Appendix G

Natural Heritage Species and Habitat Analyses (Aquatic and Terrestrial)

Appendix G1

Fisheries Data

Appendix G1

Fisheries Data (from the Clair Maltby Secondary Plan 2017 Monitoring Report)

Table F-1. Fish Species Records for the Hanlon Creek Watershed in the Secondary Study Area

Common Name	Scientific Name	Thermal Regime	Tolerance	Status		MNRF 1999		Aquafor Beech 2012	
				Regional/ Local Rank	SRank	Fish Dot Code	# of Specimens	Fish Dot Code	# of Specimens
Brook Stickleback	*Culaea inconstans*	coolwater	intermediate	HR	S5	10-7	300+		
Brook Trout	*Salvelinus fontinalis*	coldwater	intolerant		S5	10-29	N/A		
Brown Bullhead	*Ameiurus nebulosus*	warmwater	tolerant	HR	S5			Neumann Pond A	16
Central Mudminnow	*Umbra limi*	coolwater	tolerant		S5	10-7	37		
Goldfish	*Carassius auratus*	warmwater	tolerant	E	SE			Neumann Pond A	767
Northern Redbelly Dace	*Phoxinus eos*	coolwater	intermediate	HR	S5	10-7	62		

Table F-2. Fish Species Records for the Mill Creek Watershed in the Secondary Study Area									
Common Name	Scientific Name	Thermal Regime	Tolerance	Status		MNRF 2010		MNRF 2012	
				Regional/ Local Rank	SRank	Fish Dot Code	# of Specimens	Fish Dot Code	# of Specimens
Brook Stickleback	*Culaea inconstans*	coolwater	intermediate	HR	S5	1-156	5	1-180	1
Blacknose Dace	*Rhinichthys obtusus*	coolwater	intermediate	HU	S5			1-180	1
Central Mudminnow	*Umbra limi*	coolwater	tolerant		S5	1-156	2	1-180	61
Northern Redbelly Dace	*Phoxinus eos*	coolwater	intermediate	HR	S5	1-156		1-180	25

Appendix G2

Clair-Maltby Secondary Plan
Provincially Endangered and Threatened Species at Risk Screening

Appendix G2

Clair-Maltby Secondary Plan Provincially Endangered and Threatened Species at Risk Screening

Taxonomy	Column1	ESA Status	SARA Status	Preferred Habitat[1, 2]	Known Species Range[1, 2]	Habitat Presence in PSA	Species Confirmed Present in the PSA or SPA
Plants	Butternut *Juglans cinerea*	END	END Schedule 1	In Ontario, Butternut usually grows alone or in small groups in deciduous forests. It prefers moist, well-drained soil and is often found along streams. It is also found on well-drained gravel sites and rarely on dry rocky soil. This species does not do well in the shade, and often grows in sunny openings and near forest edges.	Butternut can be found throughout central and eastern North America. In Canada, Butternut occurs in Ontario, Quebec and New Brunswick. In Ontario, this species is found throughout the southwest, north to the Bruce Peninsula, and south of the Canadian Shield.	**Yes** Suitable habitat is present within the PSA and SPA	**No** Butternut not confirmed present in PSA or SPA
Amphibians	Jefferson Salamander *Ambystoma jeffersonianum*	END	THR Schedule 1	Adults live in moist, loose soil, under logs or in leaf litter. Your best chance of spotting a Jefferson salamander is in early spring when they travel to woodland ponds to breed. They lay their eggs in clumps attached to underwater vegetation. By midsummer, the larvae lose their gills and leave the pond and head into the surrounding forest. Once in the forest, Jefferson salamanders spend much of their time underground in rodent burrows, and under rocks and stumps. They feed primarily on insects and worms.	In Canada, it is found only in southern Ontario, mainly along the Niagara Escarpment.	**Yes** Suitable habitat is present within the PSA and SPA within woodlands and woodland ponds	**No** Jefferson Salamander not confirmed present in PSA or SPA
Reptiles	Blanding's Turtle *Emydoidea blandingii*	THR	THR Schedule 1	Blanding's Turtles live in shallow water, usually in large wetlands and shallow lakes with lots of water plants. It is not unusual, though, to find them hundreds of metres from the nearest water body, especially while they are searching for a mate or traveling to a nesting site. Blanding's Turtles hibernate in the mud at the bottom of permanent water bodies from late October until the end of April.	The Blanding's Turtle is found in and around the Great Lakes Basin, with isolated populations elsewhere in the United States and Canada. In Canada, the Blanding's Turtle is separated into the Great Lakes-St. Lawrence population and the Nova Scotia population. Blanding's Turtles can be found throughout southern, central and eastern Ontario.	**Yes** Suitable habitat is present within the PSA and SPA within larger wetlands or ponds with lots of water vegetation	**No** Blanding's Turtle not confirmed present in PSA or SPA
Birds	Yellow-breasted Chat *Icteria virens*	END	END Schedule 1	The Yellow-breasted Chat lives in thickets and scrub, especially locations where clearings have become overgrown. These birds spend their winters in coastal marshes.	In Canada, it lives in southern British Columbia, the Prairies, and southwestern Ontario, where it is concentrated in Point Pelee National Park and Pelee Island in Lake Erie.	**Yes** Suitable habitat is present within the PSA and SPA within thicket habitat	**Yes** Yellow-breasted Chat confirmed in the south-western section of the PSA within thicket habitat
Birds	Barn Swallow *Hirundo rustica*	THR	THR Schedule 1	Barn Swallows often live in close association with humans, building their cup-shaped mud nests almost exclusively on human-made structures such as open barns, under bridges and in culverts. The species is attracted to open structures that include ledges where they can build their nests, which are often re-used from year to year. They prefer unpainted, rough-cut wood, since the mud does not adhere as well to smooth surfaces.	The Barn Swallow may be found throughout southern Ontario and can range as far north as Hudson Bay, wherever suitable locations for nests exist.	**Yes** Suitable habitat is present within the PSA and SPA within human-made structures such as barns	**Yes** Barn Swallow confirmed nesting in barns within the PSA and SPA

Taxonomy	Column1	ESA Status	SARA Status	Preferred Habitat[1, 2]	Known Species Range[1, 2]	Habitat Presence in PSA	Species Confirmed Present in the PSA or SPA
Birds	Bobolink *Dolichonyx oryzivorus*	THR	THR Schedule 1	Historically, Bobolinks lived in North American tallgrass prairie and other open meadows. With the clearing of native prairies, Bobolinks moved to living in hayfields. Bobolinks often build their small nests on the ground in dense grasses. Both parents usually tend to their young, sometimes with a third Bobolink helping.	The Bobolink breeds across North America. In Ontario, it is widely distributed throughout most of the province south of the boreal forest, although it may be found in the north where suitable habitat exists.	**Yes** Suitable habitat is present within the PSA and SPA within grassland habitat	**Yes** Bobolink confirmed in the northern section of the PSA and SPA within grassland habitat
Birds	Chimney Swift *Chaetura pelagica*	THR	THR Schedule 1	Before European settlement Chimney Swifts mainly nested on cave walls and in hollow trees or tree cavities in old growth forests. Today, they are more likely to be found in and around urban settlements where they nest and roost (rest or sleep) in chimneys and other manmade structures. They also tend to stay close to water as this is where the flying insects they eat congregate.	The Chimney Swift breeds in eastern North America, possibly as far north as southern Newfoundland. In Ontario, it is most widely distributed in the Carolinian zone in the south and southwest of the province, but has been detected throughout most of the province south of the 49th parallel. It winters in northwestern South America.	**Yes** Suitable habitat is present within the PSA and SPA within human-made structures	**No** Chimney Swift not confirmed present in PSA or SPA
Birds	Eastern Meadowlark *Sturnella magna*	THR	THR Schedule 1	Eastern Meadowlarks breed primarily in moderately tall grasslands, such as pastures and hayfields, but are also found in alfalfa fields, weedy borders of croplands, roadsides, orchards, airports, shrubby overgrown fields, or other open areas. Small trees, shrubs or fence posts are used as elevated song perches.	In Ontario, the Eastern Meadowlark is primarily found south of the Canadian Shield but it also inhabits the Lake Nipissing, Timiskaming and Lake of the Woods areas.	**Yes** Suitable habitat is present within the PSA and SPA within grassland habitat	**Yes** Eastern Meadowlark confirmed in the PSA and SPA within various grassland habitats
Mammals	Eastern Small-footed Myotis (Bat) *Myotis leibii*	END	No Status	In the spring and summer, eastern small-footed bats will roost in a variety of habitats, including in or under rocks, in rock outcrops, in buildings, under bridges, or in caves, mines, or hollow trees. These bats often change their roosting locations every day. At night, they hunt for insects to eat, including beetles, mosquitos, moths, and flies. In the winter, these bats hibernate, most often in caves and abandoned mines. They seem to choose colder and drier sites than similar bats and will return to the same spot each year.	The eastern small-footed bat has been found from south of Georgian Bay to Lake Erie and east to the Pembroke area. There are also records from the Bruce Peninsula, the Espanola area, and Lake Superior Provincial Park. Most documented sightings are of bats in their winter hibernation sites.	**Yes** Suitable habitat is present within the PSA and SPA within treed areas or in buildings	**Yes** Eastern Small-footed Bat confirmed in the south-western section PSA within treed habitats
Mammals	Little Brown Myotis (Bat) *Myotis lucifugus*	END	END Schedule 1	Bats are nocturnal. During the day they roost in trees and buildings. They often select attics, abandoned buildings and barns for summer colonies where they can raise their young. Bats can squeeze through very tiny spaces (as small as six millimeters across) and this is how they access many roosting areas. Little brown bats hibernate from October or November to March or April, most often in caves or abandoned mines that are humid and remain above freezing. This species can typically be associated with any community where suitable roosting (i.e. cavity trees, houses, abandoned buildings, barns, etc.) habitat is available.	The little brown bat is widespread in southern Ontario and found as far north as Moose Factory and Favorable Lake. Outside Ontario, this bat is found across Canada (except in Nunavut) and most of the United States.	**Yes** Suitable habitat is present within the PSA and SPA within treed areas or in buildings	**n/a** Field surveys for Little Brown Bat not completed
Mammals	Northern Myotis *(Bat)* *Myotis septentrionalis*	END	END Schedule 1	Northern Myotis bats are associated with boreal forests, choosing to roost under loose bark and in the cavities of trees. These bats hibernate from October or November to March or April, most often in caves or abandoned mines.	The Northern Myotis is found throughout forested areas in southern Ontario, to the north shore of Lake Superior and occasionally as far north as Moosonee, and west to Lake Nipigon.	**Yes** Suitable habitat is present within the PSA and SPA within treed areas	**n/a** Field surveys for Tri-coloured Bat not completed

