



Severn Sound
Environmental Association

**WETLAND EVALUATION OF
MIDLAND LITTLE LAKE WETLAND
MIDLAND**



NOVEMBER 2007

**WETLAND EVALUATION OF
MIDLAND LITTLE LAKE WETLAND
MIDLAND, ONTARIO**

November 2007

**Prepared for
THE TOWN OF MIDLAND
and
THE ONTARIO MINISTRY OF NATURAL RESOURCES**

**by
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FOREWORD

This document reports on the major findings of the Wetland Evaluation of Midland Little Lake Wetland, conducted during 2006 by the Severn Sound Environmental Association (SSEA) for the Town of Midland and the Ontario Ministry of Natural Resources.

The evaluation was conducted using the standards set out in the Ontario Wetland Evaluation System, Southern Manual, 3rd edition. The Midland Little Lake wetland evaluation has been reviewed and accepted by the Ontario Ministry of Natural Resources Midhurst District.

This wetland was formerly known as “Midland Park Lake Swamp”. In 2007, the Ministry of Natural Resources renamed the wetland “Midland Little Lake Wetland”, to more accurately reflect the local name for the area and the wetland communities present.

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Severn Sound Environmental Association staff provided essential support and professional expertise throughout the project. In particular, the support of Keith Sherman, Lex McPhail and Kristina Kostuk was essential to the preparation of this wetland evaluation. Thank you also to Jason Bryans and Oliver Bach for field support and assisting with data collection.

The project team would like to thank Ontario Ministry of Natural Resources (OMNR) staff for their assistance with the evaluation. We received background information, support and expertise from Brad Allan (Biologist), Suzanne Robinson (Acting District Ecologist), Greg Cull (Fish & Wildlife Technical Specialist), and Paul Jurjans (GIS Officer) at the Midhurst OMNR office, Judy Rhodes-Munk (Acting Area Ecologist) at the Owen Sound OMNR office, and Michael Oldham (Botanist/Herpetologist) of the Natural Heritage Information Centre at the Peterborough OMNR office.

Special thanks to Town of Midland staff Fred Flood, Bryan MacKell, and Andrea Rabbitts for municipal information and support, and to Jamie Hunter at Huronia Museum, for providing information on the cultural resources of the Midland Little Lake Wetland area.

Landowner support was important to this project. We would like to thank the private landowners in the Midland Little Lake Wetland area that kindly allowed us to access their properties for the purpose of conducting the wetland evaluation. In addition, several landowners provided information that was helpful for completing the evaluation. Special thanks to Tim Tully for useful information, and to Lois McQuirter for allowing us to use her canoe during our field investigations.

All photographs in this report were taken by SSEA staff unless otherwise noted.

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1. INTRODUCTION

1.1 Background

Midland Little Lake Wetland, formerly known as Midland Park Lake Swamp, is located in the Town of Midland (Figure 1). The Town of Midland owns approximately 67% of this wetland, and the remainder is under private ownership.

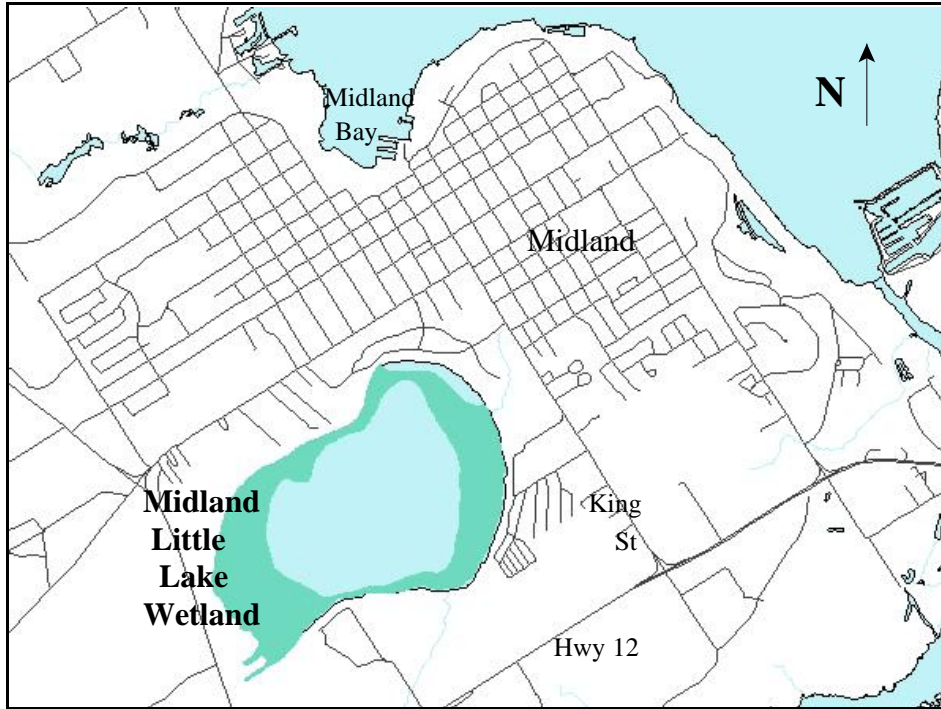


Figure 1: Location of Midland Little Lake Wetland

A wetland evaluation was conducted in 1985 by the Ontario Ministry of Natural Resources (OMNR), and Midland Park Lake Swamp was evaluated as a Class 5 Wetland. In 1993, changes were made to the Southern Ontario Wetland Evaluation System, and a desktop revision of Midland Park Lake Swamp to third edition Wetland Evaluation Standards was undertaken by the OMNR in 1994. While the upgrade concluded that Midland Park Lake Swamp was a non-provincially significant wetland, the revision was an in-office exercise based on information gathered in 1985. No boundary verification or additional field work was conducted in support of the paper upgrade.

