with the removal of all development from the woodland and the understanding that further surveys would be required in advance of any future alterations to the woodland (if proposed). The mitigation measures (permanent fence, ecological buffers, no public access) recommended are considered sufficient to protect the existing form and function of the woodland. Turtle basking surveys are proposed for the spring of 2023 to support an evaluation of Turtle Wintering SWH. The EIS acknowledges that the valley on the property is not a significant valleyland. Evaluation of the ES-</p>	<p>Comment addressed. See General Comment provided on p. 3 of this memo.</p>

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	<p>The ecological functions associated with natural features and areas must be thoroughly assessed in order to evaluate impacts and determine if these impacts constitute a negative impact. The following comments pertain to the assessment of impacts and determination of negative impacts.</p>	<p>rests with the Municipality. At this time, the approved Municipal and County OP policies do not identify nor contain provisions for Significant Valleylands. The Draft NHS does not appear to designate Significant Valleylands overlapping the property. As such, the small-scale valley feature on the property is not protected under the PPS.</p> <p>With respect to the ES-ANSI, Cambium defers comment on this item to GHD.</p> <p>With respect to SWH - as discussed previously, the woodland did not meet the criteria for designation as SWH - Amphibian Breeding Habitat (Woodlands or Wetland). Further, while the pond appears to meet the minimum criteria for designation as SWH - Turtle Wintering Areas, Cambium asserts that further study would be required to confirm whether this designation should apply (i.e., turtle emergence surveys starting at ice out). Additional study is not considered warranted at this time, in consideration of the pond remaining in the current state under the revised development concept (Phase 1). Further, the Municipality may wish to consider whether designating agricultural ponds with not at risk turtle observations as SWH is in the best interest of the Municipality.</p>		<p>ANSI is deferred to GHD.</p>	
19	<p>The discussion on impacts to the woodland in Section 5.1 suggests that providing a 10 m setback “will result in a net ecological gain to the woodland over existing conditions”. This statement related to achieving a “net ecological gain” has not considered the impact associated with the proposed removal of 1.5 ha of woodland and increased occupancy. An assessment of net ecological impacts, whether net gain or net loss, requires consideration of all impacts together. It is recommended the EIS provide a comprehensive net impact assessment including a review of cumulative impacts as per section C20.3 i) of the</p>	<p>The revised development concept (Phase 1) does not require alterations to the woodland or woodland setback. As such, further discussion of ecological gain/loss with respect to the woodland is not required at this time.</p>	<p>Comment not addressed.</p> <p>While it is acknowledged that a vegetated buffer (referred to as a “setback” in the EIS) can provide habitat for wildlife and improve edge conditions, the net outcome of a buffer when considering the impacts and intended function of a buffer</p>	<p>Comment addressed</p>	<p>n/a</p>

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	Municipality of Port Hope OP and section C4.1 of the Northumberland County Official Plan (2021).		<p>to mitigate impacts from the proposed development is not an overall "ecological gain".</p> <p>A change in the EIS is not required, however, the comment above is provided to note the disagreement with the statement made in the EIS.</p>		
20	<p>Section 5.1 of the EIS suggests that variable zoning, such as an environmental protection provision, be applied to the lots that overlap the woodland and associated buffer. Based on professional experience monitoring natural areas adjacent to or within private lots, leaving natural features and buffers under private ownership, even with some type of zoning, has little to no effect on preventing impacts to natural features and their ecological functions. Impacts to natural features where under private ownership often include vegetation clearing (often understory), removal of trees (including hazard trees), construction of small structures, use of insecticide on vernal pools/ponds to eliminate mosquito larvae, predation of wildlife by domestic pets, spread of invasive species, dumping of yard waste and other debris, creation of ad-hoc trails, fire pits, etc. The Natural Heritage Reference Manual notes that "buffers should not be located on lots privately owned by individuals. Rather, buffers should be included into the same ownership as the feature that is to be protect. When buffers are incorporated into individual lots, consistent management of buffers is not possible. In such cases, different landowners will treat the buffer in various ways, and planning authorities will have little ability to enforce any zoning or covenants intended to preserve buffer function" (p. 131).</p> <p>Section D1.10 of the 2016 Northumberland County OP, and section C.4.2 of the 2021 Northumberland County OP suggests</p>	The revised development concept (Phase 1) maintains lot lines outside of all natural heritage features and associated setbacks, with the exception of a slight reduction in the 15 m setback on the wetland at Porter Crescent to allow for the road connection. All lands outside of the Phase 1 development footprint will remain in ownership of the proponent. No transfer of land to the public domain is considered warranted at this time.	Comment addressed.	n/a	n/a

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	that there be a transfer of lands containing natural heritage features and areas into public ownership through the development process. It is recommended that the Municipality of Port Hope require all buffers and natural features and areas to be transferred into public ownership.				