Taxonomy	Column1	ESA Status	SARA Status	Preferred Habitat[1, 2]	Known Species Range[1, 2]	Habitat Presence in PSA	Species Confirmed Present in the PSA or SPA
Mammals	Tri-coloured Bat *Perimyotis subflavus*	END	END Schedule 1	Tri-coloured Bat overwinters in caves and mines. Summer maternity colonies are sometimes in buildings, but mostly in large-diameter trees. Foraging occurs over water, along waterways and forest edges. Large open fields or clearcuts are generally avoided.	Tri-coloured Bat ranges Nova Scotia, New Brunswick, Quebec, Ontario, and the eastern half of the United States.	**Yes** Suitable habitat is present within the PSA and SPA within treed areas and buildings	**n/a** Field surveys for Tri-coloured Bat not completed
Insects	Rusty-patched Bumble Bee *Bombus affinis*	END	END Schedule 1	This species, like other bumble bees, can be found in open habitat such as mixed farmland, urban settings, savannah, open woods and sand dunes. The most recent sightings have been in oak savannah, which contains both woodland and grassland flora and fauna.	The Rusty-patched Bumble Bee was once widespread and common in eastern North America, found from southern Ontario south to Georgia and west to the Dakotas. The species has suffered rapid, severe decline throughout its entire range since the 1970s with only a handful of specimens collected in recent years in Ontario. The only sightings of this bee in Canada since 2002 have been at The Pinery Provincial Park on Lake Huron.	**Yes** Suitable habitat is present within the PSA and SPA within the agricultural lands, urban areas and open woodlands	**No** Rusty-patched Bumble Bee not confirmed present in PSA or SPA

Glossary

EXP	ESA - Extirpated - a species that no longer exists in the wild in Ontario but still occurs elsewhere.
	SARA - Extirpated - a wildlife species that no longer exists in the wild in Canada, but exists elsewhere in the wild.
END	ESA - Endangered - a species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's Endangered Species Act.
	SARA - Endangered - a wildlife species that is facing imminent extirpation or extinction.
THR	ESA - Threatened - a species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.
	SARA - Threatened - a wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.
SC	ESA - Special Concern (formerly Vulnerable) - a species with characteristics that make it sensitive to human activities or natural events.
	SARA - Special Concern - a wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.
MNRF	Ontario Ministry of Natural Resources and Forestry
ESA	Endangered Species Act
SARA	Species at Risk Act (Federal)
Schedule 1	The official list of species that are classified as extirpated, endangered, threatened, and of special concern.
Schedule 2	Species listed in Schedule 2 are species that had been designated as endangered or threatened, and have yet to be re-assessed by COSEWIC using revised criteria. Once these species have been re-assessed, they may be considered for inclusion in Schedule 1.
Schedule 3	Species listed in Schedule 3 are species that had been designated as special concern, and have yet to be re-assessed by COSEWIC using revised criteria. Once these species have been re-assessed, they may be considered for inclusion in Schedule 1.
COSEWIC	Committee on the Status of Endangered Wildlife in Canada - a committee of experts that assesses and designates which wild species are in some danger of disappearing from Canada.

References

1 - Species at Risk. Ontario Ministry of Natural Resources and Forestry. http://www.mnr.gov.on.ca/en/Business/Species/index.html. © Queens Printer for Ontario, 2013.
2 - Species at Risk Status Reports. Committed on the Status of Endangered Wildlife in Canada. Ottawa. http://www.sararegistry.gc.ca/search/advSearchResults_e.cfm?stype=doc&docID=18.

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Appendix G3

Clair-Maltby Secondary Plan
Non-Provincially Endangered and Threatened Species at Risk Screening

Appendix G3

Clair-Maltby Secondary Plan Non-Provincially Endangered and Threatened Species at Risk Screening

Taxonomy	Species	ESA Status	SARA Status	Preferred Habitat[1, 2]	Known Species Range[1, 2]	Habitat Presence in PSA	Species Confirmed Present in the PSA or SPA (See Figure # for confirmed species' locations)
Amphibians	Western Chorus Frog (Great Lakes / St. Lawrence - Canadian Shield population) *Pseudacris maculata*	No Status	THR Schedule 1	Western Chorus Frog is a lowland terrestrial species, and is found on the ground, low shrubs or grass within marshes to wooded wetland areas. For breeding and tadpole development, it requires seasonally dry, temporary ponds without predators (such as fish), and rarely inhabits permanent pond. The Western Chorus Frog is very rarely found in permanent ponds.	In Canada, the Western Chorus Frog is present in southern Ontario and southwestern Quebec. In southern Ontario, its range is bounded by the United States border in the south, Georgian Bay in the northwest, south of Algonquin Park, and up the Ottawa River valley to the vicinity of Eganville in the east. It is also found in the central and northeastern United States.	**Yes** Suitable habitat is present within the PSA and SPA within marshes and woodland ponds	**Yes** Western Chorus Frog confirmed in western portion PSA and SPA within woodlands and marshes
Reptiles	Eastern Ribbonsnake *Thamnophis sauritus*	SC	SC Schedule 1	The Eastern Ribbonsnake is usually found close to water, especially in marshes, where it hunts for frogs and small fish. A good swimmer, it will dive in shallow water, especially if it is fleeing from a potential predator. At the onset of cold weather, these snakes congregate in underground burrows or rock crevices to hibernate together.	In Ontario the eastern Ribbonsnake occurs throughout southern and eastern Ontario and is locally common in parts of the Bruce Peninsula, Georgian Bay and eastern Ontario.	**Yes** Suitable habitat is present within the PSA and SPA within habitats close to water	**Yes** Eastern Ribbonsnake confirmed in PSA within pond behind baseball diamond
Reptiles	Snapping turtle *Chelydra serpentina*	SC	SC Schedule 1	Snapping Turtles spend most of their lives in water. They prefer shallow waters so they can hide under the soft mud and leaf litter, with only their noses exposed to the surface to breathe. During the nesting season, from early to mid-summer, females travel overland in search of a suitable nesting site, usually gravelly or sandy areas along streams. Snapping Turtles often take advantage of man-made structures for nest sites, including roads (especially gravel shoulders), dams and aggregate pits.	The Snapping Turtle's range extends from Ecuador to Canada. In Canada this turtle can be found from Saskatchewan to Nova Scotia. In Ontario, it is primarily limited to the southern part of Ontario. The Snapping Turtle's range is contracting.	**Yes** Suitable habitat is present within the PSA and SPA within ponds/wetlands and on gravelly road sides	**Yes** Snapping Turtle confirmed in PSA and SPA within various ponds/wetlands and on road sides
Reptiles	Midland Painted Turtle (*Chrysemys picta marginata*)	No Status	SC Schedule 1	Painted turtles inhabit waterbodies, such as ponds, marshes, lakes and slow-moving creeks, that have a soft bottom and provide abundant basking sites and aquatic vegetation. These turtles often bask on shorelines or on logs and rocks that protrude from the water. The midland painted turtle hibernates on the bottom of waterbodies[3].	The Midland Painted Turtle's range is within eastern North America and extends from southern Ontario and Quebec in Canada to northern Alabama and Georgia in the United States[4]. In Ontario, it's range is primarily limited to southern Ontario although there are some current and historical records in central Ontario[3].	**Yes** Suitable habitat is present within the PSA and SPA within ponds/wetlands	**Yes** Midland Painted Turtle confirmed in PSA and SPA within various ponds/wetlands and on road sides
Birds	Bald Eagle *Haliaeetus leucocephalus*	SC	No Status	Bald Eagles nest in a variety of habitats and forest types, almost always near a major lake or river where they do most of their hunting. While fish are their main source of food, Bald Eagles can easily catch prey up to the size of ducks, and frequently feed on dead animals, including White-tailed Deer. They usually nest in large trees such as pine and poplar. During the winter, Bald Eagles sometimes congregate near open water such as the St. Lawrence River, or in places with a high deer population where carcasses might be found.	Bald Eagles are widely distributed throughout North America. In Ontario, they nest throughout the north, with the highest density in the northwest near Lake of the Woods. Historically they were also relatively common in southern Ontario, especially along the shore of Lake Erie, but this population was all but wiped out 50 years ago. After an intensive re-introduction program and environmental clean-up efforts, the species has rebounded and can once again be seen in much of its former southern Ontario range.	**Yes** Suitable habitat is present within the PSA and SPA within woodlands	**No** Bald Eagle not confirmed present in PSA or SPA