1.2 Purpose

The purpose of this project was to conduct field work, and prepare and submit a revised evaluation and mapping for Midland Little Lake Wetland, upgraded to the 3rd edition standards of the Ontario Wetland Evaluation System.

1.3 Study Team

Severn Sound Environmental Association (SSEA) undertook the wetland evaluation, funded by the Town of Midland, with support from the Ontario Ministry of Natural Resources. The Town of Midland provided assessment data and background information, and OMNR provided direction and technical advice during the project.

The primary investigators for the field component of the evaluation were Michelle Hudolin, SSEA Wetlands & Habitat Biologist, and contractor Bob Bowles. Margaret Killing (volunteer), Kristina Kostuk (SSEA Water Scientist), Jason Bryans (SSEA seasonal staff), Oliver Bach (SSEA intern), Suzanne Robinson (OMNR), Aisha Chiandet (volunteer), and Adam Bowles (volunteer) assisted with field investigations and data collection. SSEA Coordinator Keith Sherman provided guidance, input and assistance throughout the project, and Geographic Information System (GIS) support and mapping was provided by Lex McPhail, SSEA GIS/Applications Specialist.

1.4 Fieldwork and Data Collection

Three seasons of field investigations were undertaken to assess features in Midland Little Lake Wetland, map and describe vegetation communities, and collect information on species utilizing the wetland. Field work was conducted on May 3, May 10, June 15, July 13, August 9, September 20, and September 29, 2006. During field visits, the field crew compiled a list of plant species observed, and recorded incidental observations of wildlife species; minnows were trapped and identified on September 29. Soils were sampled with a hand auger to determine general soil types present in the wetland, to a maximum depth of 120 cm.

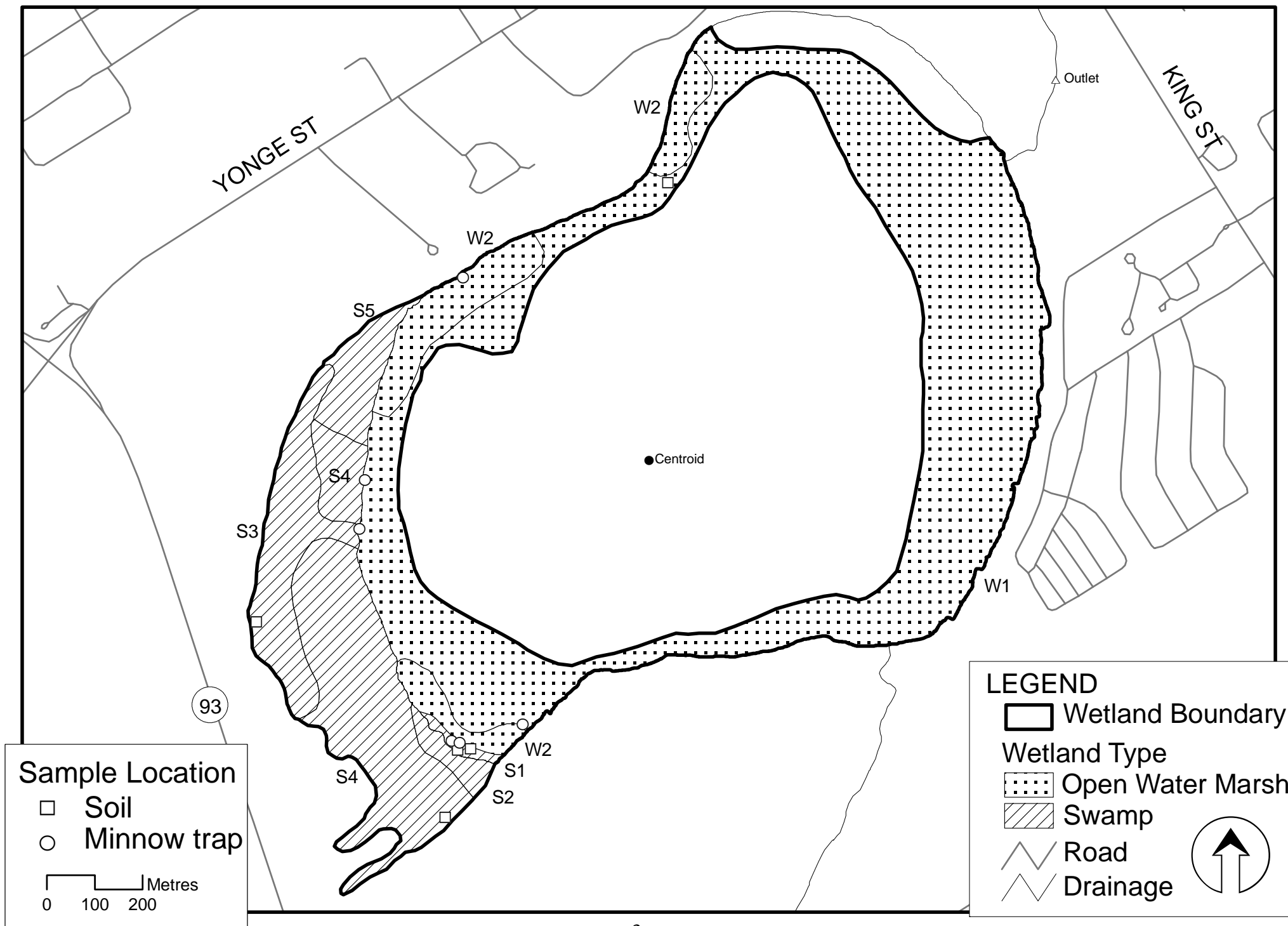
Access was not granted to all parcels of land within the study area, therefore some information was not directly obtainable from field observations. In these cases, existing information and aerial photograph interpretation was used to determine the wetland boundary and describe the wetland communities. If an opportunity arises in the future to access these lands, the vegetation communities and wetland evaluation record should be updated accordingly.

