APPENDIX "A"

STUDY TERMS OF REFERENCE

EARTH TECH DISCRIMINATORS

- ***Earth Tech's Ecological Services Group has an intimate knowledge of the study area's Environmental Resources through its work on the Environmental Impact Study for Toyota Motor Manufacturing North America's proposed Woodstock plant and CPR's future railway spur to service the study area.***

- ***Earth Tech's Ecological Services and Hydrotechnical Groups have excellent working relationships and reputations with the Upper Thames River (UTRCA) and Grand River Conservation Authorities.***

- ***Earth Tech has an excellent working relationship with planning and engineering staff at the City of Woodstock and Oxford County.***

- ***Earth Tech has a great deal of experience in conducting environmental, hydrotechnical, and engineering studies for industrial lands and Area Plans in general.***

RELEVANT STAFF

The study team for the Environmental Concerns/Issues Component will include the following Earth Tech staff:

Gary Epp, B.Sc., M.Sc., Ph.D. – *Ecological Services Manager & Senior Ecologist*

As head of the Ecological Services Group, Dr. Epp is directly responsible for the management and coordination of a wide range of assignments, including aquatic and terrestrial habitat studies, watershed management plans, wetland evaluations and assessments, restoration plans, and natural resources screening. He has obtained significant experience in, and an excellent reputation for conducting Natural Heritage/Environmental Studies for Area Plans. Dr. Epp also has extensive experience negotiating with a wide range of review agencies, naturalist groups and the public.

Dr. Epp has been responsible for the completion of the Environmental Impact Study and approvals for the Toyota Motor Manufacturing North America's proposed Woodstock Motor Manufacturing Facility. In this role, Dr. Epp has developed an excellent working relationship with key planning and engineering staff at the City of Woodstock and the County of Oxford. He has also been responsible for the completion of environmental surveys and assessments for the future Canadian Pacific Railway (CPR) rail spur proposed to service the Toyota Motor Manufacturing Facility.

For the Environmental Concerns/Issues Component the Design Study, Gary will be responsible for coordinating the tasks involved to complete the project, be the prime contact for meetings / public information centres and aid in the preparation of the overall report.

Daniel J. Knee, B.Sc. – *Fisheries Biologist*

Daniel is an aquatic biologist with Earth Tech's Ecological Services Group specializing in fish and fish habitat. He has conducted numerous fisheries related projects within Ontario, Saskatchewan, and Alberta. He is experienced at providing recommendations for conservation and mitigation strategies, including fisheries assessments and studies related to the management and restoration of fish habitat. Daniel is knowledgeable in current environmental and species at risk legislation, policies and procedures, and has fostered positive working relationships with government and non-government review agencies. Daniel has acquired his Class 1 Electrofishing Certificate (Crew Leader) and his Identification of Ontario Fishes Certificate from the Royal Ontario Museum (ROM). He is also an active member of the Southern Ontario Chapter of the American Fisheries Society and Trout Unlimited Canada (Toronto Chapter). .

As a result of providing aquatic input recently for both the Toyota Motor Manufacturing North America and Canadian Pacific Rail Environmental Impact Studies, Daniel has become very familiar with the existing aquatic conditions within the identified study area. This will enable him to promptly assess those areas which require additional field investigations as well as providing a thorough level of constraint analysis for the stretches of the Lampman-Lock Drain and Gordon Pittock Reservoir.

Jillian deMan, B.Sc. – *Ecologist*

Jillian is an ecologist with Earth Tech's Ecological Services Group. Her expertise includes, wetland and woodland evaluations, environmental impact assessments and flora/fauna surveys. She has also completed the Temperate Wetland Restoration Training Course with the Watershed Science Centre at Trent University and the Ministry of Natural Resources' Wetland Evaluation and Ecological Land Classification (ELC) systems and the Great Lakes Marsh Monitoring Program. With this extensive knowledge base and experience, Jillian is able to offer valuable scientific input for projects with natural heritage components.

Jillian is also intimately familiar with the natural heritage features within the study area for this Eastern Woodstock Design Study, where she has conducted fieldwork within the Vansittart Woods Provincially Significant Wetland, the Locally Significant Eastwoods Wetland, vegetation communities along the Gordon Pittock Reservoir and various vegetation communities scattered within proximity to Township Road 2 and 3. Fieldwork consisted of confirming and adjusting (where fit) wetland boundaries, defining vegetation communities into ELC units as per Ministry of Natural Resources guidelines, assessing community significance as well as identifying development constraints.

