

Table summarizing criteria categories and criteria used to identify the recommended Natural Heritage System (NHS) for the City of Guelph and associated *draft* natural heritage policies

Categories	Criteria + Minimum Buffers	Draft Policies
1. Areas of Natural & Scientific Interest (ANSI)	<p>1(a) Provincially Significant Life Science ANSI + 20 m buffer*</p> <p>1(b) Provincially Significant Earth Science ANSI + 10 m buffer</p> <p>1(c) Regionally Significant Life Science ANSI + 20 m buffer*</p> <p>1(d) Regionally Significant Earth Science ANSI (no buffer)</p>	<p>Development not permitted in any type of ANSI except for works related to: flood and erosion control, habitat conservation / restoration or passive recreation (e.g., trails and interpretive signs).</p> <p>Development not permitted in buffers to ANSIs except for the uses listed above and low impact storm water management facilities provided no negative impacts are demonstrated through an approved Environmental Impact Study (EIS).</p>
2. Habitat for Provincially Threatened (THR) & Endangered (END) Species	<p>2(a) Habitat for species provincially designated END or THR in Ontario's <i>Endangered Species Act</i>* + buffers TBD</p>	<p>Development not permitted in habitat for THR and END species.</p> <p>Extent of habitat required and associated buffers to be determined on a case by case basis in consultation with OMNR and Recovery Team (if applicable) and subject to an approved EIS.</p>
3. Significant Wetlands	<p>3(a) Provincially Significant Wetlands (PSW) + 30 m buffer</p> <p>3(b) Locally Significant Wetlands (LSW) + 15 m buffer</p> <p>3(c) Other wetlands in closed depressions + 15 m buffer</p> <p>3(d) Other wetlands not in closed depressions + buffer TBD</p>	<p>Development not permitted in any type of wetlands except for category 3(d) where those wetlands are determined not to provide significant wetland functions and subject to approval by the GRCA in accordance with their policies.</p> <p>Development not permitted in buffers to wetlands except for works related to: flood and erosion control, habitat conservation / restoration, and passive recreation (e.g., tertiary trails) as supported through an approved EIS</p> <p>Proposed development outside the minimum buffer area but within 120 m of a PSW and 30 m of all other wetlands may be permitted provided no negative impacts are demonstrated through an approved EIS and subject to approval from GRCA.</p> <p>The status and boundaries of "other wetlands" in category 3(d) needs to be field verified.</p>
4. Surface Water & Fisheries Resources	<p>4(a) Permanent streams / ponds + 15 m buffer</p> <p>4(b) Intermittent streams +15 m buffer</p> <p>FISH HABITAT</p> <p>4(c) Cold Water + 30 m buffer</p> <p>4(d) Cool Water + 30 m buffer</p> <p>4(e) Warm Water + 15 m buffer</p> <p>4(f) Undetermined + 15 m buffer</p>	<p>Development not permitted in any type of stream or fish habitat except for works related to: flood and erosion control, habitat conservation / restoration, or other works permitted by the GRCA and/or the Department of Fisheries and Oceans (DFO) provided no negative impacts are demonstrated through an approved EIS and subject to approval from GRCA and/or DFO.</p> <p>Development not permitted in buffers to streams or fish habitat except for works related to: flood and erosion control, habitat conservation / restoration, passive restoration (e.g., trails) or low impact storm water management facilities provided no negative impacts are demonstrated through an approved EIS and subject to approval from GRCA and/or DFO.</p> <p>Infrastructure should avoid surface water and fisheries resources, however, provision for essential infrastructure, including roads, trails and/or linear utilities may cross a stream and/or fish habitat provided no negative impacts are demonstrated through an approved EIS and subject to approval from GRCA and/or DFO.</p>