2. WETLAND EVALUATION

A map of the wetland communities in the complex was produced (Figure 2). The communities are divided into wetland types (S=swamp, W=open water marsh), and each community has been given an alpha-numeric identifier according to the evaluation system protocol.

Figure 2 **Midland Little Lake Wetland** Town of Midland

Produced by the Severn Sound Environmental Association with Data supplied under License by Members of the Ontario Geospatial Data Exchange, 2006.



Under the 3rd Edition Ontario Wetland Evaluation System Southern Manual, a wetland evaluation is scored in four main categories: Biological, Social, Hydrological, and Special Features components. The Biological section assesses ecological and biological values of the wetland. The Social component evaluates the uses that wetlands provide to people (e.g., recreational opportunities and natural resources such as timber and furbearers). The Hydrological category evaluates factors such as flood attenuation and water quality improvement. The Special Features component allows attributes such as significant wildlife habitat and rare species to be evaluated. The Extra Information section of the evaluation provides an opportunity for reporting additional information that does not receive points toward the evaluation score, such as the presence of invasive species or other notable species such as Osprey (*Pandion haliaetus*) and Loon (*Gavia immer*).

Points are awarded for each category, based on the evaluation system protocol. The sum of the points from all categories results in the final score for the wetland or wetland complex, and represents the status of the wetland at the time of the study. Each of the four components can score a maximum of 250 points, and thus a wetland or wetland complex can score a maximum of 1000 points. Wetlands that receive a total score of 600 points (or greater) or score 200 points (or greater) in either the Biological or Special Features scoring components are categorized as Provincially Significant Wetlands. Wetlands that receive a total score of less than 600 points and score less than 200 points in each of the Biological and Special Features scoring components are categorized as Non-provincially Significant Wetlands, and are often designated Locally Significant Wetlands by municipalities. The significant findings of the field work for the Midland Little Lake Wetland evaluation are outlined below.

2.1 Biological Component

The Midland Little Lake Wetland contains two distinct wetland types: swamp and marsh. Overall, the wetland is dominated by open water marsh (70%), occurring around the periphery of the lake to a depth of 2 m (Figure 2). This marsh habitat primarily consists of submerged aquatic plants, and small concentrations of floating leaved plants such as waterlilies (Figure 3). The swamp component of the wetland (30%) is located at the west end of the lake, and includes a small area of low shrub swamp (Figure 4), an area of tall shrub swamp, and a large component of deciduous swamp habitat (Figure 5). The 78.6 hectare Midland Little Lake Wetland is a contiguous wetland area (Figure 2).



Figure 3: Open Water Marsh Community W2



Figure 4: Low Shrub Swamp Community S1 (foreground)



Figure 5: Deciduous Swamp Community S5

The habitat and topography surrounding Midland Little Lake Wetland is a diverse mixture of row crops, abandoned agricultural land, deciduous, coniferous and mixed forest, open lake, fence rows with cover, and hilly terrain. In addition, Midland Little Lake Wetland is located within approximately 1.9 km of Midland Swamp Provincially Significant Wetland, 2.2 km of Wye Marsh Provincially Significant Wetland and Regional Life Science Area of Natural and Scientific Interest (ANSI), and 3.2 km of Lalligan Lake Provincially Significant Wetland and Regional Life Science ANSI. Habitat variety adjacent to wetlands and connectivity to other natural areas is valuable from a biological perspective, because high ecological diversity typically supports a large number of species of plants and animals, and landscape connectivity allows animals to move between areas of high habitat importance.

