

City of London

“Draft” Southwest Area Plan – Natural Heritage Study

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could be seen moving from all directions towards the pond through the grass. There were also several large leeches observed swimming throughout the water, which likely reached the pond by attaching to over-land travelling frogs and/or turtles, and possibly waterfowl.

Several Northern Leopard Frog was observed foraging in the field between Patch 10069 and 10070, and a Gray Tree Frog was observed calling from Patch 10069 on June 4 2009. Lower levels of calling activity that were most likely weather-related were observed on the second visit in June.

On a following daytime visit nearly two weeks later to Patch 10066, across the agricultural field to the north of Patch 10069, a single American Toad was observed moving from the direction of the church through the field towards Patch 10066; this, as well as the leeches, gives an indication that toads, and likely other amphibians and animals, travel in between patches to access the habitat necessary to complete their life cycle.

2.7.3.2 *Lambeth Area*

Patch 10075 on the Fratscko property had two ponds in an area of wetland; one is a dug-out pond that was surrounded by thick conifers, just at the edge of a wooded area bordering a meadow; the other is a much smaller pond less than 200 m to the northwest. The larger pond was surveyed May 21 and June 9 2009; small schools of small minnow-sized fish were observed. On both survey evenings no amphibians were heard calling from the smaller pond. However, during a daytime site visit earlier in the season, American Toad tadpoles were observed in open water in tire ruts and other scraped/cut-over areas in the wetland/swamp area at the north of the Patch. The larger pond was deeper than hip wader height, and much of the land surrounding the east, north and south of this pond was wet and swampy with pools of standing water. There was also a high amount of fallen woody debris and standing dead snags, and both submerged and emergent aquatic vegetation was present. American Toad, Spring Peeper, Northern Leopard Frog, Gray Tree Frog, and Green Frog were all observed calling here. During a subsequent daytime visit June 24 2009, several Green Frog tadpoles were observed in the swampier areas surrounding the amphibian survey station and a Gray Tree Frog was heard calling.

2.7.3.3 *Bostwick Area*

No amphibian surveys were conducted in the Bostwick area due to a lack of landowner permission.

2.7.3.4 *Longwoods Area*

Patch 10090 was surveyed May 21 and June 9 2009; on both evenings no calling frogs were observed. Although the majority of the aquatic habitat consisted of running water (frogs prefer standing water to breed), on June 24 2009 while conducting a breeding bird survey several adult Green Frogs were observed throughout the patch and tadpoles were observed in the wetland patch; at the time, the water levels in the wetland patch were above knee-height. There was other potential wildlife habitat available at this site, including standing and fallen snags, denning habitat, and a high amount of amphibian foraging habitat. Several Green Frogs and Leopard Frogs were observed during daytime visits foraging both within and adjacent to the watercourse.

2.7.3.5 *Dingman Area*

No amphibian surveys were conducted in the Dingman area due to a lack of landowner permission.

2.7.3.6 *Brockley Area*

A small portion of Patch 10101 was surveyed from the roadside May 21 and June 9 2009 as a lack of landowner permission prohibited access to other amphibian breeding habitat within the patch. On both evenings no calling frogs were observed. This is likely due to the majority of the accessible habitat consisting of running water; which is suitable for foraging amphibians but not for breeding. Snags and den trees were present, as were fallen logs and potential reptile hibernacula (the concrete bridge). Several Green Frogs and Leopard Frogs were observed during daytime visits to this patch foraging both within and adjacent to the watercourse.

Table 14 below summarizes the results of the amphibian surveys.

