

## Appendix D: Woodland Evaluation Criteria

### The London Plan – Criterion 1341 1.

The woodland contains natural features and ecological functions that are important to the environmental quality and integrity of the NHS. These include site protection (hydrology and erosion/slope) and landscape integrity (richness, connectivity and distribution).

### The London Plan – Criterion 1341 2.

The woodland provides important ecological functions and has an age, size, site quality, and diversity of biological communities and associated species that is uncommon for the planning area.

### The London Plan – Criterion 1341 4.

The Woodland provides significant habitat for endangered or threatened species.

### The London Plan – Criterion 1341 5.

The Woodland contains distinctive, unusual or high-quality natural communities or landforms.

Consistent with **The London Plan** a woodland will be considered significant if it meets either of the following evaluation scores:

- If one or more criteria meet the standard for High; or
- If five or more criteria meet the standard for Medium.

London Plan Criterion					<u>SCORE</u>
Criterion 1.1. – Site Protection	A) Presence of hydrological features within or contiguous with the patch.	<b>HIGH</b> – one (1) or more hydrological features (as described above) located within or contiguous with the patch.	<b>MEDIUM</b> – within 50 m of a hydrological feature.	<b>LOW</b> – no hydrological features present within 50 m of the patch.	
	B) Erosion and Slope Protection	<b>HIGH</b> – patch present on steep slopes >25% of any soil type, OR on a remnant slope associated with other features such as moraines or remnant valley slopes no longer continuous with the river system OR	<b>MEDIUM</b> – patch present on moderate to steep slopes > 10% - 25% with less erodible soils (heavy clay and clay, silty clay)	<b>LOW</b> – Patch present on gentle slopes < 10% with any soil type.	

		on moderate to steep slopes >10% - 25% with erodible soils (silty loam, sandy loam and loam, fine to coarse sands).			
Score for <b>Criterion 1.1</b> is based on the highest standard achieved between the two measures.					
<b>Criterion 1.2 – Landscape Integrity (Richness, Connectivity and Distribution)</b>	<b>A) Landscape Richness</b>	<b>HIGH</b> – > 10% local vegetation cover	<b>MEDIUM</b> – 10% local vegetation cover	<b>LOW</b> – < 7% local vegetation cover.	
	<b>B) Landscape Connectivity (linkage and distance between patches not separated by permanent cultural barriers).</b>	<p><b>HIGH</b> – patches directly connected by:</p> <ul style="list-style-type: none"> <li>i. waterways or riparian habitat (generally primary or secondary aquatic corridors and streams with bridges and/or underpasses: for example, Thames, Dingman, Medway, Stoney, Pottersburg, Kettle, Dodd, Sharon, Oxbow, Kelly, Stanton, Mud, Crumlin);</li> <li>ii. Contiguous or semi-contiguous habitat.</li> </ul>	<p><b>MEDIUM</b> – patches indirectly connected by:</p> <ul style="list-style-type: none"> <li>i. habitat gaps &lt; 40 m;</li> <li>ii. areas identified as Anti-fragmentation, Terrestrial Corridor, Big Picture Corridor (<a href="https://caroliniancanada.ca/legacy/ConservationPrograms_BigPictureMaps.html">https://caroliniancanada.ca/legacy/ConservationPrograms_BigPictureMaps.html</a>) to enhance the viability of isolated woodlands by re-connection, buffering, expanding OR to infill disturbed areas or replace abandoned fields (Riley &amp; Mohr, 1994); <ul style="list-style-type: none"> <li>a. abandoned rails, utility rights-of-way (hydro corridors, water/gas pipeline);</li> <li>b. Open space greenways and golf courses;</li> <li>c. Active agriculture or pasture;</li> <li>d. Watercourses connected by culverts; and,</li> <li>e. First or second order streams that exhibit</li> </ul> </li> </ul>	<p><b>LOW</b> – patches not connected due to the presence of permanent cultural barriers:</p> <ul style="list-style-type: none"> <li>i. major roads and highways with no culverts;</li> <li>ii. urban or industrial development, large parking lots;</li> <li>iii. infrastructure;</li> <li>iv. dams, buried watercourses, channelized or greater than first order watercourses; and,</li> <li>v. active recreational land-uses (campground, parks with major facilities – community centres, arenas).</li> </ul>	