2.2 Social Component

The field crew noted the presence of a number of potential resources in Midland Little Lake Wetland that contribute to the scoring for the social component of the evaluation, including wood products and wildlife species. Approximately 16 hectares of the wetland is dominated by deciduous forest. The field crew directly observed or found evidence (e.g., scat, tracks, browse) of several economically valuable wildlife species in the wetland, including Beaver (*Castor canadensis*) and Raccoon (*Procyon lotor*). In addition, local residents reported that Muskrat (*Ondatra zibethicus*), Red Fox (*Vulpes vulpes*), Coyote (*Canis latrans*), Mink (*Mustela vison*), Fisher (*Martes pennanti*), Long-tailed Weasel (*Mustela frenata*) and Skunk (*Mephitis mephitis*) use the wetland (L. McQuirter and T. Tully, pers. comm.). Minnows and Snapping Turtle (*Chelydra serpentina serpentina*) were observed by the field crew in the wetland in 2006, and contribute to the social score for the wetland.

A large portion of Midland Little Lake Wetland is owned by the Town of Midland. The lake is popular for canoeing and fishing, and is occasionally visited by naturalists and birdwatchers. Human disturbances to the wetland are fairly localized, and include filling near some edges of the wetland, and a snowmobile trail (Figure 6) through part of the wetland. There are no known visits to the wetland by educational groups, and no maintained facilities such as a board walk. Midland Little Lake Wetland is located within the settlement area of the Town of Midland, with 67% of the wetland area municipally owned, and the remaining 33% in private ownership.



Figure 6: Snowmobile Trail, July 2006

In addition to the original 1985 wetland evaluation, a number of studies have been done on the Midland Little Lake Wetland area, including fisheries studies in the lake (OMNR 2003).

Jamie Hunter from Huronia Museum provided information on the cultural resources of the area surrounding Midland Little Lake Wetland. The old Penetanguishene Road passes directly through the wetland. This road was the first settlement road in Simcoe County, and was used by naval and military personnel between 1811 and 1821. The presence of this cultural feature contributes additional points to the Social component of the evaluation.

2.3 Hydrological Component

Midland Little Lake Wetland is the main detention area in its catchment (Figure 7). As such, it receives a high score for flood attenuation in the catchment area. In addition, due to its size and location in a largely urban watershed, it receives a high score for short term water quality improvement.

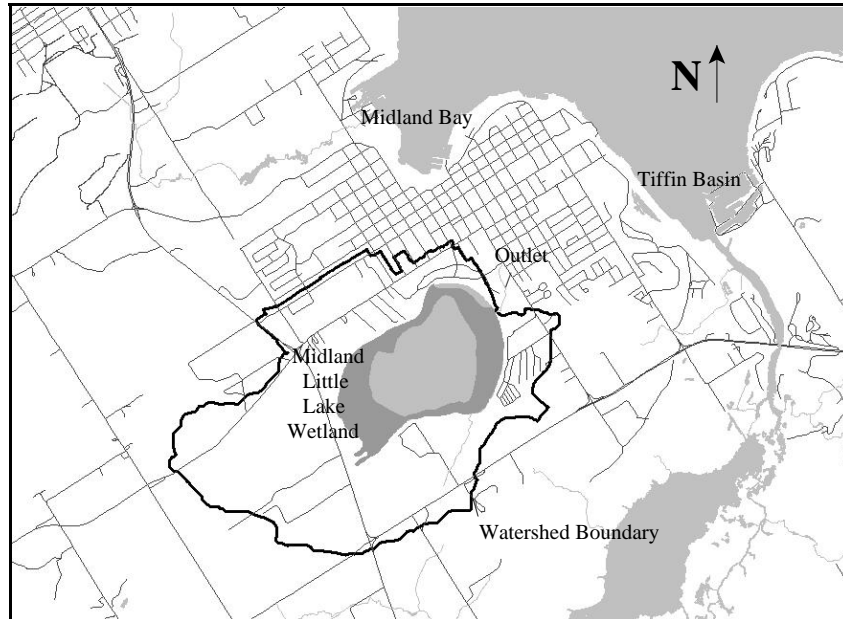


Figure 7: Midland Little Lake Wetland Catchment Area

There are numerous springs and seeps in Midland Little Lake Wetland, and the wetland is located within 1 km of a major aquifer, surrounded by hilly topography. These factors contribute to a relatively high score for groundwater discharge.

2.4 Special Features Component

Special features attributes include rare species and significant wildlife habitat. During field visits to Midland Little Lake Wetland, the field crew recorded 62 plant species (Appendix A), and 108 wildlife species, including birds, mammals, amphibians, butterflies, dragonflies and damselflies, and fish (Appendix B) in the wetland and adjacent uplands.