Taxonomy	Species	ESA Status	SARA Status	Preferred Habitat[1, 2]	Known Species Range[1, 2]	Habitat Presence in PSA	Species Confirmed Present in the PSA or SPA (See Figure # for confirmed species' locations)
Birds	Canada Warbler *Wilsonia canadensis*	SC	THR Schedule 1	The Canada Warbler breeds in a range of deciduous and coniferous, usually wet forest types, all with a well- developed, dense shrub layer. Dense shrub and understory vegetation help conceal Canada Warbler nests that are usually located on or near the ground on mossy logs or roots, along stream banks or on hummocks.	The Canada Warbler only breeds in North America and 80 per cent of its known breeding range is in Canada. Its primary breeding range is in the Boreal Shield, extending north into the Hudson Plains and south into the Mixedwood Plains. Although the Canada Warbler breeds at low densities across its range, in Ontario, it is most abundant along the Southern Shield.	**Yes** Suitable habitat is present within the PSA and SPA in wet woodlands with dense shrub layer	**No** Canada Warbler not confirmed present in PSA or SPA
Birds	Common Nighthawk *Chordeiles minor*	SC	THR Schedule 1	Traditional Common Nighthawk habitat consists of open areas with little to no ground vegetation, such as logged or burned-over areas, forest clearings, rock barrens, peat bogs, lakeshores, and mine tailings. Although the species also nests in cultivated fields, orchards, urban parks, mine tailings and along gravel roads and railways, they tend to occupy natural sites.	The range of the Common Nighthawk spans most of North and Central America. In Canada, the species is found in all provinces and territories except Nunavut. In Ontario, the Common Nighthawk occurs throughout the province except for the coastal regions of James Bay and Hudson Bay.	**Yes** Suitable habitat is present within the PSA and SPA within forest clearings, urban parks and cultivated fields	**No** Common Nighthawk not confirmed present in PSA or SPA
Birds	Golden-winged Warbler *Vermivora chrysoptera*	SC	THR Schedule 1	Golden-winged Warblers prefer to nest in areas with young shrubs surrounded by mature forest – locations that have recently been disturbed, such as field edges, hydro or utility right-of-ways, or logged areas.	In Ontario the Golden-winged Warbler breed in central-eastern Ontario, as far south as Lake Ontario and the St. Lawrence River, and as far north as the northern edge of Georgian Bay. Golden-winged Warblers have also been found in the Lake of the Woods area near the Manitoba border, and around Long Point on Lake Erie.	**Yes** Suitable habitat is present within the PSA and SPA near mature forests and field edges	**No** Golden-winged Warbler not confirmed present in PSA or SPA
Birds	Red-headed Woodpecker *Melanerpes erythrocephalus*	SC	THR Schedule 1	The Red-headed Woodpecker lives in open woodland and woodland edges, and is often found in parks, golf courses and cemeteries. These areas typically have many dead trees, which the bird uses for nesting and perching. This woodpecker regularly winters in the United States, moving to locations where it can find sufficient acorns and beechnuts to eat. A few of these birds will stay the winter in woodlands in southern Ontario if there are adequate supplies of nuts.	The Red-headed Woodpecker is found across southern Ontario, where it is widespread but rare. Outside Ontario, it lives in Alberta, Saskatchewan, Manitoba and Quebec, and is relatively common in the United States.	**Yes** Suitable habitat is present within the PSA and SPA within woodlands and woodland edges, parks and golf courses	**No** Red-headed Woodpecker not confirmed present in PSA or SPA
Birds	Wood Thrush *Hylocichla mustelina*	SC	THR Schedule 1	The Wood Thrush lives in mature deciduous and mixed (conifer-deciduous) forests. They seek moist stands of trees with well-developed undergrowth and tall trees for singing perches. These birds prefer large forests, but will also use smaller stands of trees. They build their nests in living saplings, trees or shrubs, usually in sugar maple or American beech.	The wood thrush is found all across southern Ontario. It is also found, but less common, along the north shore of Lake Huron, as far west as the southeastern tip of Lake Superior. There is a very small population near Lake of the Woods in northwestern Ontario, and there have been scattered sightings in the mixed forest of northern Ontario.	**Yes** Suitable habitat is present within the PSA and SPA in mature deciduous or mixed forests	**Yes** Wood Thrush confirmed in the mid-northern section of the PSA within forested habitat
Birds	Eastern Wood-Pewee *Contopus virens*	SC	SC Schedule 1	The Eastern Wood-pewee lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It is most abundant in intermediate-age mature forest stands with little understory vegetation.	The eastern wood-pewee is found across most of southern and central Ontario, and in northern Ontario as far north as Red Lake, Lake Nipigon and Timmins.	**Yes** Suitable habitat is present within the PSA and SPA within woodlands	**Yes** Eastern Wood-pewee confirmed in the PSA and SPA within various forested habitats

Taxonomy	Species	ESA Status	SARA Status	Preferred Habitat[1, 2]	Known Species Range[1, 2]	Habitat Presence in PSA	Species Confirmed Present in the PSA or SPA (See Figure # for confirmed species' locations)
Insects	Monarch *Danaus plexippus*	SC	SC Schedule 1	Throughout their life cycle, Monarchs use three different types of habitat. Only the caterpillars feed on milkweed plants and are confined to meadows and open areas where milkweed grows. Adult butterflies can be found in more diverse habitats where they feed on nectar from a variety of wildflowers.	The Monarch's range extends from Central America to southern Canada. In Canada, Monarchs are most abundant in southern Ontario and Quebec where milkweed plants and breeding habitat are widespread. During late summer and fall, Monarchs from Ontario migrate to central Mexico where they spend the winter months. During migration, groups of Monarchs numbering in the thousands can be seen along the north shores of Lake Ontario and Lake Erie.	**Yes** Suitable habitat is present within the PSA and SPA within meadows	**Yes** Monarch confirmed in the PSA and SPA close to or within various meadow habitats
Insects	West Virginia White *Pieris virginiensis*	SC	No Status	The West Virginia White is a small – three to four centimetre wingspan – dingy white butterfly. Its wings appear translucent and on the underside of the hind wing, the veins have grey-brown scaling. As a caterpillar, it is yellow-green with a green stripe along each side. The West Virginia White lives in moist, deciduous woodlots. This butterfly requires a supply of toothwort, a small, spring-blooming plant that is a member of the mustard family, since it is the only food source for larvae.	The majority of sites in the province are in central and southern Ontario, but it also extends north to Manitoulin and St. Joseph islands. The largest populations are in the western Lake Ontario region.	**Yes** Suitable habitat is present within the PSA and SPA within deciduous woodlands	**No** West Virginia White not confirmed present in PSA or SPA

Glossary

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THR	ESA - Threatened - a species that is at risk of becoming endangered in Ontario if limiting factors are not reversed. SARA - Threatened - a wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.
SC	ESA - Special Concern (formerly Vulnerable) - a species with characteristics that make it sensitive to human activities or natural events. SARA - Special Concern - a wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.
MNRF	Ontario Ministry of Natural Resources and Forestry
ESA	Endangered Species Act
SARA	Species at Risk Act (Federal)
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Schedule 3	Species listed in Schedule 3 are species that had been designated as special concern, and have yet to be re-assessed by COSEWIC using revised criteria. Once these species have been re-assessed, they may be considered for inclusion in Schedule 1.

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1 Species at Risk. Ontario Ministry of Natural Resources and Forestry. http://www.mnr.gov.on.ca/en/Business/Species/index.html. © Queens Printer for Ontario, 2013.
2 Species at Risk Status Reports. Committed on the Status of Endangered Wildlife in Canada. Ottawa. http://www.sararegistry.gc.ca/search/advSearchResults_e.cfm?stype=doc&docID=18.
3 Ontario Nature, Midland Painted turtle page. https://ontarionature.org/programs/citizen-science/reptile-amphibian-atlas/midland-painted-turtle/ <last accessed Aug. 27, 2018>
4 Wikipedia, Painted turtle page. https://en.wikipedia.org/wiki/Painted_turtle#Range <last accessed Aug. 27, 2018>

Links http://www.ontarionature.org/dynamic-maps/dynamic-maps/
http://www.ontarioinsects.org/atlas_online.htm

Appendix G4

Clair-Maltby Secondary Plan Area Significant Wildlife Habitat (SWH) Screening

Appendix G4

Clair-Maltby Secondary Plan Area Significant Wildlife Habitat (SWH) Screening

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Secondary Plan Area (SPA) and Primary Study Area (PSA)**	Assessed SWH Status in the SPA
Seasonal Concentration Areas				
1. Waterfowl Stopover and Staging Areas (Terrestrial)				
American Black Duck Wood Duck Mallard Northern Pintail Gadwall Blue-winged Teal Green-winged Teal American Wigeon Northern Shoveler	CUM1 CUT1 Plus evidence of annual spring flooding from malt water or run-off within these Ecosites.	*Suitable Habitat* • Fields with sheet water during Spring (mid-March to May) *Suggested Criteria* Studies carried out and verified presence of an annual concentration of any listed species	No suitable habitat identified in the SPA or PSA, and none would be expected to occur.	**Not Applicable**
2. Waterfowl Stopover and Staging Areas (Aquatic)				
Canada Goose Cackling Goose Snow Goose American Black Duck Northern Pintail Northern Shoveler American Wigeon Gadwall Green-winged Teal Blue-winged Teal Hooded Merganser Common Merganser Lesser Scaup Greater Scaup Long-tailed duck Surf Scoter White-winged Scoter Black Scoter Ring-necked duck Common Goldeneye Bufflehead Redhead Ruddy Duck Red-breasted Merganser Brant Canvasback	MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7	*Suitable Habitat* • Ponds, marshes, lakes, bays, coastal inlets, and watercourses used during migration • Sewage treatment ponds and storm water ponds do not qualify as SWH, however a reservoir managed as a large wetland or pond/lake does qualify • These habitats have an abundant food supply (mostly aquatic invertebrates and vegetation in shallow water) *Suggested Criteria* Studies carried out and verified presence of: • Aggregations of 100 or more of listed species for 7 days, results in > 700 waterfowl use days • Areas with annual staging of ruddy ducks, canvasbacks, and redheads are SWH • Wetland area and shorelines associated with sites identified within the Significant Wildlife Habitat Technical Guide (SWHTG) (MNRF 2000) Appendix K are SWH	All marshes with open water (where incidental observations of migratory waterfowl have been recorded) that could potentially support the required aggregations to be considered Confirmed SWH in the SPA are considered suitable habitat, and have been mapped as Candidate SWH. Specific studies for this category of SWH were not conducted as part of the Clair Maltby Secondary Plan. Site specific study may be required where suitable habitat exists to confirm the status of this SWH type.	**Candidate SWH is mapped (ref. Map NH-6)**
3. Shorebird Migratory Stopover Area				
Greater Yellowlegs Lesser Yellowlegs Marbled Godwit Hudsonian Godwit Black-bellied Plover American Golden-Plover Semipalmated Plover	BBO1 BBO2 BBS1 BBS2 BBT1 BBT2 SDO1	*Suitable Habitat* • Shorelines of lakes, rivers and wetlands, including beach areas, bars and seasonally flooded, muddy and un-vegetated shoreline habitats • Great Lakes coastal shorelines, including groynes and other forms of armour rock lakeshores, are extremely important for migratory shorebirds in May to mid-June and early July to October. Sewage treatment ponds and storm water ponds do not qualify as a SWH	No suitable habitat identified in the SPA or PSA, and none would be expected to occur.	**Not Applicable**