Table 14: Summary Table of Amphibian Surveys

| Date and Weather | Area and Patch Number | Site | UTM Coordinates | Species | Code | Number | | |
|---|--|--|------------------------|--------------------------------------|------------------------|---------------|---|---|
| May 21 2009; 10:00pm 19°C, no wind, 0% cloud cover, no precipitation | Lambeth Area - 10075 | Pond rimmed by conifers; | 477620 E, 4750675 N | American Toad | 1 | 2 | | |
| | | | | Spring Peeper | 1 | 2 | | |
| | | | | Gray Tree Frog | 1 | 2 | | |
| | | | | Green Frog | 1 | 4 | | |
| | Talbot Area - 10069 | Pond south of church driveway | 476141 E, 4752215 N | American Toad | 1 | 1 | | |
| | | | | Spring Peeper | 1 | 1 | | |
| | | | | Gray Tree Frog | 2 | 7 | | |
| | | Pond north of church driveway | 476123 E, 4752228 N | American Toad | 1 | 3 | | |
| | | | | Pond southwest of church parking lot | 475906 E, 4752105 N | American Toad | 1 | 2 |
| | | | | | | Spring Peeper | 1 | 3 |
| | Gray Tree Frog | 2 | 10 | | | | | |
| | Longwoods Area - 10090 | By roadside | 479813 E, 4750950 N | None calling | | | | |
| | Brockley Area - 10101 | By roadside | 483094 E, 4750983 N | None calling | | | | |
| | Bostwick | <i>No patches within this area were surveyed in 2009 due to lack of landowner permission</i> | | | | | | |
| Dingman | <i>No patches within this area were surveyed in 2009 due to lack of landowner permission</i> | | | | | | | |
| June 9 2009; 10:00pm 10°C, wind 5-10 km/hr, 50% cloud cover, no | Lambeth Area - 10075 | Pond rimmed by conifers | 477620 E, 4750675 N | Leopard Frog | 1 | 1 | | |
| | | | | Green Frog | 1 | 4 | | |
| | Talbot Area - 10069 | Pond south of church driveway | 476141 E, 4752215 N | None calling | | | | |
| | | Pond north of church driveway | 476123 E, 4752228 N | Green Frog | 1 | 1 | | |
| Pond southwest of church | 475906 E, | Leopard Frog | 1 | 1 | | | | |

| Date and Weather | Area and Patch Number | Site | UTM Coordinates | Species | Code | Number |
|------------------|------------------------|-------------|------------------------|--------------|------|--------|
| precipitation | | parking lot | 4752105 N | Green Frog | 1 | 2 |
| | Longwoods Area - 10090 | By roadside | 479813 E, 4750950 N | None calling | | |
| | Brockley Area - 10101 | By roadside | 483094 E, 4750983 N | None calling | | |

2.7.4 Discussion

The spring and summer of 2009 was unseasonably cool and wet; April amphibian auditory surveys could not be conducted as the appropriate weather conditions were not achieved in April once landowner permission was received, and the May survey was conducted after the typical timing window in order to capitalize on ideal survey temperatures that had not been reached in May before that night. June surveys were conducted in less than ideal temperatures in order to capture any amphibians calling within the appropriate timing window as the desired night time temperature had not yet been reached, and forecasts did not predict warmer temperatures for the remainder of the month. For patches where landowner permission was not received, attempts to survey for calling amphibians from the roadside were thwarted by heavy traffic noise.

Other species of amphibians which likely use the ponds and other potential amphibian habitat within the study area include the Wood Frog (*Rana sylvatica*) and Western Chorus Frog (*Pseudacris triseriata*); as these species call earlier in the season and landowner permission was not obtained by that period in time they were likely missed.

Although the spring and summer’s unusually cool temperatures likely affected the calling activity and the results of the amphibian survey, the amphibian habitat at both Patches 10069 and 10075 showed the highest numbers and highest diversity of calling amphibians of all surveyed areas.

The Western Chorus Frog has recently been listed as Threatened by COSEWIC in the Great Lakes – St. Lawrence Lowlands region of Ontario, though found to be Not at Risk in the Carolinian region, which includes the study area. There were no observations of any Red Efts, the terrestrial larval stage of the aquatic Red-spotted Newt (*Notophthalmus viridescens*); these are more commonly expected in older forests with larger permanent sources of standing water nearby. They may be present in some patches within the study area, including Patch 10075 and patches that were not surveyed.

The aquatic larva of Mole salamanders (*Ambystoma* sp.) such as the Spotted and Blue-spotted Salamanders were not observed within the survey patches; however this does not preclude their presence in other patches. Their reproductive success, and therefore their detectability within the surveyed patches may have been affected by the unusually cool spring and summer temperatures.

Reptiles

Though only two Eastern Garter Snakes (*Thamnophis sirtalis*) were observed at Patch 10090, the habitat is suitable at all patches for this species.

Eastern Grey Squirrel (*Sciurus carolinensis*)
Striped Skunk (*Mephitis mephitis*)
Virginia Opossum (*Didelphis virginiana*)
Mink (*Mustela vison*)
Coyote (*Canis latrans*)
Red Fox (*Vulpes vulpes*)

The Mink and Opossum were observed in Patch 10090 along Dingman Creek, and the Meadow Jumping Mouse was observed in the thick vegetation of the hydro cut in Patch 10075, and Red Fox scat was observed in Patch 10075. The lack of observations of these mammals in other patches does not preclude their presence. All of the surveyed patches showed evidence of the other mammal species.