The field crew documented 58 species of birds in the wetland during field visits, including breeding birds, summer residents and migrants. Waterfowl utilizing the wetland included Canada Goose (*Branta canadensis*), Wood Duck (*Aix sponsa*), Mallard (*Anas platyrhynchos*), Blue-winged Teal (*Anas discors*), and Common Merganser (*Mergus merganser*). Other wetland avifauna noted included Great Blue Heron (*Ardea herodias*), Double-crested Cormorant (*Phalacrocorax auritus*), American Woodcock (*Scolopax minor*), and Belted Kingfisher (*Ceryle alcyon*), among many others. Breeding evidence (nest and/or eggs) was noted for Killdeer (*Charadrius vociferus*) and Canada Goose, whose nest contained six eggs (Figure 8).



photo: B. Bowles

Figure 8: Nest of Canada Goose (*Branta canadensis*)

Migrant birds observed using the wetland in spring/fall included: Yellow-rumped Warbler (*Dendroica coronata*). Several additional bird species were observed outside the wetland boundaries, including Spotted Sandpiper (*Actitis macularia*), Brown Thrasher (*Toxostoma rufum*), Chestnut-sided Warbler (*Dendroica pensylvanica*), and Field Sparrow (*Spizella pusilla*).

Five species of amphibians and five species of reptiles were observed in the wetland during the field season, including American Toad (*Bufo americanus*), Gray Treefrog (*Hyla versicolor*), Northern Leopard Frog (*Rana pipiens*), Midland Painted Turtle (*Chrysemys picta marginata*), Eastern Garter Snake (*Thamnophis sirtalis sirtalis*), and Brown Snake (*Storeria dekayi*). In addition, Mink Frog (*Rana septentrionalis*) was reported using the wetland by a local resident (T. Tully, pers. comm.).

Mammals were observed directly and/or were identified by the presence of tracks, scat, and browse. Five mammal species were identified during 2006 field work, including Eastern Chipmunk (*Tamias striatus*), Beaver, Raccoon, and White-tailed Deer (*Odocoileus virginianus*) in the wetland, and Red Squirrel (*Tamiasciurus hudsonicus*) outside the wetland boundaries.

Minnows were trapped on September 29, 2006. Minnow traps were placed at six locations in Midland Little Lake Wetland (Figure 2). Species trapped and observed in the wetland included Bluntnose Minnow (*Pimephales notatus*), Pumpkinseed (*Lepomis gibbosus*), and Largemouth Bass (*Micropterus salmoides*).

Twenty-one species of dragonflies and damselflies were documented in Midland Little Lake Wetland. Dragonfly species observed during field investigations included Calico Pennant (*Celithemis elisa*), Eastern Pondhawk (*Erythemis simplicicollis*), Slaty Skimmer (*Libellula incesta*), and Yellow-legged Meadowhawk (*Sympetrum vicinum*). Two damselfly species uncommon in Simcoe County were identified on July 13, 2006: Elegant Spreadwing (*Lestes inaequalis*) and Skimming Bluet (*Enallagma geminatum*).

Nine species of butterflies were identified in the wetland during 2006, including two uncommon Simcoe County species observed on June 15, 2006: Milbert's Tortoiseshell (*Nymphalis milberti*) and Silver-spotted Skipper (*Epargyreus clarus*).

There is no known breeding, migration, or feeding habitat for Endangered species in Midland Little Lake Wetland. Four Provincially Significant animal species were observed in the wetland in 2006.

2.4.1 Provincially Significant Animal Species

Four Provincially Significant species were observed in Midland Little Lake Wetland during 2006: two species of birds, one reptile species, and one dragonfly species. According to the wetland evaluation system protocol, a species that is being actively tracked by the OMNR's Natural Heritage Information Centre (NHIC) is included in the Provincially Significant Animals category.

Migrant Buffleheads (*Bucephala albeola*) were observed feeding in the open water marsh areas of the wetland on May 3, 2006. Occurrences of this duck species are tracked by the OMNR's Natural Heritage Information Centre, and thus it is scored as a Provincially Significant Species in the evaluation. On July 13, 2006, a Caspian Tern (*Sterna caspia*) was observed actively foraging and feeding in the open water marsh of Midland Little Lake Wetland by the field crew. This species receives points as a Provincially Significant species due to its tracked status given by the NHIC.

On May 3, 2006, a Map Turtle (*Graptemys geographica*) was observed and photographed (Figure 9) in Midland Little Lake Wetland. This turtle was observed in the same location again on May 10, 2006. Designated a 'Special Concern' reptile by the OMNR, this turtle is also species tracked by the NHIC.



photo: B. Bowles

Figure 9: Map Turtle (*Grappemys geographica*)

The field crew captured, identified, photographed (Figure 10) and live-released a Mottled Darner (*Aeshna clepsydra*) on August 9, 2006. This dragonfly species is tracked by the NHIC, and was reported in the Midland Little Lake Wetland area in 1992.



photo: B. Bowles

Figure 10: Thoracic Pattern of Mottled Darner (*Aeshna clepsydra*)

2.4.2 Fish and Wildlife Habitat

Midland Little Lake Wetland contains stands of coniferous trees mixed with deciduous trees and shrubs, and the wetland is used by wildlife such as White-tailed Deer in winter. However, County Road 93 and the development surrounding the lake are significant barriers to movement of wildlife in winter, and thus the wetland is not considered locally significant winter cover for wildlife (B. Allan, pers. comm.).

While waterfowl breeding, staging and moulting occur in Midland Little Lake Wetland, they are not known to be of national, provincial or regional significance, and thus score relatively low in the evaluation.