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Secondary Plan Area (SPA) and Primary Study Area (PSA)**	Assessed SWH Status in the SPA
Solitary Sandpiper Spotted Sandpiper Semipalmated Sandpiper Pectoral Sandpiper White-rumped Sandpiper Baird's Sandpiper Least Sandpiper Purple Sandpiper Stilt Sandpiper Short-billed Dowitcher Red-necked Phalarope Whimbrel Ruddy Turnstone Sanderling Dunlin	SDS2 SDT1 MAM1 MAM2 MAM3 MAM4 MAM5	*Suggested Criteria* • Presence of 3 or more of listed species and > 1000 shorebird use days during spring or fall migration period (shorebird use days are the accumulated number of shorebirds counted per day over the course of the fall or spring migration period) • Whimbrel stop briefly (<24hrs) during spring migration, any site with >100 Whimbrel used for 3 years or more is significant • The area of significant shorebird habitat includes the mapped ELC shoreline ecosites plus a 100 m radius area		
4. Raptor Wintering Area				
Rough-legged Hawk Red-tailed Hawk Northern Harrier American Kestrel Snowy Owl Short-eared Owl Bald Eagle	<u>Hawks/Owls:</u> Combination of ELC Community Series; need to have present one Community Series from each land class; Forest: FOD, FOM, FOC. Upland: CUM, CUT, CUS, CUW. <u>Bald Eagle:</u> Forest Community Series: FOD, FOM, FOC, SWD, SWM, or SWC on shoreline areas adjacent to large rivers to adjacent to lakes with open water (hunting area).	*Suitable Habitat* • The habitat provides a combination of fields and woodlands that provide roosting, foraging and resting habitats for wintering raptors • Raptor wintering (hawk/owl) sites need to be > 20 ha with a combination of forest and upland *Suggested Criteria* Studies confirm the use of these habitats by: • One or more Short-eared Owls or; One of more Bald Eagles or at least 10 individuals and two listed hawk/owl species • To be significant a site must be used regularly (3 in 5 years) for a minimum of 20 days by the above number of birds • The habitat area for an Eagle winter site is the shoreline forest ecosites directly adjacent to the prime hunting area	Suitable habitat is present within the PSA but was not field verified as part of the Clair Maltby Secondary Plan project. Two listed species (Red-tailed Hawk and Northern Harrier) have been confirmed in the PSA. However, observations were not in adequate numbers or frequency to meet the suggested criteria. • Northern Harrier was observed in the PSA 2006 on the 385 Maltby Rd W lands (i.e., the Southgate Business Park) (NRSI 2007); • Red-tailed Hawk was observed once incidentally during the field surveys conducted by Beacon in the spring of 2017 at 2162 Gordon Street. It was also noted previously as potentially or confirmed breeding within the PSA at: 424 Maltby Road (Dance Environmental Inc. 2014), 1897 Gordon Street (Aboud and Associates Inc. 2010), Westminster Woods East EIS (NSEI 2001) and the 385 Maltby Rd W lands (i.e., the Southgate Business Park) (NRSI 2007). A Red-Tailed Hawk nest with fledged young was confirmed at 424 Maltby Road (Dance Environmental Inc. 2014) in the PSA. Site-specific study will be needed to capture the best and most representative area(s) in the SPA, assuming more than one of the candidate areas meets the established criteria.	**Several Candidate SWH areas are shown approximately (ref. Map NH-6) with an asterisk but remain to be confirmed**
5. Bat Hibernacula				
Big Brown Bat Tri-colored Bat	Bat Hibernacula may be in the Ecosites: CCR1 CCR2 CCA1 CCA2	*Suitable Habitat* • Hibernacula may be found in caves, mine shafts, underground foundations and Karsts *Suggested Criteria* • All sites with confirmed hibernating bats are SWH • The area includes 200m radius around the entrance of the hibernaculum for most development types and for wind farms (Note: buildings are not to be considered SWH)	No suitable habitat identified in the SPA or PSA, and none would be expected to occur.	**Not Applicable**
6. Bat Maternity Colonies				
Big Brown Bat Silver-haired Bat	Maternity Colonies considered for SWH are found in forested Ecosites.	*Suitable Habitat* • Maternity colonies can be found in tree cavities, vegetation and often in buildings (buildings are not considered to be SWH)	All deciduous forest (FO-) and swamp (SW-) communities in the SPA are considered suitable habitat and have been mapped as Candidate SWH.	**Candidate SWH is mapped (ref. Map NH-6)**

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Secondary Plan Area (SPA) and Primary Study Area (PSA)**	Assessed SWH Status in the SPA
	All ELC Ecosites in ELC Community Series: FOD FOM SWD SWM	• Maternity colonies located in mature deciduous or mixed forest stands with >10/ha large diameter (>25cm dbh) wildlife trees • Female bats prefer wildlife tree (snags) in early stages of decay, class 1-3 or class 1 or 2 • Silver-haired Bats prefer older mixed or deciduous forest and form maternity colonies in tree cavities and small hollows. Older forest areas with at least 21 snags/ha are preferred *Suggested Criteria* • Maternity colonies with confirmed use by; – >10 Big Brown Bats – >5 Adult Female Silver-haired Bats The area of the habitat includes the entire woodland or the forest stand ELC ecosite or an ecoelement containing the maternity colonies	Specific studies for this category of SWH were not conducted as part of the Clair Maltby Secondary Plan project, and have not been done for any other studies in the SPA or PSA, except for one EIS south of Maltby Road (424 Maltby Road West). Site specific study may be required where suitable habitat exists to confirm the status of this SWH type.	
7. Turtle Wintering Areas				
Midland Painted Turtle Northern Map Turtle Snapping Turtle	Snapping and Midland Painted Turtles: ELC Community Classes; SW, MA, OA and SA, ELC Community Series; FEO and BOO. Northern Map Turtles: Open Water areas such as deeper rivers, or streams and lakes with current can also be used as over-wintering habitat.	*Suitable Habitat* • For most turtles, wintering areas are in the same general area as their core habitat. Water has to be deep enough not to freeze and have soft mud substrates • Over-wintering sites are permanent water bodies, large wetlands, and bogs or fens with adequate Dissolved Oxygen • Man-made ponds such as sewage lagoons or storm water ponds should not be considered SWH *Suggested Criteria* • Presence of 5 over-wintering Midland Painted Turtles is significant • One or more Northern Map Turtle or Snapping Turtle over-wintering within a wetland is significant • The mapped ELC ecosite area with the over wintering turtles is the SWH • If the hibernation site is within a stream or river, the deep-water pool where the turtles are over wintering is the SWH	Midland Painted Turtles and Snapping Turtles have been documented in ponds throughout the SPA and PSA. Not all ponds were assessed as part of the Clair-Maltby Secondary Plan study. Suitable habitat for wintering is presumed to be present within the PSA and SPA in ponds where these turtles have been observed. Confirmed SWH was mapped for ponds where at least five Painted Turtles and/or at least one Snapping Turtle were documented in 2017. Candidate SWH includes other wetlands or ponds with permanent open water in the SPA. Site specific investigation may be required where ponds have not been assessed as part of this study or to confirm the status of this SWH type in the future where it has been previously confirmed.	**Candidate and Confirmed SWH are mapped (ref. Map NH-6)**
8. Reptile Hibernaculum				
Eastern Gartersnake Northern Water Snake Northern Red-bellied Snake Northern Brownsnake Smooth Green Snake Northern Ring-necked Snake Milksnake Eastern Ribbonsnake Five-lined Skink	For all snakes, habitat may be found in any ecosite other than very wet ones. Talus, Tock Barren, Crevice, Cave and Alvar may be directly related to these habitats. Observations or congregations of snakes on sunny warm days in the spring or fall is a good indicator. For Five-lined Skink, ELC Community Series of FOD and FOM and ecosite: FOC1 and FOC3.	*Suitable Habitat* • For snakes, hibernation takes place in sites located below frost lines in burrows, rock crevices and other natural locations • The existence of features that go below frost line; such as rock piles or slopes, old stone fences, and abandoned crumbling foundations assist in identifying Candidate SWH • Areas of broken and fissured rock are particularly valuable since they provide access to subterranean sites below the frost • Wetlands can also be important over-wintering habitat in conifer or shrub swamps and swales, poor fens, or depressions in bedrock terrain with sparse trees or shrubs with sphagnum moss or sedge hummock ground cover • For five-lined Skink, Community Series FOD and FOM, and FOC1 and FOC3 should be considered. They prefer mixed forests with rock outcrop openings with cover rock overlaying granite bedrock with fissures *Suggested Criteria* Studies confirming: • Presence of snake hibernacula used by a minimum of five individuals of a snake sp. or; individuals of two or more snake spp. • Congregations of a minimum of five individuals of a snake sp. or; individuals of two or more snake spp. near potential hibernacula (e.g., foundation or rocky slope) on sunny warm days in spring	Suitable habitat may be present within the SPA and PSA in sites such as animal burrows, old housing foundation and wetlands that go below the frost line, but was not field verified as part of the Clair Maltby Secondary Plan studies. A number of individual listed snake species (i.e., Northern Water Snake, Northern Brownsnake, Eastern Ribbonsnake, Northern Red-bellied Snake and Eastern Gartersnake) have been documented, but no concentrations (i.e., >5 individuals) of reptiles were recorded within the PSA or SPA. Site specific study may be required where suitable habitat exists to confirm the status of this SWH type.	**This type of SWH may occur but has not been mapped**
9. Colonially-Nesting Bird Breeding Habitat (Bank and Cliff)				
Cliff Swallow Northern Rough-winged Swallow (this species is not colonial but can be found in Cliff Swallow colonies)	Eroding banks, sandy hills, steep slopes and sand piles. Cliff faces, bridge abutments, silos and barns. Habitat found in the following ecosites:	*Suitable Habitat* • Any site or areas with exposed soil banks, undisturbed or naturally eroding that is not a licensed/permitted aggregate area • Does not include man-made structures (bridges or buildings) or recently (2 years) disturbed soil areas, such as berms, embankments, soil or aggregate stockpiles • Does not include a licensed/permitted Mineral Aggregate Operation	No suitable habitat identified in the SPA or PSA, and none would be expected to occur.	**Not Applicable**