Other Wildlife

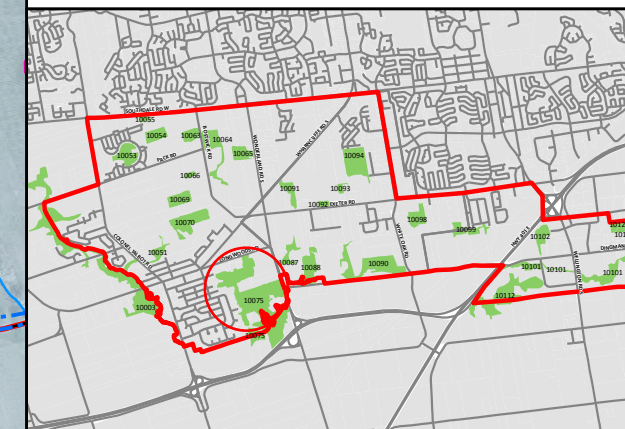
Monarch Butterflies (*Danaus plexippus*) were observed within several patches which had open field habitat suitable for milkweed to grow, namely 10075, 10090 and 10069. Ebony Jewelwings (*Calopteryx maculata*), a species of damselfly indicative of a permanent freshwater source, were observed at Patches 10090, 10069, and 10101. Several Twelve-spotted Skimmers (*Libellula pulchella*), a species of dragonfly, were observed at Patch 10090; and two extremely large dragonflies, potentially Swamp Darners (*Epiaeschna heros*) judging from time of year, suitable habitat present, and their large size, were observed in Patch 10075. Digger or Chimney Crayfish (*Fallicambarus fodiens*) were present in Patches 10127 and 10075 in various wet areas both within and adjacent to the wooded areas. Several large leeches were also visible swimming in the pond north of the church driveway by Patch 10069; they likely arrived at the pond while attached to an over-land travelling turtle, a common way for leeches to both breed and travel between water bodies.

Birds











A total of 71 bird species were observed throughout the surveyed patches. This total includes two species at risk, no provincially rare species, and 11 area-sensitive species. Also, 15 species observed in the study area are identified as 'Priority Species' by Partners In Flight Ontario/Bird Studies Canada's Landbird Conservation Plan, and 31 species that were identified by Bird Studies Canada as Conservation Priority Species for Middlesex County. Table 15 below gives a summary of these findings per patch, and Table 16 shows which species were observed per patch.

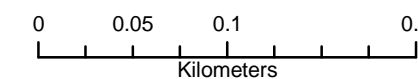


City of London South West Area Plan



Legend

-  Naturalization Area
-  Roads
-  SWAP Boundary
-  Rivers
-  Floodline
-  Patch Boundaries
-  Unevaluated Wetlands
-  Ground Water Recharge Area
-  Significant River, Stream & Ravine Corridor
-  Unevaluated Vegetation
-  Potential ESA
-  ESAs
-  Big Picture