21	<p>Section 5.1.1 of the EIS proposes a permanent fence along the rear lot line of each of the lots that extends through the woodland. This fence will not protect the woodlands contained on private lots which would occupy approximately 3.25 ha of the remaining woodland after the removal of 1.5 ha of woodland. The concept plan should be revised to exclude the lots from woodlands and buffers and any fencing be at the limit of the buffer to the woodland to ensure adequate protection of features and buffers.</p> <p>In addition, the SWM block extends beyond the permanent fence. The northern SWM block should also be located</p>	The development concept (Phase 1) has been revised to exclude all lots from woodlands and the associated setback. Based on the revised development concept, Cambium recommends that a permanent fence be installed along the rear lot lines of Lots 20-24 to prevent inadvertent encroachment into the woodland and woodland setback.	<p>Comment partially addressed.</p> <p>The sediment fence appears to bisect the wetland on the southside of the woodland (see Figure 4). Please relocate the sediment fence around the perimeter of the wetland where it should coincide with the limit of the buffer.</p>	The alignment of the sediment fence was a simple error that has been corrected in the current submission of the EIS.	Comment addressed
22	I am of the opinion that the proposed removal of 1.5 ha of woodland does result in a negative impact and therefore does not conform with natural heritage policies of the PPS and municipal official plans (see comment #24, below). That said, section 5.1.1 of the EIS suggests compensation for the removal of 1.5 ha of the woodland in the form of off-site woodland habitat enhancement and creation; for completeness, please provide more details of this woodland habitat enhancement and creation, including a description and mapping of the location where this would occur.	a) Alterations to the woodland are not proposed under the revised development concept (Phase 1); therefore, no woodland compensations are proposed at this time.	Comment addressed.	n/a	n/a
23	<p>Section 5.1.2 provides an assessment of impacts to the woodland function. This assessment should include an evaluation of impacts and address the following:</p> <p>a) As noted in comment #6 above, the review of impacts should consider ecological functions associated with proximity, in particular those functions that support interior forest and area sensitive forest bird species. Please update the EIS to include a discussion on impacts to</p>	<p>a) No woodland removals are proposed under the revised development concept (Phase 1). The EIS has been updated to reflect this change, including within the impact assessment sections.</p> <p>b) An assessment of SWH and potential impacts to confirmed/relevant SWH types is provided in Section 5.5.</p>	<p>Comment not addressed.</p> <p>While Phase 1 of the development concept does not propose development within the natural heritage features, the potential for impacts to these features</p>	Cambium understands that further surveys are no longer required with the removal of all development from the woodland and the understanding that further surveys would	Comment addressed. See General Comment provided on p. 3 of this memo.