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Secondary Plan Area (SPA) and Primary Study Area (PSA)**	Assessed SWH Status in the SPA
	CUM1 CLO1 CUT1 CLS1 CUS1 CLT1 BLO1 BLS1 BLT1	*Suggested Criteria* Studies confirming: • Presence of 1 or more nesting sites with 8 or more cliff swallow pairs or 50 Bank Swallow and/or Rough-winged Swallow pairs during the breeding season A colony identified as SWH will include a 50m radius habitat area from the peripheral nests		
10. Colonially-Nesting Bird Breeding Habitat (Tree/Shrubs)				
Great Blue Heron Black-crowned Night-Heron Great Egret Green Heron	SWM2 SWM3 SWM5 SWM6 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7 FET1	*Suitable Habitat* • Nests in live or dead standing trees in wetlands, lakes, islands, and peninsulas. Shrubs and occasionally emergent vegetation may also be used • Most nests in trees are 11 to 15 m from ground, near the top of the tree *Suggested Criteria* Studies confirming: • Presence of 2 or more active nests of Great Blue Heron or other listed species • The habitat extends from the edge of the colony and a minimum 300m radius or extent of the forest ecosite containing the colony or any island <15.0 ha with a colony is the SWH	Suitable habitat may be present within the PSA in treed wetlands/ponds. Great-blue Heron was observed during the 2017 breeding bird season in flying over Breeding Bird Station 4 (ref. **Map NH-2**) and within the large wetland on 2162 Gordon Street Property (by Breeding Bird Station 13, ref. **Map NH-2**), but nests were not found. Site specific study may be required where suitable habitat exists to confirm the status of this SWH type.	**This type of SWH may occur but has not been mapped**
11. Colonially-Nesting Bird Breeding Habitat (Ground)				
Herring Gull Great Black-backed Gull Little Gull Ring-billed Gull Common Tern Caspian Tern Brewer's Blackbird	Any rocky island to peninsula (natural or artificial) with a lake or larger river. Close proximity or watercourses in open fields or pastures with scattered trees or shrubs (Brewer's Blackbird). MAM1-6 MAS1-3 CUM CUT CUS	*Suitable Habitat* • Nesting colonies of gulls and terns are on islands or peninsulas associated with open water or in marshy areas • Brewers Blackbird colonies are found loosely on the ground in or in low bushes in close proximity to streams and irrigation ditches within farmlands *Suggested Criteria* Studies confirming: • Presence of >25 active nests for Herring Gulls or Ring-billed Gulls, >5 active nests for Common Tern or >2 active nests for Caspian Tern • Any active nesting colony of one or more Little Gull, and Great Black-backed Gull is significant • Presence of 5 or more pairs for Brewer's Blackbird • The edge of the colony and a minimum 150m area of habitat, or the extent of the ELC ecosites containing the colony or any island <3.0ha with a colony is the SWH	No suitable habitat identified in the SPA or PSA, and none would be expected to occur.	**Not Applicable**
12. Migratory Butterfly Stopover Areas				
Painted Lady Red Admiral Monarch	Combination of ELC Community Series; need to have present one Community Series from each land class: <u>Field:</u> CUM CUT CUS <u>Forest:</u> FOC FOD COM CUP	*Suitable Habitat* • A butterfly stopover area will be a minimum of 10 ha in size with a combination of field and forest habitat present, and will be located within 5 km of Lake Ontario or Lake Erie • The habitat is typically a combination of field and forest, and provides the butterflies with a location to rest prior to their long migration south • The habitat should not be disturbed, fields/meadows with an abundance of preferred nectar plants and woodland edge providing shelter are requirements for this habitat • Staging areas usually provide protection from the elements and are often spits of land or areas with the shortest *Suggested Criteria* Studies confirm: • The presence of Monarch Use Days (MUD) during fall migration (Aug/Oct). MUD is based on the number of days a site is used by Monarchs, multiplied by the number of individuals using the site. • Numbers of butterflies can range from 100-500/day - significant variation can occur between years and multiple years of sampling should occur	Suitable habitat not identified in the SPA or PSA due to its distance from Lake Ontario and Lake Erie.	**Not Applicable**

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Secondary Plan Area (SPA) and Primary Study Area (PSA)**	Assessed SWH Status in the SPA
	A candidate site will have a history of butterflies being observed.	• MUD of >5000 or >3000 with the presence of Painted Ladies or Red Admirals is to be considered significant		
13. Landbird Migratory Stopover Areas				
All migratory songbirds	All Ecosites associated with the ELC Community Series; FOC FOM FOD SWC SWM SWD	*Suitable Habitat* • Woodlots >10 ha in size and within 5 km of Lake Ontario and Lake Erie • If multiple woodlands are located along the shoreline those Woodlands <2 km from Lake Erie or Ontario are more significant • Sites have a variety of habitats; forest, grassland and wetland complexes • The largest sites are more significant • Woodlots and forest fragments are important habitats to migrating birds, these features located along the shore and located within 5km of Lake Ontario are Candidate SWH *Suggested Criteria* Studies confirm: • Use of the woodlot by >200 birds/day and with >35 species with at least 10 bird spp. recorded on at least 5 different survey dates • This abundance and diversity of migrant bird species is considered above average and significant	No suitable habitat identified in the SPA or PSA due to its distance from Lake Ontario and Lake Erie.	**Not Applicable**
14. Deer Yarding Areas				
White-tailed Deer	*Note: MNRF to determine this habitat.* ELC Community Series providing a thermal cover component for a deer yard would include: FOD, FOC, SWM and SWC. Or ELC Ecosites: CUP2, CUP3, FOD3 and CUT	*Suitable Habitat* • Deer yarding areas or winter concentration areas (yards) are areas deer move to in response to the onset of winter snow and cold. Deer establish traditional use areas with two areas called Stratum I and Stratum II • Stratum II covers entire winter yard and is usually in FOD or FOM (or agricultural lands) where browsing can occur. Deer move here in early winter, and will continue to stay here until snow depths reach about 30 cm. • Stratum I is the core of a deer yard, and is found within the Stratum II, and is critical for deer survival in areas where winter is severe. It is primarily coniferous trees with a canopy cover of at least 60% *Suggested Criteria* Studies confirm: • Snow depth and temperature or the greatest influence on deer use of winter yards. Snow depths of >40 cm for more than 60 days are minimum criteria for a deer yard to be considered as SWH • Deer management is an MNRF responsibility, and they field investigations (by aircraft over a series of winters to establish boundaries of Stratum I and II. Deer yarding areas considered significant will be mapped by MNRF • If SWH is determined for deer wintering area or if a proposed development is within Stratum II yard areas, then movement corridors are to be considered	No suitable habitat identified in the SPA or PSA by MNRF.	**Not Applicable**
15. Deer Winter Congregation Areas				
White-tailed Deer	All Forested Ecosites with these ELC Community Series: FOC FOM FOD SWC SWM SWD Conifer Plantations much smaller than 50 ha may also be used.	*Suitable Habitat* • Woodlots >100 ha in size. Woodlots <100 ha may be considered significant based on MNRF studies or assessment • Deer movement during winter in Ecoregion 6E are not constrained by snow depth, however deer will annually congregate in large numbers in suitable woodlands • Large woodlots > 100 ha and up to 1500 ha are known to be used annually by densities of deer that range from 0.1-1.5 deer/ha • Woodlots with high densities of deer due to artificial feeding are not significant *Suggested Criteria*	No suitable habitat identified in the SPA or PSA by MNRF, nor was suitable habitat identified in the SPA through the Clair Maltby Secondary Plan project. The Environmental Assessment for Gordon Road (Totten Sims Hubicki Associates 1998) stated that wintering areas for White-tailed Deer were found in Hall's Pond Wetland/ESA and Mill Creek Swamp Wetland. However, no woodlands in the SPA meet the established size criteria. Site specific study may be required where suitable habitat exists to confirm the status of this SWH type.	**This type of SWH may occur but has not been mapped**