Official Plan Natural Heritage Feature Designations

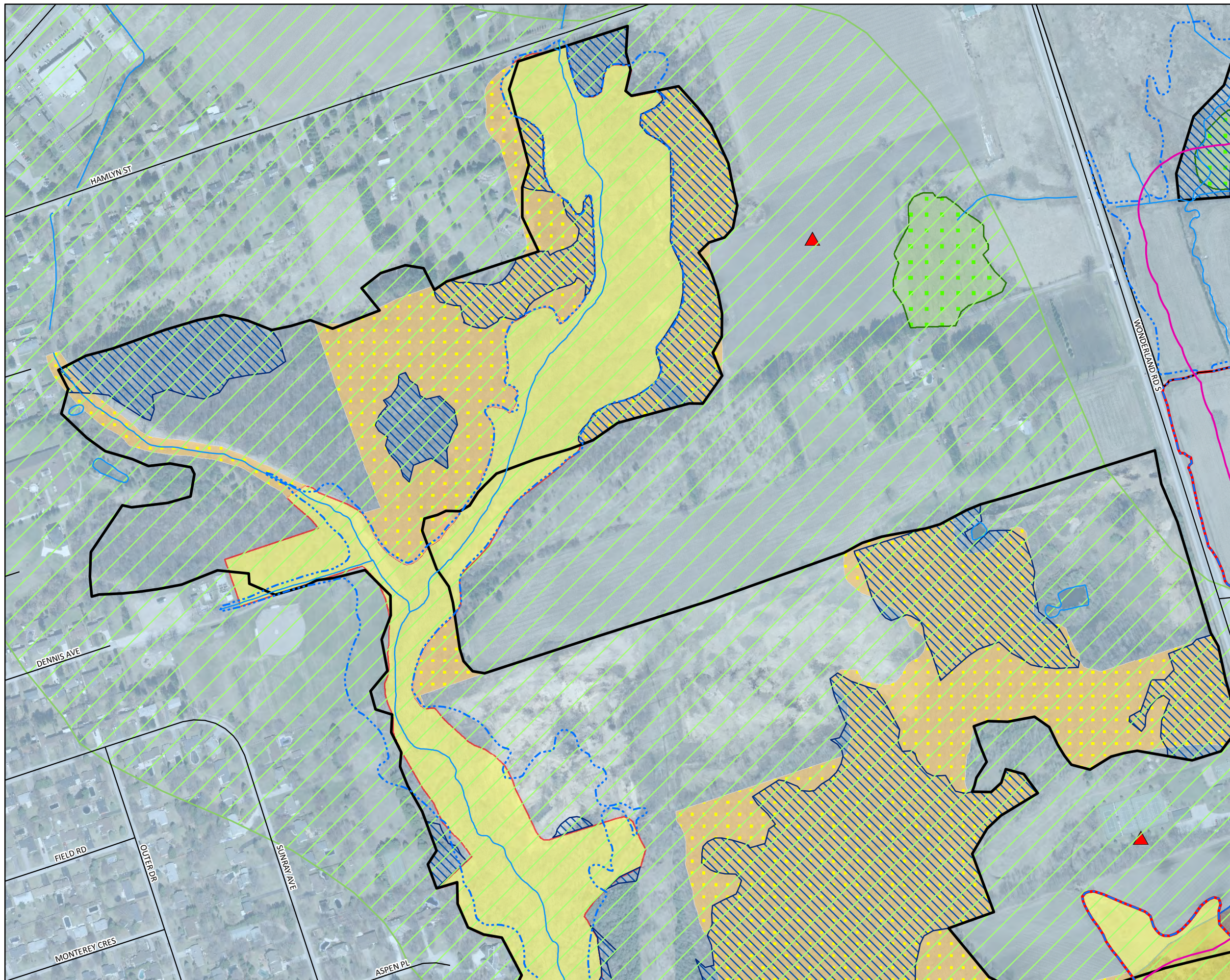
Patch 10075a

1:4,000

Datum: NAD 83, Zone 17
Source: City of London

March 2010

PN: 60118887



2006 Woodland Evaluation results – Patch 10075

| Assessment Component | Score | Rationale |
|--------------------------------------|---------------------------|---|
| 1.1 Site Protection | High | A) High – patch contains wetland > 2ha in size (approx. 8.6 ha) and watercourse B) Low – overall gentle slopes (average slope less than 10%) |
| 1.2 Landscape Integrity | High | A) Medium – Woodland cover within 2 km estimated between 7-10% B) High – directly connected through waterways C) High – patch is isolated and 89.2 ha in size |
| 2.1 Age & Site Quality | High | A) High – Contains mature woodland community types B) High – one or more vegetation community has a MCC greater than 4.6 C) Medium – Patch contains a combination of communities in good, fair and poor condition. |
| 2.2 Size & Shape | High | A) High – Patch is approximately 89.2 ha in size B) High – Patch contains forest interior C) High – Fourteen Conservation Priority birds at Levels 1 and 2 were observed |
| 2.3 Diversity | High | A) High – Patch contains 3 community series B) High – Patch Contains four or more Vegetation Types C) High – 4 critical amphibian habitat components (unpolluted shallow water that remains wet during breeding season; emergent and submergent aquatic vegetation; closed canopy offering a shaded moist understory environment and abundance of coarse woody debris) D) Low – Patch contains conifer communities <2.0ha in size. E) High – contains natural channel with fish habitat present |
| 3.0 Threatened or Endangered Species | N/A | No VTEs present |
| 4.1 High Quality Communities | High | A) Medium – no communities with an srnk higher than S4 B) Medium – Carolinian species present C) Medium – trees > 50 cm dbh rare or occasional in one or more communities within the patch D) Medium – Average basal area 12-24 m ² /ha |
| 4.2 High Quality Landforms | Medium | A) Medium – Patch located on the Till Plain |
| Total Score | High 6 Medium 1 Low | Significant Woodland |