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<p>4. Surface Water & Fisheries Resources <i>cont'd</i></p>		<p>Opportunities to restore piped or culvertized streams to a more natural form to be pursued.</p> <p>Proposed development within 50 m of a stream or fish habitat is subject to an EIS and subject to approval from GRCA and/or DFO.</p> <p>Fish habitat classifications need to be field verified.</p>
<p>5. Significant Woodlands</p>	<p>5(a) Woodlands ≥ 1 ha + 10 m buffer</p> <p>5(b) Locally Significant Woodland Types ≥ 0.5 ha (not already captured by 5a) + 10 m buffer</p> <p>5(c) Cultural Woodlands ≥ 1 ha + buffer TBD</p>	<p>5(a) & (b) Development not permitted in woodlands except for works related to: flood and erosion control, wildlife habitat conservation / restoration. Trails are to be directed to woodland buffers and may only be permitted within the woodlands if no negative impacts are demonstrated through an approved EIS.</p> <p>Development not permitted in buffers to woodlands except for works related to: flood and erosion control, habitat conservation / restoration, passive recreation (e.g., trails) or low impact storm water management facilities provided no negative impacts are demonstrated through an approved EIS.</p> <p>Development within 50 m of a woodland may be permitted provided no negative impacts are demonstrated through an approved EIS.</p> <p>5(c) Development may be permitted in cultural woodlands (and plantations) subject to an approved EIS and associated tree preservation plan that identifies any opportunities for protection of healthy native species and tree planting.</p>
<p>6. Significant Valleylands</p>	<p>6(a) Regulatory floodplain</p> <p>6(b) Other Valleys</p>	<p>Development within regulatory floodplains and other and remnant significant valleys is not permitted except for works related to: flood and erosion control, habitat conservation / restoration, passive recreation (e.g., trails), essential infrastructure, linear utilities and low impact storm water management facilities provided no negative impacts are demonstrated through an approved EIS and subject to approval from GRCA.</p> <p>In all instances, stormwater management facilities are required to be above the meander belt, or the 100 year flood plain, whichever is greater.</p> <p>Development within buffers may be permitted provided no negative impacts are demonstrated through an approved EIS and, where applicable, approval from GRCA.</p>
<p>7. Significant Landform</p>	<p>7(a) Significant Portions of the Paris-Galt Moraine (no buffer)</p>	<p>Development not permitted in significant portions of the Paris-Galt Moraine, as identified, except for works related to: habitat conservation / restoration, required municipal water supply wells, essential linear utilities and passive recreation (e.g., trails) provided no negative impacts are demonstrated through an approved EIS.</p> <p>Approved works will not involve grading to these areas.</p> <p>Opportunities to restore habitats to be encouraged.</p>
<p>8. Significant</p>	<p>8(a) Deer wintering areas (no</p>	<p>8(a), (b), (c), (d) Development is not permitted in these areas, as</p>

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Wildlife Habitat**	<p>buffer)</p> <p>8(b) Waterfowl overwintering areas (no buffer)</p> <p>8(c) Provincially Significant Vegetation Types**+ buffers TBD</p> <p>8(d) Locally Significant Vegetation Types ≥0.5 ha (not already captured by Criteria 3 or 5) + buffers TBD</p> <p>8(e) Habitat for Globally, Nationally and Provincially Significant Species (not captured by Criterion 2)</p> <p>8(f) Habitat for Locally Significant Species (not captured by Criteria 2 or 8(e))</p> <p>8(g) Ecological Linkages (no buffer)</p>	<p>identified, except for works related to: flood and erosion control, wildlife habitat conservation / restoration, passive recreation (e.g., tertiary trails and interpretive signs) provided no negative impacts are demonstrated through an approved EIS.</p> <p>8(e) & (f) Extent of habitat required and associated buffers to be determined on a case by case basis subject to an approved EIS.</p> <p>8(f) Extent of habitat required and associated buffers to be determined on a case by case basis subject to an approved EIS.</p> <p>8(g) Development not permitted in ecological linkages except for works related to: wildlife habitat conservation / restoration, essential transportation, linear utilities, passive recreation (e.g., trails) and limited low impact storm water management facilities provided no negative impacts are demonstrated through an approved EIS.</p> <p>Linkages surrounded by natural features identified by Criteria 1-7 will be subject to the applicable policies of the surrounding feature.</p>
9. Supportive Ecological Functions	9(a) Naturalization / Restoration Areas (potential, planned and existing)	<p>Lands closely associated with the NHS where naturalization / restoration is being or should be applied primarily on City of GRCA lands. Storm water management facilities (existing and planned) are included.</p> <p>Naturalization/ restoration areas surrounded by natural features identified by Criteria 1-7 will be subject to the applicable policies of the surrounding feature.</p>
10. Wildlife Crossings	<p>10 (a) Confirmed deer crossings</p> <p>10 (b) Confirmed amphibian crossings</p> <p>10 (c) Other wildlife crossing opportunities</p>	<p>These flag approximate locations where mitigation measures (e.g., underpasses) to facilitate safe wildlife crossing should be implemented during road improvements or upgrades. Some measures (e.g., warning signs) may be implemented sooner.</p>