Fish habitat is present in Midland Little Lake Wetland, as evidenced by the minnows trapped and larger fish observed during 2006 field visits, as well as results from previous fish studies (OMNR 2003). Spawning and nursery habitat, and migration and staging habitat are considered locally significant by the OMNR (B. Allan, pers. comm.).

2.5 Extra Information

Non-native, invasive species are of concern in many wetlands, including Midland Little Lake Wetland. The non-native, invasive shrub Glossy Buckthorn (*Rhamnus frangula*) was observed throughout Midland Little Lake Wetland, in the understory and as taller shrubs. This species may be out-competing native species for habitat, reducing overall plant diversity in the wetland.

2.6 Evaluation Score

The total score for Midland Little Lake Wetland is 705, making it a Provincially Significant Wetland. Midland Little Lake Wetland scores 115 in the Biological component, 172 in the Social component, 182 in the Hydrological component, and 236 in the Special Features component, due to the presence of significant species and habitat. The Data and Scoring Record is on file with the OMNR Midhurst District.

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Appendix A
Plants of Midland Little Lake Wetland
Observed during 2006 Wetland Evaluation field work

Family Name	Genus	Species	Common Name	Additional Notes
ACERACEAE	Acer	negundo	Manitoba Maple	
ACERACEAE	Acer	rubrum	Red Maple	
ALISMATACEAE	Alisma	plantago-aquatica	Common Water-plantain	
BETULACEAE	Alnus	incana ssp rugosa	Speckled Alder	
ASCLEPIADACEAE	Asclepias	incarnata ssp. incarnata	Swamp Milkweed	
ASTERACEAE	Aster	urophyllus	Arrow-leaved Aster	
POLYPODIACEAE	Athyrium	filix-femina ssp angustum	Lady Fern	
CABOMBACEAE	Brasenia	schreberi	Water Shield	
CYPERACEAE	Carex	hystericina	Porcupine Sedge	
CYPERACEAE	Carex	intumescens	Bladder Sedge	
CYPERACEAE	Carex	lupulina	Hop Sedge	
CYPERACEAE	Carex	stipata	Awl-fruited Sedge	
CYPERACEAE	Carex	tenera	Slender Sedge	
RUBIACEAE	Cephalanthus	occidentalis	Buttonbush	
CORNACEAE	Cornus	stolonifera	Red-osier Dogwood	
LYTHRACEAE	Decodon	verticillatus	Swamp Loosestrife	
ORCHIDACEAE	Epipactis	helleborine	Helleborine	introduced species; observed outside wetland
OLEACEAE	Fraxinus	pennsylvanica	Red Ash	
POACEAE	Glyceria	striata	Fowl Meadow Grass	
AQUIFOLIACEAE	Ilex	verticillata	Winterberry	
BALSAMINACEAE	Impatiens	capensis	Spotted Touch-me-not	

Family Name	Genus	Species	Common Name	Additional Notes
IRIDACEAE	Iris	versicolor	Large Blue-flag	
JUNCACEAE	Juncus	effusus ssp. solutus	Soft or Bog Rush	
PINACEAE	Larix	laricina	Tamarack/American Larch	
FABACEAE	Lathyrus	latifolius	Everlasting Pea	introduced species; observed outside wetland
LEMNACEAE	Lemna	minor	Lesser Duckweed	
PRIMULACEAE	Lysimachia	ciliata	Fringed Loosestrife	
PRIMULACEAE	Lysimachia	terrestris	Swamp Candles	
SCROPHULARIACEAE	Mimulus	ringens	Square-stemmed Monkey-flower	
HALORAGACEAE	Myriophyllum	spicatum	Eurasian Water-milfoil	introduced species
NAJADACEAE	Najas	flexilis	Slender Naiad	
AQUIFOLIACEAE	Nemopanthus	mucronatus	Mountain Holly	
NYMPHACEAE	Nuphar	variegatum	Bullhead pond-lily	
NYMPHACEAE	Nymphaea	odorata	Fragrant Water-lily	
POLYPODIACEAE	Onoclea	sensibilis	Sensitive Fern	
OSMUNDACEAE	Osmunda	cinnamomea	Cinnamon Fern	
OSMUNDACEAE	Osmunda	regalis	Royal Fern	
VITACEAE	Parthenocissus	inserta	Virginia Creeper	
POACEAE	Phalaris	arundinacea	Reed Canary Grass	
PINACEAE	Pinus	strobus	Eastern White Pine	
POLYGONACEAE	Polygonum	amphibium	Water Smartweed	
POLYGONACEAE	Polygonum	cuspidatum	Japanese Knotweed	introduced species
PONTEDERIACEAE	Pontederia	cordata	Pickerel-weed	
SALICACEAE	Populus	alba	White Poplar	introduced species
POTAMOGETONACEAE	Potamogeton	natans	Common Floating Pondweed	
ROSACEAE	Potentilla	palustris	Marsh Cinquefoil	