Having a supportive role, Jillian will also aid in the completion of the terrestrial/fisheries investigations as well as report preparation and background review and data collection.

REPRESENTATIVE PROJECTS

Environmental Studies within the Study Area

Toyota Motor Manufacturing North America, Proposed Woodstock Manufacturing Facility, Environmental Impact Study. Earth Tech's Ecological Services Group conducted a comprehensive study of ecological resources for the lands including and surrounding the future Toyota Motor Manufacturing Facility immediately east of the City of Woodstock, in Oxford County. A key component of the study involved the identification of environmental protection areas and constraints to development for the proposed industrial land use. The final deliverable of the EIS is an Environmental Management Plan that identifies environmental protection areas, buffer zones, restoration requirements, construction mitigation, approval requirements, and educational opportunities. The EIS final report is scheduled for completion by the end of January 2006.

Canadian Pacific Rail, Proposed Railway Spur for Toyota Lands – Woodstock. Earth Tech recently completed field investigations and assessments of vegetation, avifauna, and fish habitat for a proposed alignment for a railway spur that is to extend from the existing railway line north of the Gordon Pittock Reservoir to the Toyota Manufacturing Facility lands. The results of the field investigations are to be used for an Environmental Impact Study for the future railway spur.

Area Studies and Environmental Studies for Industrial Lands

City of London, W12A London Landfill Area Plan – Ecological Resources Study, London, Ontario. Earth Tech's Ecological Services Group conducted a comprehensive study of ecological resources for the lands including and surrounding the City of London's W12A Landfill Site. Studies included vegetation surveys and mapping, bird surveys, fisheries surveys and aquatic habitat assessments, and drainage evaluation. From the baseline data obtained for the study area, Earth Tech developed a Natural Heritage Strategy that identified areas for protection, preliminary buffer recommendations, and Environmental Impact Studies requirements. [2005].

City of London, Forest City Industrial Lands Subject Lands Status Report, London, Ontario. Earth Tech's Ecological Services Group completed a subject lands evaluation for proposed industrial lands in the south of London. Managed evaluation of woodland patches using the city's Significant Woodland Evaluation Guidelines. [2000].

City of Windsor, Environmental Evaluation for the Ojibway-Yawkey Industrial Coomunity Plan Area, Windsor, Ontario. Earth Tech's Ecological Services Group prepared an Environmental Evaluation Report (EER) as part of the Community Improvement Plan for the Ojibway-Yawkey Industrial Area. The EER presented a net effects analysis for future development adjacent to Candidate Natural Heritage Site # 38. Recommendations included site buffer zones, development guidelines, and recommendations for planning policies. [1996].

Area Studies - Other

Sifton Properties Limited, Bostwick East Area Plan – Natural Heritage Study, London, Ontario. Coordinated and prepared a natural heritage study report for the Bostwick East Area in southwest London. The study involved determination of constraints to development of the area for residential and commercial land uses. [2004].

Tricar Group / Colehill Enterprises, Uplands North Area Plan – Natural Heritage Study London, Ontario. Earth Tech's Ecological Services Group conducted and prepared a natural heritage study and environmental management plan (EMP) for the Uplands North Area. The study involved detailed ecological studies of locally significant wetlands, significant woodlands and watercourses. The success of the EMP and the Area Plan was a function of the facilitation of landowner participation and public consultation. [2002].

Lebovic Enterprises and Fieldgate Developments, Southeast Stouffville Functional Servicing Study, Stouffville, Ontario. Earth Tech provided an ecological and environmental management plan for the southeast quadrant of the town. An environmental impact study provided direction for the identification of areas requiring varying levels of protection and management. Recommendations included guidelines for the establishment of ecological buffers, development guidelines, and the identification of protection measures. [1999].

Town of Pelham, Urban Boundary Expansion Study, Ecological Resources, Pelham. Earth Tech conducted ecological investigations for an expansion study on behalf of the Town of Pelham in response to the town's growing need for additional urban area. As a component of the study ecological resources were investigated in order to determine constraints to development and needs for protection and preservation. The ecological resources study identified ESAs and on-site aquatic resources and provided guidelines for future development. [1998].

City of London & Sifton Properties, River Bend Community Plan, Natural Heritage Study and Environmental Management Plan, London, Ontario. Earth Tech's Ecological Services Group was responsible for the completion of a natural heritage study and an environmental management plan as a major component of the area planning process for the River Bend Area. The study formed the basis for an environmental management strategy and plan that identified natural areas for protection, areas where development could proceed, buffers for protection of natural areas, and management guidelines for areas adjacent to ESAs. [1997].