* There are currently no areas in the City of Guelph meeting this criterion.

** This is not a comprehensive list of significant wildlife habitat (SWH) criteria, but a list of criteria for which data was available at the time of the study. A complete list of all SWH criteria potentially applicable in the City of Guelph that should be considered at the site-specific level is provided in the study report (Volume 1).

MAPPING NOTE: Every effort has been made to ensure the mapping for this study is based on the most current available data. However, mapping for a number of natural heritage features and/or ecological functions still needs to be verified and refined in the field at the site-specific scale.

DEFINITIONS

MINIMUM BUFFERS identify minimum vegetation protection zones around significant features in the NHS. Buffers may include any natural areas (including cultural meadows or thickets), plantations, hedgerows, agricultural lands, City parklands or GRCA lands identified for open space uses, and current golf courses. Buffers could not be applied, in whole or in part, in some areas that have already undergone development. However, for areas to be developed, site-specific studies may find that in some cases these minimums are not adequate and that wider buffers need to be identified.

CULTURAL WOODLANDS are lands that have reforested naturally with tree cover between 35% and 60% and naturalized groundcover.

DEVELOPMENT is defined in Provincial Policy (2005) as "the creation of a new lot, a change in land use, or the construction of buildings and structures, requiring approval under the *Planning Act*".

ECOLOGICAL LINKAGES are meant to facilitate movement of flora and fauna between various significant natural areas and must be identified in relation to these other areas. Ideally, linkages should be at least 50 m wide but closer to 100 m where possible with a target width to length ratio of 1:2. However, depending on the adjacent land uses and existing opportunities, narrower and longer linkages have been (and could be) identified.

ENVIRONMENTAL IMPACT STUDIES (EIS) are site-specific studies triggered by proposed development within or adjacent to significant natural heritage features which provide a comprehensive assessment of existing conditions and assess the anticipated impacts of the proposed development on natural features within the study area or their ecological functions.

ESSENTIAL INFRASTRUCTURE means that which is considered by Council to be necessary and in the public interest after all reasonable alternatives have been considered.

GRCA = Grand River Conservation Authority

PARIS-GALT MORaine is a large 6.4 to 8 km wide feature consisting of a complex of hummocky topography and kettle features of which a portion extends across the southern portion of the City of Guelph. Lands with this unique topography contribute disproportionately to local groundwater recharge, which also supports cold water fisheries and recharges deeper aquifers used for water supply.

RESTORATION / NATURALIZATION AREAS are areas that contribute to the biodiversity and connectivity potential of the *Natural Heritage System* where restoration and naturalization activities will be focused. These include lands owned by the City of Guelph or the Grand River Conservation Authority, existing and approved storm water management areas, and small areas surrounded by lands that meet Criteria 1 through 7.