Family Name	Genus	Species	Common Name	Additional Notes
POLYPODIACEAE	Pteridium	aquilinum	Eastern Bracken-fern	
RHAMNACEAE	Rhamnus	frangula	Glossy Buckthorn	introduced species
ANACARDIACEAE	Rhus	radicans ssp. rydbergii	Rydberg's Poison-ivy	
SALICACEAE	Salix	fragilis	Crack Willow	introduced species
SALICACEAE	Salix	lucida	Shining Willow	
CYPERACEAE	Scirpus	pungens	Three Square Bulrush	
SOLANACEAE	Solanum	dulcamara	Climbing Nightshade	introduced species
SPARGANIACEAE	Sparganium	americanum	American Bur-reed	
POLYPODIACEAE	Thelypteris	palustris var. pubescens	Marsh Fern	
TYPHACEAE	Typha	x glauca	Hybrid Cattail	
LENTIBULARIACEA	Utricularia	vulgaris	Greater Bladderwort	
HYDROCHARITACEAE	Vallisneria	americana	Water-celery/Tape-grass	
SCROPHULARIACEAE	Veronica	longifolia	Long-leaved Speedwell	introduced species
CAPRIFOLIACEAE	Viburnum	lentago	Nannyberry	
CAPRIFOLIACEAE	Viburnum	opulus	Guelder Rose	introduced species
VITACEAE	Vitis	riparia	Riverbank Grape	

Appendix B
Fauna of Midland Little Lake Wetland
Recorded During 2006 Wetland Evaluation Field Work

Common Name	Scientific Name	Additional Notes
Birds		
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	
Great Blue Heron	<i>Ardea herodias</i>	
Turkey Vulture	<i>Cathartes aura</i>	
Canada Goose	<i>Branta canadensis</i>	breeding evidence: nest with 6 eggs (photo)
Wood Duck	<i>Aix sponsa</i>	
Mallard	<i>Anas platyrhynchos</i>	
Blue-winged Teal	<i>Anas discors</i>	
Bufflehead	<i>Bucephala albeola</i>	Provincially Significant Species; migrants feeding in wetland
Common Merganser	<i>Mergus merganser</i>	
Red-tailed Hawk	<i>Buteo jamaicensis</i>	
Killdeer	<i>Charadrius vociferus</i>	breeding evidence: eggshells
Spotted Sandpiper	<i>Actitis macularia</i>	observed outside wetland boundaries
Common Snipe	<i>Gallinago gallinago</i>	
American Woodcock	<i>Scolopax minor</i>	
Ring-billed Gull	<i>Larus delawarensis</i>	
Herring Gull	<i>Larus argentatus</i>	
Caspian Tern	<i>Sterna caspia</i>	Provincially Significant Species; foraging in wetland
Mourning Dove	<i>Zenaida macroura</i>	
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	
Belted Kingfisher	<i>Ceryle alcyon</i>	
Downy Woodpecker	<i>Picoides pubescens</i>	
Hairy Woodpecker	<i>Picoides villosus</i>	
Northern Flicker	<i>Colaptes auratus</i>	
Pileated Woodpecker	<i>Dryocopus pileatus</i>	
Eastern Wood-Pewee	<i>Contopus virens</i>	
Least Flycatcher	<i>Empidonax minimus</i>	
Eastern Phoebe	<i>Sayornis phoebe</i>	
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	
Eastern Kingbird	<i>Tyrannus tyrannus</i>	
Warbling Vireo	<i>Vireo gilvus</i>	
Red-eyed Vireo	<i>Vireo olivaceus</i>	
Blue Jay	<i>Cyanocitta cristata</i>	
American Crow	<i>Corvus brachyrhynchos</i>	
Common Raven	<i>Corvus corax</i>	
Tree Swallow	<i>Tachycineta bicolor</i>	
Black-capped Chickadee	<i>Poecile atricapillus</i>	
Red-breasted Nuthatch	<i>Sitta canadensis</i>	

Common Name	Scientific Name	Additional Notes
White-breasted Nuthatch	<i>Sitta carolinensis</i>	
Brown Creeper	<i>Certhia americana</i>	
House Wren	<i>Troglodytes aedon</i>	observed outside wetland boundaries
Veery	<i>Catharus fuscescens</i>	
American Robin	<i>Turdus migratorius</i>	
Gray Catbird	<i>Dumetella carolinensis</i>	
Brown Thrasher	<i>Toxostoma rufum</i>	observed outside wetland boundaries
European Starling	<i>Sturnus vulgaris</i>	
Cedar Waxwing	<i>Bombycilla cedrorum</i>	
Yellow Warbler	<i>Dendroica petechia</i>	
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>	observed outside wetland boundaries
Yellow-rumped Warbler	<i>Dendroica coronata</i>	migrant
Black-throated Green Warbler	<i>Dendroica virens</i>	
Pine Warbler	<i>Dendroica pinus</i>	
Black-and-White Warbler	<i>Mniotilta varia</i>	
American Redstart	<i>Setophaga ruticilla</i>	
Ovenbird	<i>Seiurus aurocapillus</i>	
Northern Waterthrush	<i>Seiurus noveboracensis</i>	
Field Sparrow	<i>Spizella pusilla</i>	observed outside wetland boundaries
Song Sparrow	<i>Melospiza melodia</i>	
Swamp Sparrow	<i>Melospiza georgiana</i>	
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	
Common Grackle	<i>Quiscalus quiscula</i>	
Brown-headed Cowbird	<i>Molothrus ater</i>	observed outside wetland boundaries
Baltimore Oriole	<i>Icterus galbula</i>	
American Goldfinch	<i>Carduelis tristis</i>	
Amphibians		
American Toad	<i>Bufo americanus</i>	
Tetraploid Gray Treefrog	<i>Hyla versicolor</i>	
Spring Peeper	<i>Pseudacris crucifer</i>	
Northern Leopard Frog	<i>Rana pipiens</i>	
Green Frog	<i>Rana clamitans melanota</i>	
Mink Frog	<i>Rana septentrionalis</i>	reported by local resident T. Tully
Reptiles		
Common Snapping Turtle	<i>Chelydra serpentina serpentina</i>	
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	
Common Map Turtle	<i>Graptemys geographica</i>	Provincially Significant Species (photo)
Eastern Garter Snake	<i>Thamnophis sirtalis sirtalis</i>	
Brown Snake	<i>Storeria dekayi</i>	