City of Brantford, Shellard Lane Draft Secondary Plan, Ecological Resources Assessment, Brantford, Ontario. Coordinated ecological studies for a draft secondary plan for the Shellard Lane area. A major component of the study involved the assessment and determination of a development limit line based on ecologically sensitive features, slope stability, and drainage. To determine appropriate setbacks from an adjacent wetland an environmental impact study was conducted as part of the overall study. [1996].

ENVIRONMENTAL CONCERNS/ISSUES WORK PROGRAM

The following tasks would be required for the completion of the Environmental Concerns/Issues Component of the New Eastern Woodstock Design Study.

Background Review/Data Collection

A significant amount of terrestrial and aquatic information has already been collected within the study area through previous work within the identified study area. ***Our approach will include a review of all secondary source woodlot, wetland, watercourse and wildlife habitat information*** (i.e. data and/or documentation from a variety of sources, including but not limited to the City of Woodstock, Oxford County, MNR, the Upper Thames River and Grand River Conservation Authorities, etc.). The MNR Natural Heritage Information Centre (NHIC) files will also be consulted to identify the presence of rare floral or faunal species and/or communities within the study area.

Data sources may include digital natural areas mapping (for woodlots, wetlands, and fish habitat information), digital aerial photography, forest resource inventory mapping, wetland evaluation records, and any other relevant reports.

The existing ecological background information that has already been collected for the study area consists of the following:

- Draft Environmental Impact Study for the TMMNA lands, Earth Tech January 2006
- Spring, Summer and Fall Season Natural Inventories for lands within proximity to the Gordon Pittock Reservoir for the proposed new rail spur for Canadian Pacific Rail
- Wetland Evaluation Records for the Vansittart Swamp Provincially Significant Wetland, Eastwoods Locally Significant Wetland, and BB2 Locally Significant Wetland

These studies will also be consulted to aid in the collection of additional relevant background information.

As noted above, the MNR Natural Heritage Information Centre (NHIC) files will also be consulted to confirm the presence/absence of any rare species in the system that could be adversely affected by any future proposed development. A preliminary screening of the NHIC website indicates that there are approximately eight (8) known vulnerable, threatened, or endangered species occurrences within (or partially within) the identified study area. Discussions with the local MNR district ecologist will confirm the identity of these species, specific habitat requirements, and whether the occurrences are recent or historical.

The Background Review component of our work program will include consultation with the relevant local agencies including, but not limited to, the City of Woodstock Planning and Development

Department, Upper Thames River Conservation Authority, Grand River Conservation Authority and the Ministry of Natural Resources.

Agency Consultation and Study Scoping

An Issues Scoping meeting will be held prior to the commencement of fieldwork to obtain any issues or concerns that any of the agencies might have. Those agencies that will be consulted include the Upper Thames River and Grand River Conservation Authorities, the City of Woodstock, the County of Oxford and the Ministry of Natural Resources.

Landowner Consent

Earth Tech assumes that the City of Woodstock will undertake the responsibility of contacting those landowners whose properties contain portions of natural heritage features to obtain their consent for field investigations.

Otherwise, Earth Tech will be pleased to undertake this task, however, with additional cost.

Field Investigations

General Study Area

Investigations will be focused on those areas which have not been studied by Earth Tech where initially, a series of quick visits to confirm these areas will be undertaken.

Terrestrial/Wetland Patch Investigations

Those areas requiring investigations include vegetation communities east of the Vansittart Swamp Provincially Significant Wetland, vegetation communities south of the Gordon Pittock Reservoir, the BB2 Locally Significant Wetland Complex, portions of the Eastwoods Locally Significant Wetland east of the Highway 401 and its surrounding vegetation communities.

Data from both the Toyota Motor Manufacturing North America and Canadian Pacific Rail Environmental Impact Studies will also be used for the Environmental Concerns/Issues Component of the New Eastern Woodstock Design Study.

The detailed investigations of the above-noted communities will include a one-season inventory as well as a description of the site conditions. Wildlife data (including avifauna, mammals, amphibians and reptiles) will be collected in conjunction with the terrestrial vegetation assessment, through the use of incidental clues (visual, auditory) and direct observations. However, *it is anticipated that the majority of wildlife occurrence data will be summarized from secondary source information,* such as the MNR Wetland Evaluation Records. In turn, Earth Tech's field staff will assess the habitat quality or evidence of habitat usage by identified species.