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Secondary Plan Area (SPA) and Primary Study Area (PSA)**	Assessed SWH Status in the SPA
		Studies confirm: • Deer management is an MNRF responsibility, deer winter congregation areas considered significant will be mapped by MNRF • Use of the woodlot by white-tailed deer will be determined by MNRF, all woodlots exceeding the area criteria are significant, unless determined not to be significant by MNRF • If SWH is determined for deer wintering area or if a proposed development is within Stratum II yard areas, then movement corridors are to be considered		
Rare Vegetation Communities				
16. Cliffs and Talus Slopes				
ELC Communities: TAO, TAS, TAT, CLO, CLS, CLT		• A Cliff is vertical to near vertical bedrock >3m in height • A Talus Slope is rock rubble at the base of a cliff made up of coarse rocky debris • Most cliff and talus slopes occur along the Niagara Escarpment	No suitable habitat identified in the SPA or PSA, and none would be expected to occur.	**Not Applicable**
17. Sand Barren				
ELC Communities: SBO1, SBS1, BT1		• Sand Barrens typically are exposed sand, generally sparsely vegetated and caused by lack of moisture, periodic fires and erosion • Usually located within other types of natural habitat such as forest or savannah • Vegetation can vary from patchy and barren to tree covered but less than 60% *Suggested Criteria* • A sand barren area >0.5ha in size • Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics).	No suitable habitat identified in the SPA or PSA, and none would be expected to occur.	**Not Applicable**
18. Alvar				
Field studies identify four of the five Alvar indicator species within ELC communities: ALO1, ALS, ALT1, FOC1, FOC2, CUM2, CUS2, CUT2-1, CUW2		• An alvar is typically a level, mostly unfractured calcareous bedrock feature with a mosaic of rock pavements and bedrock overlain by a thin veneer of soil • The hydrology of alvars is complex, with alternating periods of inundation and drought • Vegetation cover varies from sparse lichen-moss associations to grasslands and shrublands and comprising a number of characteristic or indicator plant • Undisturbed alvars can be phyto- and zoogeographically diverse, supporting many uncommon or are relict plant and animal species • Vegetation cover varies from patchy to barren with a less than 60% tree cover *Suggested Criteria* • An Alvar site > 0.5 ha in size • Five indicator species specific to alvars within Ecoregion 6E: *1) Carex crawei 2) Panicum philadelphicum 3) Eleocharis compressa 4) Scutellaria parvula 5) Trichostema brachiatum* • Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics) • The Alvar must be in excellent condition and fit in with surrounding landscape with few conflicting land uses	No suitable habitat identified in the SPA or PSA, and none would be expected to occur.	**Not Applicable**
19. Old Growth Forest				
ELC Communities: FOD FOC FOM SWD SWC SWM		• Old-growth forests are characterized by heavy mortality or turnover of over-storey trees resulting in a mosaic of gaps that encourage development of a multi-layered canopy and an abundance of snags and downed woody debris *Suggested Criteria* • Woodland area is >30 ha with at least 10 ha of interior habitat • If dominant trees species of the ecosite are >140 years old, then stand is SWH • The forested area containing the old growth characteristics will have experienced no recognizable forestry activities (cut stumps will not be present) • The area of forest ecosites combined or an eco-element within an ecosite that contain the old growth characteristics is the SWH	No suitable habitat identified in the SPA or PSA, and none would be expected to occur.	**Not Applicable**

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Secondary Plan Area (SPA) and Primary Study Area (PSA)**	Assessed SWH Status in the SPA
20. Savannah				
ELC Communities: TPS1 TPS2 TPW1 TPW2 CUS2		• A Savannah is a tallgrass prairie habitat that has tree cover between 25 – 60% *Suggested Criteria* • No minimum size to site. Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH • Field studies confirm one or more of the Prairie indicator species listed in Appendix N should be present. Note: Savannah plant spp. list from Ecoregion 6E should be used • Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics)	No suitable habitat identified in the SPA or PSA, and none would be expected to occur.	**Not Applicable**
21. Tallgrass Prairie				
ELC Communities: TPO1 TPO2		• A Tallgrass Prairie has ground cover dominated by prairie grasses. An open Tallgrass Prairie habitat has < 25% tree cover • In ecoregion 6E, known Tallgrass Prairie and savannah remnants are scattered between Lake Huron and Lake Erie, near Lake St. Clair, north of and along the Lake Erie shoreline, in Brantford and in the Toronto area (north of Lake Ontario) *Suggested Criteria* • No minimum size to site. Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH • ELC communities TPO1, TPO2 • Field studies confirm one or more of the Prairie indicator species listed in Appendix N in SWHTG (MNRF 2000) should be present. Prairie plant spp. list from Ecoregion 6E should be used • Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics)	No suitable habitat identified in the SPA or PSA, and none would be expected to occur.	**Not Applicable**
22. Other Rare Vegetation Communities				
		• Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of the SWHTG (MNRF 2000) • Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps • ELC Ecosite codes that have the potential to be a rare ELC Vegetation Type as outlined in SWHTG (MNRF 2000) Appendix M • The MNRF/NHIC will have up to date listing for rare vegetation communities	In 2006, NRSI identified a small Buttonbush Mineral Deciduous Thicket Swamp Type (SWT3-4) community within the southwestern PSA, which is considered rare in Ontario (with an S-rank of S3). Additional provincially rare communities may be identified through site specific study.	**One Confirmed SWH is mapped (ref. Map NH-6); other rare communities may be identified**
Specialized Habitat for Species				
23. Waterfowl Nesting Area				
American Black Duck Northern Pintail Northern Shoveler Gadwall Blue-winged Teal Green-winged Teal Wood Duck Hooded Merganser Mallard	All upland habitats located adjacent to these wetland ELC Ecosites are Candidate SWH: MAS1, MAS2, MAS3 SAS1, SAM1, SAF1 MAM1, MAM2, MAM3, MAM4, MAM5, MAM6 SWT1, SWT2, SWD1, SWD2, SWD3, SWD4 Note: Includes adjacency to Provincially Significant Wetlands	*Suitable Habitat* • A waterfowl nesting area extends 120 m from a wetland (> 0.5 ha) or a wetland (>0.5 ha) with small wetlands (<0.5ha) within 120m or a cluster of 3 or more small (<0.5 ha) wetlands within 120 m of each individual wetland where waterfowl nesting is known to occur • Upland areas should be at least 120m wide so that predators such as racoons, skunks, and foxes have difficulty finding nests *Suggested Criteria* Studies confirm: • Presence of 3 or more nesting pairs for listed species excluding Mallards, or presence of 10 or more nesting pairs for listed species including Mallards • Any active nesting site of an American Black Duck is considered significant • Wood Ducks and Hooded Mergansers utilize large diameter trees (>40 cm dbh) in woodlands for cavity nest sites	Suitable habitat may be present within the SPA and/or PSA in the vicinity of ponds, but surveys conducted as part of the Clair-Maltby Secondary Plan studies did not document adequate numbers of listed species. Site specific study may be required where suitable habitat exists to confirm the status of this SWH type.	**This type of SWH may occur but has not been mapped**

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Secondary Plan Area (SPA) and Primary Study Area (PSA)**	Assessed SWH Status in the SPA
24. Bald Eagle and Osprey Nesting, Foraging and Perching Habitat				
Osprey Bald Eagle	ELC Forest Community Series: FOD, FOM, FOC, SWD, SWM, SWC directly adjacent to riparian areas - rivers, lakes, ponds and wetlands.	*Suitable Habitat* • Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands, or on structures over water • Osprey nests are usually at the top a tree whereas Bald Eagle nests are typically in super canopy trees in a notch within the tree's canopy • Nests located on man-made objects are not to be included as SWH (e.g. telephone poles and constructed nesting platforms) *Suggested Criteria Studies confirm the use of these nests by:* • One or more active Osprey or Bald Eagle nests in an area • Some species have more than one nest in a given area and priority is given to the primary nest with alternate nests included within the area of the SWH • For an Osprey, the active nest and a 300 m radius around the nest or the contiguous woodland stand is the SWH [ccvii], maintaining undisturbed shorelines with large trees within this area is important • For a Bald Eagle the active nest and a 400-800 m radius around the nest is the SWH. Area of the habitat from 400-800m is dependent on site lines from the nest to the development and inclusion of perching and foraging habitat • To be significant a site must be used annually. When found inactive, the site must be known to be inactive for >3 years or suspected of not being used for >5 years before being considered not significant	Suitable habitat is present within the PSA and SPA in the vicinity of ponds and wetlands. No evidence for Bald Eagle was noted during field studies in 2017 or in previous studies in the PSA. One active Osprey nest was located on a lighting post by the baseball diamonds in the northwestern PSA in 2017. This nest is on a man-made structure, so it is not SWH. The area around the nest provides foraging and perching habitat. Other supplemental data suggests Osprey are located in the PSA and SPA. Site specific study may be required where suitable habitat exists to confirm the status of this SWH type.	**This type of SWH may occur but has not been mapped**
25. Woodland Raptor Nesting Habitat				
Northern Goshawk Cooper's Hawk Sharp-shinned Hawk Red-shouldered Hawk Barred Owl Broad-winged Hawk	May be found in all forested ELC Ecosites. May also be found in: SWC SWM SWD CUP3	*Suitable Habitat* • All natural or conifer plantation woodland/forest stands combined >30ha or with >4 ha of interior habitat; interior habitat determined with a 200 m buffer • Stick nests found in a variety of intermediate-aged to mature conifer, deciduous or mixed forests within tops or crotches of trees. Species such as Coopers hawk nest along forest edges sometimes on peninsulas or small off-shore island • In disturbed sites, nests may be used again, or a new nest will be in close proximity to old nest *Suggested Criteria* Studies confirm: • Presence of 1 or more active nests from species list is considered significant • Red-shouldered Hawk and Northern Goshawk – a 400m radius around the nest or 28 ha of suitable habitat is the SWH. (the 28 ha habitat area would be applied where optimal habitat is irregularly shaped around the nest) • Barred Owl – a 200m radius around the nest is the SWH • Broad-winged Hawk and Coopers Hawk,– a 100m radius around the nest is the SWH • Sharp-Shinned Hawk – a 50m radius around the nest is the SWH	No suitable habitat has been identified in the SPA or PSA due to the lack of interior forest, although a few of the listed species may occur.	**Not Applicable**
26. Turtle Nesting Areas				
Midland Painted Turtle Northern Map Turtle Snapping Turtle	Exposed mineral soil (sand or gravel) areas adjacent (<100 m) to within the following Ecosites: MAS1 MAS2 MAS3 SAS1 SAM1 SAF1	*Suitable Habitat* • Best nesting habitat for turtles are close to water and away from roads and sites less prone to loss of eggs by predation from skunks, raccoons or other animals • For an area to function as a turtle-nesting area, it must provide sand and gravel that turtles are able to dig in and are located in open, sunny areas • Nesting areas on the sides of municipal or provincial road embankments and shoulders are not SWH	Potential suitable habitat is present within the PSA and SPA in areas surrounding marshes and open aquatic ecosites, particularly adjacent to ponds where Midland Painted Turtles and /or Snapping Turtle have been documented (see SWH Type #7)**.** Two Snapping Turtle nests were documented in the vicinity of the Neumann Pond (Basking Turtle Monitoring Station T1, ref. **Map NH-2**) but the locations are unknown (North-South Environmental Inc. 2015). Snapping Turtle was also observed nesting within areas of marshes	**This type of SWH occurs and is to be mapped through site-specific study**