			channelized morphology.		
	<b>C) Patch Distribution (isolation &amp; arrangement of patches / patch clusters).</b>	<b>HIGH</b> – patch clusters with total area > 40 ha OR identified as a Big Picture Meta Core (Carolinian Canada, 2000).	<b>MEDIUM</b> – patch clusters with total area 20 – 40 ha.	<b>LOW</b> – patch clusters with total area < 20 ha.	
Score <b>Criterion 1.2</b> based on the highest standard achieved for any one of the three standards.					
<b>Criterion 2.1 – Age and Site Quality</b>	<b>A) Community Successional Stage / Seral Age</b>	<b>HIGH</b> – patch contains one (1) or more mature or older growth communities	<b>MEDIUM</b> – patch contains one (1) or more mid-aged communities	<b>LOW</b> – patch contains only pioneer to young communities	
	<b>B) Mean Coefficient of Conservatism (MCC) of communities or whole patch</b>	<b>HIGH</b> – one (1) or more vegetation community with an MCC $\geq$ 4.6; OR MCC of patch > 4.5	<b>MEDIUM</b> – one (1) or more vegetation community with an MCC 4.2 – 4.5; OR MCC of patch $\geq$ 4.0 – 4.5	<b>LOW</b> – all vegetation communities with an MCC < 4.2; OR MCC of patch < 4.0.	
Score <b>Criterion 2.1</b> based on the highest standard achieved between the two measures.					
<b>Criterion 2.2 – Size and Shape</b>	<b>A) Patch Size</b>	<b>HIGH</b> Patch > 9.0 ha in size OR patch contains a woodland >4 ha.	<b>MEDIUM</b> Patch 2.0 – 9.0 ha in size OR patch contains a woodland 2-4 ha.	<b>LOW</b> Patch < 2.0 ha in size.	
	<b>B) Patch Shape and Presence of Interior</b>	<b>HIGH</b> Patch contains interior habitat that is more than 100 m from the edge OR has a Perimeter: Area ratio <1.5 m/m <sup>2</sup> .	<b>MEDIUM</b> Patch contains no interior habitat but has a Perimeter:Area ratio 1.5 – 3.0 m/m <sup>2</sup> .	<b>LOW</b> Patch contains no interior and has a Perimeter:Area ratio > 3.0 m/m <sup>2</sup>	
	<b>C) Bird Species</b>	<b>HIGH</b> Patch provides breeding habitat for any three (3) or more bird species of conservation concern, including provincially rare bird species (MNRF, 2015a) or species of regional concern (Partners in Flight, 2020).	<b>MEDIUM</b> Patch provides breeding habitat for one (1) or two (2) bird species of conservation concern, including provincially rare bird species (MNRF, 2015a) or species of regional concern (Partners in Flight, 2020).	<b>LOW</b> Patch does not provide breeding habitat any bird species of conservation concern, including provincially rare bird species (MNRF, 2015a) or species of regional concern (Partners in Flight, 2020).	
Score <b>Criterion 2.2</b> based on the highest standard achieved for any one of the three standards.					