Aquatic Investigations

Earth Tech has completed aquatic investigations for portions of the Lampman-Lock Drain and segments of the Gordon Pittock Reservoir. Investigations included benthic invertebrate surveys, fish surveys (electrofishing and gee type minnow traps) and aquatic habitat assessments.

Those areas not investigated by Earth Tech staff include a stretch of the Lampman-Lock Drain west of County Road No. 4 to the Gordon Pittock Reservoir and the headwater portion north of the Toyota Motor Manufacturing site. Since Earth Tech has a recent data on the majority of the aquatic features within the study area, additional fieldwork would act as supplementary information to fill in any gaps.

Assessment of Significance

Application of City of Woodstock's Natural Heritage Policies and Guidelines

In order to identify components of the Natural Heritage System we will apply the policies and guidelines outlined in the County of Oxford's Official Plan Section 3.2.3.1 – "Natural Heritage System Components". The city's policies provide direction for the identification of Environmental Protection Areas (EPAs) which includes significant wetlands, significant portions of the habitat of *endangered or threatened species* and other significant wildlife habitat, fish habitat, significant valleylands, significant woodlands and significant life science areas of natural and scientific interest.

County of Oxford Official Plan policies, for-the-most-part, address the requirements of the Provincial Policy Statement with regards to Natural Heritage.

Identification of Constraints and Opportunities

The identification of constraints and opportunities will be based primarily on the Natural Heritage System components identified in the previously described task (Assessment of Significance) and the requirements for protection and management of those NHS components. The core constraints may include such features as fish habitat, significant woodlands, significant corridors, Provincially Significant Wetlands, etc. Constraints associated with those core constraints may include requirements for buffers, timing restrictions for construction, etc.

Opportunities will be identified where components of the Natural Heritage System require restoration, or where linkage between components may be enhanced, etc.

Ecological, or Natural Heritage constraints and opportunities will be mapped for the study area in order to allow for an overlay with constraints from the other Background Component Studies.

Environmental Impact Study Requirements

A specific component of the Natural Heritage Strategy will be the provision of Environmental Impact Study (EIS) requirements. Earth Tech will provide identification of those areas, within the study area that will require Environmental Impact Studies prior to the approval of development or site alteration. The requirements for EISs will be consistent with the county's Official Plan policy as outlined in Section 3.2.6 of the OP.

While the County of Oxford's EIS Guidelines provide a protocol for EIS preparation, the Environmental Component of the New Eastern Woodstock Design Study will outline the issues and concerns, to be addressed by EISs, relevant to specific features and areas within the study area. This will enable future EISs for the area to be scoped prior to study initiation.

Official Plan Policy Recommendations

Where appropriate the Natural Heritage Strategy will provide the basis for recommendations regarding land use for those areas within and immediately adjacent to the landfill site property. Recommendations may include the re-designation of unidentified natural communities to open space, environmental protection, agricultural or other appropriate land use designations.

Report Preparation

We propose that the Environmental Concerns/Issues Component of the New Eastern Woodstock Design Study be presented in one document entitled the "New Eastern Woodstock Design Study - Natural Heritage Background Study". The report document will detail and summarize the tasks undertaken (as outlined above), provide mapping of the information gathered and of the constraints and opportunities identified, and will outline the Natural Heritage Strategy for the study area.

APPENDIX "B"