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	<p>wildlife habitat for interior forest birds and area sensitive forest birds resulting from the proximity of the forest patches. In particular, this section should discuss impacts resulting from creating a new edge and the effect of the change in form and function on all ecological functions, which are defined as “natural processes... that living and non-living environments provide or perform within or between species, ecosystems and landscapes” (PPS, p. 42).</p> <p>b) Changes in impervious surface that could impact groundwater contributions to seeps fish habitat (coldwater creek), vernal pools and wetlands. While the woodland contains Significant Wildlife Habitat for Special Concern and Rare Wildlife Species, Amphibian Breeding Habitat (Woodlands) and Seeps and Springs, impacts to Significant Wildlife Habitat associated with the woodland should be discussed in Section 5.5.</p>		<p>and their ecological functions must still be adequately assessed given the large-scale proposed change in land use. See NSE response to comment #4 above.</p>	<p>be required in advance of any future alterations to the woodland (if proposed). The mitigation measures (permanent fence, ecological buffers, no public access) recommended are considered sufficient to protect the existing form and function of the woodland.</p>	
24	<p>As noted in comment #7 above, if the valleyland is deemed to be a Significant Valley, the Impact Assessment section (Section 5.0) should also assess impacts to the features and functions associated with the Significant Valleyland.</p>	<p>As previously stated, the small-scale valley feature on the property is not a Significant Valleyland.</p>	<p>Comment addressed.</p>	<p>n/a</p>	<p>n/a</p>
25	<p>Section 5.2 provides a discussion on impacts to wetlands. Recognizing that the wetlands on the subject property have not been evaluated and are not identified as Provincially Significant Wetlands the following comments are provided for consideration by the GRCA, which regulates wetlands:</p> <p>a) The wetland in the northeast corner of the agricultural field, adjacent to the Significant Woodland qualifies as SWH for Amphibian Breeding Habitat (Woodlands). The EIS must demonstrate conformity with natural heritage policies of the PPS and municipal official plans in addition to GRCA policies and regulations.</p> <p>b) The EIS has stated that this wetland is “isolated”. While not connected to a surface watercourse, this wetland is physically and functionally connected to the Significant Woodland and is therefore not isolated. Moreover, this</p>	<p>a) The wetland in the northeast corner of the agricultural field does not meet the criteria for designation as SWH - Amphibian Breeding (Woodlands or Wetland) as per guidance received from MNRF specific to the local and regional area of the Site. As such, this feature is not protected under the PPS. This feature is however regulated by GRCA; a permit will be sought/obtained for any work within the area of interference to this wetland (i.e. 30 m).</p> <p>b) The term isolated was intended to relay the lack of connectivity to any other surface water feature on the Site. Cambium acknowledges that there are functional connections between the wetland and the surrounding terrestrial</p>	<p>Comment 25 a) partially addressed. See NSE response to comment #13 above regarding amphibian breeding habitat.</p> <p>Comment 25 b) addressed.</p> <p>Comment 25 c) addressed.</p> <p>Comment 25 d) addressed for the Phase 1 proposed development plan.</p>	<p>Cambium understands that further surveys are no longer required with the removal of all development from the woodland and the understanding that further surveys would be required in advance of any future alterations to the woodland (if proposed). The mitigation measures (permanent fence, ecological buffers, no public access)</p>	<p>Comment addressed. See General Comment provided on p. 3 of this memo.</p>



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	<p>wetland relies on and contributes to the ecological functions of the Significant Woodland in part by providing overwintering and foraging habitat for the amphibians that breed in the wetland. The EIS should be updated to recognize the physical connection and ecological interactions between the wetland and the woodland.</p> <p>c) It should be noted that the extension of Porter Crescent does not require the removal of the wetland. There may be a minor encroachment into the buffer to the wetland, but even this can be minimized by angling the road to the south. While essential infrastructure projects may be permitted to impact or even remove wetlands, there does not appear to be adequate justification for the removal of the wetland related to the development of a lot.</p> <p>d) While I am of the opinion that the removal of the wetland would not be permitted as it would not conform with natural heritage policies of the PPS and municipal official plans, it should be noted that a 5 m buffer to a created wetland would not be considered sufficient to mitigate impacts to the water quality and ecological functions of the wetland.