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	BOO1 FEO1	• Sand and gravel beaches adjacent to undisturbed shallow weedy areas of marshes, lakes, and rivers are most frequently used *Suggested Criteria* Studies confirm: • Presence of 5 or more nesting Midland Painted Turtles • One or more Northern Map Turtle or Snapping Turtle nesting • The area or collection of sites within an area of exposed mineral soils where the turtles nest, plus a radius of 30-100m around the nesting area dependant on slope, riparian vegetation and adjacent land use is the SWH • Travel routes from wetland to nesting area are to be considered within the SWH	located in the northern central PSA in the vicinity of Dallan Drive. North-South Environmental (2016) noted Snapping Turtle basking and nesting close to the SWM Pond and wetland just east of Hawkins Drive, while Stantec (2007) observed nesting Snapping Turtle in a wetland south of Dallan Drive within the SPA. Additional turtle nesting areas may be identified through site specific study, and may be confirmed as SWH.	
27. Seeps and Springs				
Wild Turkey Ruffed Grouse Spruce Grouse White-tailed Deer Salamander spp.	Seeps and springs are areas where ground water comes to the surface. Often, they are found within headwater areas within forested habitats. Any forested Ecosite within headwater areas of a stream could have seeps/springs.	*Suitable Habitat* • Any forested area (with <25% meadow/field/pasture) within the headwaters of a stream or river system (could contain a seep or spring - areas where ground water comes to the surface) • Seeps and springs are important feeding and drinking areas especially in the winter will typically support a variety of plant and animal species • The protection of the recharge area considering the slope, vegetation, height of trees and groundwater condition need to be considered in delineation the habitat *Suggested Criteria* Studies confirm: • Presence of a site with 2 or more seeps/springs should be considered SWH • The area of an ELC forest ecosite containing the seeps/springs is the SWH	Suitable habitat occurs within the PSA and SPA. One seep was by Beacon in 2017 within the SPA on the 2162 Gordon Street property. Additional seepage areas may be identified through site specific study, and may be confirmed as SWH.	**One Confirmed SWH is mapped (ref. Map NH-6); additional seeps or springs may occur**
28. Amphibian Breeding Habitat (Woodland)				
Eastern Newt Blue-spotted Salamander Spotted Salamander Gray Treefrog Spring Peeper Western Chorus Frog Wood Frog	All Ecosites associated within these ELC Community Series: FOC, FOM, FOD, SWC, SWM, SWD Breeding pools within the woodland or the shortest distance from the forest habitat are more significant because they are more likely to be used due to reduced risk to migrating amphibians.	*Suitable Habitat* • Presence of a wetland, pond, or woodland pool within or adjacent (within 120m) to a woodland (no minimum size) • Some small wetlands may not be mapped and may be important breeding pools for amphibians • Woodlands with permanent ponds or those containing water in most years until mid-July are more likely to be used as breeding habitat *Suggested Criteria* Studies confirm: Presence of breeding population of 1 or more of the listed salamander species or 2 or more of the listed frog species with at least 20 individuals (adults, juveniles, eggs/larval masses) or 2 or more of the listed frog species with Call Level Codes of 3	Suitable habitat occurs within wetlands in the SPA and PSA, and as documented in the amphibian surveys over 2017, these areas support very healthy levels of Spring Peepers, Gray Treefrogs and Wood Frogs with Eastern Newt, Blue-spotted Salamander and Western Chorus Frog documented in the area as well. All wetlands greater than 500 m^2 located in, or within 120 m of, a woodland (i.e., FOC, FOD or FOM) or swamp in the SPA have been identified as Candidate SWH for this category. Wetlands meeting the suggested criteria based on data collected in 2017 have been identified as Confirmed SWH for this category. Candidate areas should be verified through site-specific study.	**Candidate and Confirmed SWH is mapped (ref. Map NH-6)**
29. Amphibian Breeding Habitat (Wetland)				
Eastern Newt American Toad Spotted Salamander Four-toed Salamander Blue-spotted Salamander Gray Treefrog Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog Mink Frog	Classes SW, MA, FE, BO, OA and SA. Typically, these wetland Ecosites will be isolated >120 m) from woodland ecosites, however larger wetlands containing predominantly aquatic species (e.g. Bullfrog) may be adjacent to woodland.	*Suitable Habitat* • Wetlands >500 m^2 (about 25 m diameter) supporting high species diversity are significant • Some small or ephemeral habitats may not be identified on MNRF mapping and could be important amphibian breeding habitats • Presence of shrubs and logs increase significance of pond for some amphibian species because of available structure for calling, foraging, escape and concealment from predators • Bullfrogs require permanent water bodies with abundant emergent vegetation *Suggested Criteria*	Suitable habitat occurs within wetlands in the SPA and PSA, as do the listed species (see SWH Type #28). All wetlands greater than 500 m^2 located more than 120 m from a woodland (i.e., FOC, FOD or FOM) or wooded swamps in the SPA have been identified as Candidate SWH for this category. Wetlands meeting the suggested criteria based on data collected in 2017 have been identified as Confirmed SWH for this category. Candidate areas should be verified through site-specific study. Additional areas may also be identified through site specific study.	**Candidate and Confirmed SWH is mapped (ref. Map NH-6)**

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Bullfrog		Studies confirm: • Presence of breeding population of 1 or more of the listed newt/salamander species or 2 or more of the listed frog or toad species and with at least 20 individuals (adults, juveniles, eggs/larval masses) or 2 or more of the listed frog species with Call Level Codes of 3 • The ELC ecosite wetland area and the shoreline are the SWH		
30. Woodland Area-Sensitive Bird Breeding Habitat				
Yellow-bellied Sapsucker Red-breasted Nuthatch Veery Blue-headed Vireo Northern Parula Black-throated Green Warbler Blackburnian Warbler Black-throated Blue Warbler Ovenbird Scarlet Tanager Winter Wren Cerulean Warbler Canada Warbler	All Ecosites associated with these ELC Community Series: FOC FOM FOD SWC SWM SWD	*Suitable Habitat* • Habitats where interior forest breeding birds are breeding • Typically large mature (>60 yrs old) forest stands or woodlots >30 ha • Interior forest habitat is at least 200 m from forest edge habitat *Suggested Criteria* Studies confirm: • Presence of nesting or breeding pairs of 3 or more of the listed wildlife species. Any site with breeding Cerulean Warblers or Canada Warblers is to be considered SWH	No suitable habitat has been identified in the SPA or PSA due to the lack of interior forest, although a few of the listed species have been documented.	**Not Applicable**
Habitat for Species of Conservation Concern				
31. Marsh Bird Breeding Habitat				
American Bittern Virginia Rail Sora Common Moorhen American Coot Pied-billed Grebe Marsh Wren Sedge Wren Common Loon Sandhill Crane Green Heron Trumpeter Swan Black Tern Yellow Rail	MAM 1 MAM2 MAM3 MAM4 MAM5 MAM6 SAS1 SAM1 SAF1 FEO1 BOO1 For Green Heron: All SW, MA and CUM1 sites.	*Suitable Habitat* • Nesting occurs in wetlands • All wetland habitat is to be considered as long as there is shallow water with emergent aquatic vegetation present • For Green Heron, habitat is at the edge of water such as sluggish streams, ponds and marshes sheltered by shrubs and trees. Less frequently, it may be found in upland shrubs or forest a considerable distance from water *Suggested Criteria* Studies confirm: • Presence of 5 or more nesting pairs of Sedge Wren or Marsh Wren or breeding by any combination of 4 or more of the listed species • Note: any wetland with breeding of 1 or more Trumpeter Swans, Black Terns or Yellow Rail is SWH • Area of the ELC ecosite is the SWH	Limited suitable habitat occurs within the PSA and SPA, but most of the listed species have not been documented in the area and would not be expected to occur, with the exception of Pied-billed Grebe, Sora and Green Heron. The results of the breeding bird studies did not document any areas meeting the criteria, but access was limited and it is possible that it may occur. Site specific study may be required where suitable habitat exists to confirm the status of this SWH type.	**This type of SWH may occur but has not been mapped**
32. Open Country Bird Breeding Habitat				
Upland Sandpiper Grasshopper Sparrow Vesper Sparrow Northern Harrier Savannah Sparrow Short-eared Owl	CUM1 CUM2	*Suitable Habitat* • Large grassland areas (includes natural and cultural fields and meadows) >30 ha • Grasslands not Class 1 or 2 agricultural lands, and not being actively used for farming (i.e. no row cropping or intensive hay or livestock pasturing in the last 5 years) • Grassland sites considered significant should have a history of longevity, either abandoned fields, mature hayfields and pasturelands that are at least 5 years or older • The Indicator bird species are area sensitive requiring larger grassland areas than the common grassland species *Suggested Criteria* Field Studies confirm:	No suitable habitat has been identified in the SPA or PSA due to the lack of large enough contiguous meadow / grassland habitats, although a few of the listed species have been documented.	**Not Applicable**