Common Name	Scientific Name	Additional Notes
Fish		
Bluntnose Minnow	<i>Pimephales notatus</i>	observed in wetland
Pumpkinseed	<i>Lepomis gibbosus</i>	identified in minnow trap
Largemouth Bass	<i>Micropterus salmoides</i>	identified in minnow trap
Mammals		
Eastern Chipmunk	<i>Tamias striatus</i>	
Red Squirrel	<i>Tamiasciurus hudsonicus</i>	observed outside wetland boundaries
Beaver	<i>Castor canadensis</i>	lodge and browse observed
Muskrat	<i>Ondatra zibethicus</i>	reported by local residents T. Tully and L. McQuirter
Coyote	<i>Canis latrans</i>	reported by local resident L. McQuirter
Red Fox	<i>Vulpes vulpes</i>	reported by local residents T. Tully and L. McQuirter
Raccoon	<i>Procyon lotor</i>	tracks observed
Fisher	<i>Martes pennanti</i>	reported by local resident T. Tully
Long-tailed Weasel	<i>Mustela frenata</i>	reported by local resident T. Tully
Striped Skunk	<i>Mephitis mephitis</i>	reported by local residents T. Tully and L. McQuirter
White-tailed Deer	<i>Odocoileus virginianus</i>	
Dragonflies and Damselflies		
Common Spreadwing (australis)	<i>Lestes disjunctus australis</i>	
Emerald Spreadwing	<i>Lestes dryas</i>	
Elegant Spreadwing	<i>Lestes inaequalis</i>	uncommon species in Simcoe County
Aurora Damsel	<i>Chromagrion conditum</i>	
Marsh Bluet	<i>Enallagma ebrium</i>	
Skimming Bluet	<i>Enallagma geminatum</i>	uncommon species in Simcoe County
Eastern Forktail	<i>Ischnura verticalis</i>	
Mottled Darner	<i>Aeshna clepsydra</i>	Provincially Significant Species (photo)
Common Green Darner	<i>Anax junius</i>	
Common Baskettail	<i>Epitheca cynosura</i>	
Calico Pennant	<i>Celithemis elisa</i>	
Eastern Pondhawk	<i>Erythemis simplicicollis</i>	
Dot-tailed Whiteface	<i>Leucorrhinia intacta</i>	
Slaty Skimmer	<i>Libellula incesta</i>	
Chalk-fronted Skimmer	<i>Ladona julia</i>	
Widow Skimmer	<i>Libellula luctuosa</i>	
Common Whitetail	<i>Plathemis lydia</i>	
Twelve-spotted Skimmer	<i>Libellula pulchella</i>	
Four-spotted Skimmer	<i>Libellula quadrimaculata</i>	
White-faced Meadowhawk	<i>Sympetrum obtrusum</i>	
Yellow-legged Meadowhawk	<i>Sympetrum vicinum</i>	

Common Name	Scientific Name	Additional Notes
Butterflies		
Canadian Tiger Swallowtail	<i>Papilio canadensis</i>	
Mustard White	<i>Pieris oleracea</i>	
Cabbage White	<i>Pieris rapae</i>	
Spring Azure	<i>Celastrina ladon</i>	
Great Spangled Fritillary	<i>Speyeria cybele</i>	
Northern Crescent	<i>Phyciodes pascoensis</i>	
Milbert's Tortoiseshell	<i>Nymphalis milberti</i>	uncommon species in Simcoe County
Monarch	<i>Danaus plexippus</i>	
Silver-spotted Skipper	<i>Epargyreus clarus</i>	uncommon species in Simcoe County

Provincially Significant species include species tracked by the Natural Heritage Information Centre (NHIC) and those having a Provincial Rank of S1, S2, S3, or SH. Provincial Ranks are assigned by NHIC and are reported on the NHIC web-site: http://nhic.mnr.gov.on.ca/MNR/nhic/species/species_list.cfm

Uncommon designations are reported in: Bowles, R. L. 1998. Butterflies of Simcoe County
Bowles, R. L. 2006. Odonata of Simcoe County (revised).