</p>	<p>features. The EIS has been updated to include confirmation that wildlife certainly use these features in concert with one another and some amphibians are expected to use these habitats in combination; however, the wetland does not qualify for designation as SWH - Amphibian Breeding (Woodland).</p> <p>c) Acknowledged. The wetland will remain in the current position and encroachment into the 15 m setback will be addressed through enhancements to the reduced setback. No alterations to the wetland are proposed under the revised development concept (Phase 1).</p> <p>d) Wetland creation/compensation is no longer proposed.</p>		<p>recommended are considered sufficient SWH types that may occur within the woodland.</p>	
26	<p>Section 5.4 provides an evaluation of impacts to fish habitat. The northern watercourse has been identified as a coldwater stream. Coldwater streams rely on groundwater inputs which in part support the permanent nature of this watercourse. The subject property is largely comprised of permeable soils that allow for groundwater contribution that supports the watercourse. The proposed development will increase the amount of impervious cover thereby reducing infiltration and groundwater inputs. This impact on infiltration and groundwater contributions to the watercourse has not been discussed in the EIS. Furthermore, the impact of discharging stormwater from the northern SWM pond into the watercourse has not been discussed. Please update the EIS to discuss impacts to groundwater contributions to the watercourse as well as impacts resulting from the discharge of stormwater into the watercourse.</p>	<p>The EIS has been updated to include best practices for maintaining infiltration on the Site. Under the revised development concept, no stormwater will be discharged to the northern watercourse.</p> <p>On a technical basis, Cambium defers all other aspects of this comment to the engineers responsible for the stormwater management plan, and recommends that LID principles be applied to the proposed development.</p>	<p>Comment addressed.</p> <p>It is recommended that the municipality require a water balance be completed with appropriate LID measures and grading details provided to ensure water balance to wetlands and groundwater infiltration which supports seepages is maintained.</p>	<p>Comment addressed</p>	<p>n/a</p>

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27	<p>Section 5.5 Significant Wildlife Habitat should be updated to discuss impacts to SWH for the following SWH types:</p> <ul style="list-style-type: none"> <li>a) Turtle Wintering Areas</li> <li>b) Special Concern and Rare Wildlife Species</li> <li>c) Amphibian Breeding Habitat (Woodlands)</li> <li>d) Seeps and Springs</li> </ul>	<p>The following SWH types apply to the Site:</p> <ul style="list-style-type: none"> <li>b. Special Concern and Rare Wildlife Species</li> <li>d. Seeps and Springs</li> </ul> <p>The impact assessment section of the EIS has been updated accordingly.</p>	<p>Comment partially addressed.</p> <p>See NSE response to comment #10 and #13 above regarding SWH for turtle overwintering habitat and amphibian breeding habitat (woodlands).</p>	<p>Cambium understands that further surveys are no longer required with the removal of all development from the woodland and the understanding that further surveys would be required in advance of any future alterations to the woodland (if proposed). The mitigation measures (permanent fence, ecological buffers, no public access) recommended are considered sufficient to protect SWH types that may occur within the woodland.</p>	<p>Comment addressed. See General Comment provided on p. 3 of this memo.</p>
28	<p>Section 6.0 provides a review of policy conformity with respect to the policies of the Provincial Policy Statement. This section should also be updated as part of addressing the preceding comments (e.g., SWH, ES-ANSI, Significant Valley, etc.). In addition, this section should provide a review of policy conformity with the GRCA Policies for the Implementation of Ontario Regulation 168/06 (January 2014).</p>	<p>The EIS has been updated to include a statement of PPS conformity for the relevant natural heritage feature types, and GRCA policies.</p>	<p>Comment addressed.</p> <p>However, the EIS should address outstanding comments prior to confirming that the proposal conforms to relevant policies and regulations and approving the application.</p>	<p>Comment addressed</p>	<p>n/a</p>
29	<p>Table 6 suggests that a compensation strategy would offset the loss of 1.5 ha of woodland through enhancement of 3 ha of woodland off-site. While the Natural Heritage Reference Manual recognizes that mitigation may include replacement of woodlands, "factors such as successional status and replaceability of the woodland components and functions within a reasonable timeframe (e.g., 20 years)" must be considered (p. 119). In the case of the woodland proposed for removal, it is a</p>	<p>The revised development concept (Phase 1) does not include alteration to the Significant Woodland, and there are no compensations proposed at this time.</p>	<p>Comment addressed.</p>	<p>n/a</p>	<p>n/a</p>