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		• Presence of nesting or breeding of 2 or more of the listed species • A field with 1 or more breeding Short-eared Owls is to be considered SWH. The area of SWH is the contiguous ELC ecosite field areas		
33. Shrub/Early Successional Bird Breeding Habitat				
Indicator Species: Brown Thrasher Clay-coloured Sparrow Common Species: Field Sparrow Black-billed Cuckoo Eastern Towhee Willow Flycatcher Special Concern: Golden-winged Warbler	CUT1 CUT2 CUS1 CUS2 CUW1 CUW2 Patches of shrub ecosites can be complexed into a larger habitat for some bird species.	*Suitable Habitat* • Large natural field areas succeeding to shrub and thicket habitats >10ha in size. Shrub land or early successional fields, not class 1 or 2 agricultural lands, not being actively used for farming (i.e. no row-cropping, haying or live-stock pasturing in the last 5 years) • Shrub thicket habitats (>10 ha) are most likely to support and sustain a diversity of these species • Shrub and thicket habitat sites considered significant should have a history of longevity, either abandoned fields or pasturelands *Suggested Criteria* Field Studies confirm: • Presence of nesting or breeding of 1 of the indicator species and at least 2 of the common species • A habitat with breeding Golden-winged Warbler is to be considered as Significant Wildlife Habitat • The area of the SWH is the contiguous ELC ecosite field/thicket area	Potentially suitable habitat is present within the SPA and PSA due to the presence of cultural thickets of at least 10 ha. During the 2017 breeding bird surveys, Beacon noted several properties where listed species occurred: 1825 Victoria Road South (Brown Thrasher, Eastern Towhee and Field Sparrow), 132 Clair Road West (Brown Thrasher, Eastern Towhee and Field Sparrow), 2162 Gordon Street (Willow Flycatcher, Field Sparrow), south of Breeding Bird Station B6 (Brown Thrasher), 99 Maltby Road West (Field Sparrow), 2054 Gordon Street (Willow Flycatcher) and 2021 Gordon Street (Brown Thrasher and Field Sparrow). Additionally, background studies confirmed: • Brown Thrasher within the Westminster Woods East lands (NSE 2001, Stantec et al. 2005), and the 385 Maltby Rd. West lands (NRSI 2012); • Field Sparrow in the 132 Clair Road West lands (NSE 2015), 424 Maltby Road (Dance Environmental Inc. 2014), the Dallan lands (Stantec 2007) and the 385 Maltby Rd. West lands (NRSI 2012); • Black-billed Cuckoo on the 385 Maltby Rd. West lands (NRSI 2012); • Eastern Towhee on the 424 Maltby Road (Dance Environmental Inc. 2014) and on the 385 Maltby Rd. West lands (NRSI 2012); and • Willow Flycatcher noted at 132 Clair Road West (NSE 2015) and on the 385 Maltby Rd. West lands (NRSI 2012). Site-specific study will be needed to capture the best and most representative area(s) in the SPA.	**Several Candidate SWH areas are shown approximately with an asterisk but remain to be confirmed (ref. Map NH-6)**
34. Terrestrial Crayfish				
Chimney or Digger Crayfish (*Fallicambarus fodiens*) Devil Crawfish or Meadow Crayfish (*Cambarus Diogenes*)	MAM1, MAM2, MAM3, MAM4, MAM5, MAM6 MAS1, MAS2, MAS3 SWD, SWT, SWM CUM1 within inclusions of above meadow marsh or swamp ecosites can be used by terrestrial crayfish.	*Suitable Habitat* • Wet meadow and edges of shallow marshes (no minimum size) identified should be surveyed for terrestrial crayfish • Constructs burrows in marshes, mudflats, meadows; the ground can't be too moist • Can often be found far from water • Both species are a semi-terrestrial burrower which spends most of its life within burrows consisting of a network of tunnels; usually the soil is not too moist so that the tunnel is well formed *Suggested Criteria* Studies Confirm: • Presence of 1 or more individuals of species listed or their chimneys (burrows) in suitable marsh meadow or terrestrial sites • Area of ELC Ecosite polygon is the SWH	Suitable habitat occurs within the PSA and SPA. No evidence of Terrestrial Crayfish was documented during field studies within the PSA and SPA. However, surveys for this species were incidental and not targeted, and access was limited. Therefore they may occur. Site specific study may be required where suitable habitat exists to confirm the status of this SWH type.	**This type of SWH may occur but has not been mapped**

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities	Provincial Guidance for SWH in Ecoregion 6E*	Application to the Secondary Plan Area (SPA) and Primary Study Area (PSA)**	Assessed SWH Status in the SPA
35. Special Concern and Rare Wildlife Species			
	• All Special Concern and Provincially Rare (S1-S3, SH) plant and animal species • When an element occurrence is identified within a 1 or 10 km grid for a Special Concern or provincially rare species • Linking candidate habitat on the site needs to be completed to ELC Ecosites *Suggested Criteria* Studies confirm: • Assessment/inventory of the site for the identified special concern or rare species needs to be completed during the time of year when the species is present or easily identifiable • Habitat form and function needs to be assessed from the assessment of ELC vegetation types and an area of significant habitat that protects the rare or special concern species identified • The area of the habitat to the finest ELC scale that protects the habitat form and function is the SWH; this must be delineated through detailed field studies • The habitat needs be easily mapped and cover an important life stage component for a species (e.g. specific nesting habitat or foraging habitat)	Suitable habitat occurs within the SPA and PSA for a number of Special Concern species as well as some species list provincially as S1, S2, S3 or SH. These were documented by Beacon in 2017 and in other background studies (ref. Appendix NH-4 and Appendix NH-5). Site specific studies should include screening for these species to confirm the status of this SWH type.	**This type of SWH may occur but has not been mapped**
Animal Movement Corridors			
36. Amphibian Movement Corridors			
Eastern Newt American Toad Spotted Salamander Four-toed Salamander Blue-spotted Salamander Gray Treefrog Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog Mink Frog Bullfrog	• Amphibian movement corridors should only be identified as SWH where a confirmed or Candidate SWH has been identified by MNRF or the planning authority • Movement corridors between breeding habitat and summer habitat • Movement corridors must be considered when amphibian breeding habitat is confirmed as SWH • Field Studies must be conducted at the time of year when species are expected to be migrating or entering breeding sites • Corridors should consist of native vegetation, with several layers of vegetation • Corridors unbroken by roads, waterways or bodies, and undeveloped areas are most significant • Corridors should be at least 15 m of vegetation on both sides of waterway or be up to 200 m wide of woodland habitat and with gaps <20 m • Shorter corridors are more significant than longer corridors, however amphibians must be able to get to and from their summer and breeding habitat	The amphibian movement documented through the Clair Maltby Secondary Plan studies, and through previous work (Dougan & Associates with Snell and Cecile 2009a), has been primarily across existing roads. The City has identified several Ecological Linkages which are intended to, among other functions, support amphibian movement. Other portions of the NHS which connect Candidate or Confirmed amphibian breeding habitats with summer foraging or wintering habitats may also provide linkage functions. One or more of these areas may meet the criteria for amphibian movement corridors. Site specific studies should include screening for amphibian movement where suitable habitat exists to confirm the status of this SWH type.	**This type of SWH may occur but has not been mapped**
37. Deer Movement Corridors			
White-tailed Deer	• Deer movement corridors should only be identified as SWH where a confirmed or Candidate SWH has been identified by MNRF or the planning authority • Corridors follow riparian areas, woodlots, areas of physical geography (ravines or ridges) • Field Studies must be conducted at the time of year when species are expected to be migrating or moving to and from winter concentration areas • Corridors that lead deer to wintering habitat should be unbroken by roads or residential areas • Corridors should be at least 200 m wide with gaps less than 20 m, and if following a riparian area, there must be at least 15 m of vegetation on both sides of the waterway	No deer movement corridors meeting the SWH criteria have been identified by MNRF to date in the SPA. However, the City has identified Ecological Linkages that, based on the available information, are in appropriate locations to support deer movement in an urbanized context.	**Not Applicable**

* Adapted from the listed species and habitat criteria provided in the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF 2015) but updated to reflect any relevant changes in species status. For example, Tri-coloured Bat (*Perimyotis subflavus*) is now listed as Threatened and Yellow-breasted Chat (*Icteria virens*) is now listed as Endangered so these species need to be addressed as a Species at Risk under the Endangered Species Act (2007) and not under SWH. See Appendix NH-6.

** The SWH assessment considered the broader PSA (i.e., a 500 m zone surrounding the SPA) where contiguous or adjacent natural and semi-natural areas occur in this zone. The SPA was included in the assessment in two ways: (a) to screen for suitable habitat and (b) to screen for data from background studies (ref. Appendix NH-1) that may inform the assessment. However, ultimate refinements to t he SWH mapping will be restricted to within the City's boundaries and will be focussed within the SPA.