<b>Criterion 2.3</b> <b>Diversity of Communities, Landforms and Associated Species</b>	<b>A) ELC Community Diversity</b>	<b>HIGH</b> – Patch contains 6 or more ELC Community Series	<b>MEDIUM</b> – Patch contains 3-5 ELC Community Series	<b>LOW</b> – Patch contains 1-2 ELC Community Series	
	<b>B) Community and Topographic Diversity (variation and heterogeneity)</b>	<b>HIGH</b> – Patch contains three (3) or more Ecosites in one (1) Community Series OR four (4) or more Vegetation Types OR three (3) or more topographic features (e.g. tableland, rolling upland, valley slope, terrace, bottomland).	<b>MEDIUM</b> – Patch contains two (2) or more Ecosites in one Community Series OR by three (3) Vegetation Types OR two (2) topographic features, or one (1) Vegetation Type with inclusions or complexes.	<b>LOW</b> – Patch relatively homogenous; one (1) Ecosite OR one (1) to two (2) Vegetation Types on one (1) topographic feature.	
	<b>C) Diversity (species and individuals) and Critical Habitat Components for Amphibians</b>	<b>HIGH</b> – three (3) or more species of amphibians present in the patch, OR one (1) species of amphibian that is abundant in one (1) or more communities; OR two (2) or more critical habitat components present in the patch.	<b>MEDIUM</b> – 1-2 species of amphibians present in the patch; OR one (1) species of amphibian that is occasional* in one (1) or more communities; OR one (1) critical habitat components present in the patch.	<b>LOW</b> – No species of amphibian present in the patch, OR no critical habitat components present in the patch.	
	<b>D) Presence of Conifer Cover</b>	<b>HIGH</b> – Patch contains one or more conifer communities that are > 4.0 ha in size.	<b>MEDIUM</b> – Patch contains one or more conifer communities that are between 2.0 and 4.0 ha in size.	<b>LOW</b> – Patch contains conifer communities < 2.0 ha in size.	
	<b>E) Fish Habitat Quality</b>	<b>HIGH</b> – Dissolved oxygen > 8.0 mg/L OR abundant instream woody debris and rocks and watercourse with a natural channel located within or contiguous with the patch.	<b>MEDIUM</b> – Dissolved oxygen 5.0 – 8.0 mg/L OR moderate amount of instream woody debris and rocks and portions of channelized watercourses within or contiguous with the patch.	<b>LOW</b> – Dissolved oxygen < 5.0 mg/L OR no instream woody debris and sparse structure and entire watercourse channelized within or contiguous with the patch.	
	Score for <b>Criterion 2.3</b> based on the highest standard achieved for any one of the five standards.				
<b>Criterion 4.1 – Significant habitat for endangered or threatened species.</b>	<b>A) Species At Risk Habitat</b>	SAR habitat present or previously identified: <b>YES</b> or <b>NO</b>			
	The presence of SAR habitat will add one <b>HIGH</b> score to the overall assessment				
	<b>A) ELC Community SRANK</b>	<b>HIGH</b> – One (1) or more communities with an SRANK of S3	<b>MEDIUM</b> – No communities with an	<b>LOW</b> – No communities with an	

<b>Criterion 5.1 – Distinctive, unusual or high-quality communities.</b>		or lower.	SRANK lower than S4.	SRANK lower than S5.	
	<b>B) Significant Wildlife Habitat</b>	SWH habitat present or previously identified: <b>YES</b> or <b>NO</b>			
	The presence of SWH habitat will add one HIGH score to the overall assessment				
	<b>C) Rare Plant Species Presence / Absence</b>	<b>HIGH</b> – 1 Rare Plant (S1-S3) or 4 Regionally Rare plants	<b>MEDIUM</b> – 1-3 Regionally Rare plants	<b>LOW</b> – 1 Regionally Uncommon Plant	
	<b>D) Size and distribution of trees</b>	<b>HIGH</b> – trees > 50 cm dbh abundant in one or more communities within the patch.	<b>MEDIUM</b> – trees > 50 cm dbh rare or occasional in one or more communities within the patch.	<b>LOW</b> – trees > 50 cm dbh not present in any communities within the patch.	
	<b>E) Basal Area</b>	<b>HIGH</b> – Average basal area of trees for any community in the patch ≥ 16m <sup>2</sup> /ha for trees >25 cm DBH; OR > 24 m <sup>2</sup> /ha for trees > 10 cm DBH; OR all diameter class sizes are represented in the stand (saplings < 10 cm; polewood 10-24 cm; small sawlog 26-36; medium sawlog 38-48 cm; large sawlogs 50-60 cm; x-large or veteran trees > 62 cm.	<b>MEDIUM</b> – Average basal area for any community in the patch 12 – 24 m <sup>2</sup> /ha of trees >10 cm DBH; OR missing one of polewood, small, medium, or large size classes.	<b>LOW</b> – Average basal area for all communities in the patch < 12 m <sup>2</sup> /ha for trees > 10 cm DBH; OR missing two or more of polewood, small, medium, or large size classes.	
Score for <b>Criterion 5.1</b> based on the highest standard achieved for any one of the five standards					
<b>Criterion 5.2 – Distinctive, Unusual or High-Quality Landforms</b>	<b>A) Distinctive landform types</b>	<b>HIGH</b> – Patch located on an Earth Science ANSI OR on the Beach Ridge or Sand Plain physiographic landform units.	<b>MEDIUM</b> – Patch located on the Till Plain or Till Moraine physiographic landform unit.	<b>LOW</b> – Patch is located on the Spillway physiographic landform unit.	
	Score for <b>Criterion 5.2</b> based on the highest standard achieved.				
<b>Woodland Evaluation Score</b>					
<b>Significant Woodlan</b>					