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	<p>mature woodland (over 70 years in age based on 1954 historical air photos) that provides habitat for area sensitive forest birds and interior forest bird species, as well as contains vernal pools and habitat that support a diversity of frog species. It is not feasible to replicate the complex ecological functions associated with this mature woodland within a reasonable timeframe. As such, the compensation strategy is not sufficient to offset the loss of 1.5 ha of woodland on the subject property nor is it considered sufficient mitigation for impacts resulting from the removal of the woodland and associated ecological functions.</p>				
30	<p>Please note that given the wetlands proposed for removal have been confirmed as SWH (Amphibian Breeding Habitat, Woodlands), wetland compensation as proposed in Section 7.1.1 is not considered acceptable. That said, the following comments are provided for completeness:</p> <ul style="list-style-type: none"> <li>a) The wetland compensation area is proposed in an area this is currently a wetland which may be regulated by the GRCA due to a connect to a surface water feature via a tile drain/pipe. The potential for the GRCA to regulate the existing wetland adjacent to the southern watercourse should be discussed with the GRCA.</li> <li>b) The compensation wetland is only provided with a 5 m buffer. Based on a review of literature examining buffers to wetlands, 5 m is not considered sufficient to mitigate impacts to water quality and ecological functions for a wetland that will be partly surrounding by residential lots.</li> </ul>	<p>The wetlands are not SWH - Amphibian Breeding (Woodlands or Wetland). Alterations to the wetland are no longer proposed; therefore, the wetland compensation has been excluded from the development proposal. No further discussion of compensation is required at this time.</p>	<p>Comment addressed regarding the revision of the plan that no longer proposes the removal and compensation of the wetland.</p>	<p>Comment addressed</p>	<p>n/a</p>
31	<p>Should woodland enhancement be pursued, additional description of the location, existing conditions of the woodland enhancement area, and mapping of the proposed woodland enhancement area should be provided as part of the EIS.</p>	<p>Woodland alterations are no longer proposed; therefore, no woodland compensation is proposed at this time.</p>	<p>Comment addressed.</p>	<p>Comment addressed</p>	<p>n/a</p>
32	<p>The EIS is generally well organized and follows a logical approach. However, the comments provided above identify some shortcomings in the field surveys, assessment of significance, as well as the impact assessment that should be</p>	<p>The development concept (Phase 1) has been revised to exclude all lots from woodlands, SWH, wetlands and associated setbacks. As such, the items the reviewer suggested be demonstrated do not apply.</p>	<p>Comment addressed as a result of the proposed development no longer</p>	<p>Comment addressed</p>	<p>n/a</p>

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	<p>addressed in an updated EIS. The development as currently proposed includes the removal of a 1.5 ha of Significant Woodland which also supports Significant Wildlife Habitat. The EIS has not demonstrated that the development would avoid negative impacts: “degradation that threatens the health and integrity of the natural features or ecological functions for which an area is identified due to single, multiple or successive development or site alteration activities”. Based on the review of the EIS and observations from the site visit on May 31, 2022, it is recommended that the development concept plan be revised to remove all lots and development from the Significant Woodland, Significant Wildlife Habitat associated with the Significant Woodland, and outside of the buffer to the woodland and Significant Wildlife Habitat.</p> <p>While there are other constraints associated with the subject property in addition to the woodland and SWH associated with the woodland (e.g., fish habitat and wetlands associated with the southern watercourse, and their buffers), there is an opportunity to develop the remainder of the subject property, including the SWH associated with the pond, and avoid negative impacts to SWH if the following is demonstrated:</p> <ul style="list-style-type: none"> <li>• alternative habitat is created and designed to support overwintering turtles and amphibians</li> <li>• prior to removal of the existing pond that supports SWH, demonstration that the created wetland/pond has the ability to support overwintering turtles and amphibians;</li> <li>• wildlife rescue and relocation to the newly created habitat is undertaken prior to any site alteration activities commencing.</li> </ul>		<p>being proposed within features.</p>		