FLORAL SPECIES LIST

EARTH TECH (CANADA) INC.
VASCULAR PLANT SPECIES LIST

SITE: Section 1 - Vansittart Woods PSW
EO: 92422
DATE: Spring/Summer 2006

SCIENTIFIC NAME	COMMON NAME	FAMILY	CC	CW	GRANK	SRANK	WEED	COSEWIC	MNR	REG	SWD 6-2	SWT 3-2	MAS 2-1	SWD7-2	MAS2-1	FOD 7-2	SAM 1	SWD 6-2
Arisaema triphyllum	Swamp Jack-in-the-pulpit	ARACEAE	5	-2	G5	S5					x		x					
Betula alleghaniensis	Yellow Birch	BETULACEAE	6	0	G5	S5					x		x				x	
Caltha palustris	Marsh Marigold	RANUNCULACEAE	5	-5	G5	S5					x		x					
Carex lacustris	Lake-bank Sedge	CYPERACEAE	5	-5	G5	S5						x						
Carpinus caroliniana	American Hornbeam	BETULACEAE	6	0	G5	S5							x				x	
Cornus stolonifera	Red-osier Dogwood	CORNACEAE	2	-3	G5	S5						x						
Eupatorium maculatum	Spotted Joe-pye Weed	ASTERACEAE	3	-5	G5	S5						x						
Fraxinus nigra	Black Ash	OLEACEAE	7	-4	G5	S5						x	x					
Fraxinus pennsylvanica	Red Ash/Green Ash	OLEACEAE	3	-3	G5	S5							x		x			
Impatiens capensis	Spotted Jewel-weed	BALSAMINACEAE	4	-3	G5	S5					x	x	x					
Juglans nigra	Black Walnut	JUGLANDACEAE	5	3	G5	S4							x					
Onoclea sensibilis	Sensitive Fern	DRYOPTERIDACEAE	4	-3	G5	S5					x	x	x		x		x	
Ostrya virginiana	Eastern Hop-hornbeam	BETULACEAE	4	4	G5	S5							x					
Platyclinis filiformis	Small Purple fringed orchid	ORCHIDACEAE										x						
Populus tremuloides	Quaking Aspen	SALICACEAE	2	0	G5	S5					x		x		x		x	
Prunus serotina	Wild Black Cherry	ROSACEAE	3	3	G5	S5							x				x	
Rhus radicans ssp.	Poison Ivy	ANACARDIACEAE											x					
Salix sp.	Willow speices	SALICACEAE										x						
Sambucus canadensis	Common Elderberry	CAPRIFOLIACEAE	5	-2	G5	S5						x						
Typha sp.	Cattail species	TYPHACEAE														x		
Typha latifolia	Broad-leaf Cattail	TYPHACEAE	3	-5	G5	S5							x	x				
Ulmus americana	American Elm	ULMACEAE	3	-2	G5?	S5					x		x		x		x	
Acer rubrum	Red Maple	ACERACEAE	4	0	G5	S5					x						x	
Acer saccharinum	Silver Maple	ACERACEAE	5	-3	G5	S5					x				x		x	
Carex intumescens	Bladder Sedge	CYPERACEAE	6	-4	G5	S5											x	
Carex sp.	Sedge species	CYPERACEAE											x	x	x			
Cypripedium calceolus var. parviflorum	Small Yellow Lady's-slipper	ORCHIDACEAE	7	-1	G5	S5								x				
Iris versicolor	Blueflag	IRIDACEAE	5	-5	G5	S5					x	x					x	
Lysimachia nummularia	Creeping Jennie	PRIMULACEAE		-4	G?	SE5	-3						x					
Nymphaea odorata	American Water-lily	NYMPHAEACEAE	5	-5	G5	S5										x		
Phalaris arundinacea	Reed Canary Grass	POACEAE	0	-4	G5	S5							x	x		x	x	
Populus deltoides	Eastern Cottonwood	SALICACEAE	4	-1	G5	S5									x			
Potamogeton Sp.	Pondweed species	POTAMOGETONACEAE											x	x				
Solanum dulcamara	Climbing Nightshade	SOLANACEAE		0	G?	SE5	-2					x						
Spiraea alba	Narrow-leaved Meadow-sweet	ROSACEAE	3	-4	G5	S5						x						
Symplocarpus foetidus	Skunk Cabbage	ARACEAE	7	-5	G5	S5							x					
Thuja occidentalis	Northern White Cedar	CUPRESSACEAE	4	-3	G5	S5							x					

Legend

CC - Coefficient of Conservatism: each native taxon is assigned a rank of 0 to 10 based on its degree of fidelity to a range of synecological parameters. Plants found in a wide variety of plant communities, including disturbed sites, were assigned ranks of 0 to 3. Plants that typically are associated with a specific plant community, but tolerate moderated disturbance, were assigned ranks of 4 to 6. Rankings of 7 to 8 were applied to those plants associated with a plant community in an advanced successional stage that has undergone minor disturbance. Those plants with high degrees of fidelity to a narrow range of synecological parameters were assigned a value of 9 to 10.

CW - Coefficient of Wetness: A wetness index which gives an indication of where plant species are typically found. Wetland values are between -5 and 5.

-5: Occurs almost always in wetlands under natural conditions
-4 to -2: Usually occurs in wetlands, but occasionally found in non-wetlands
-1 to 1: Equally likely to occur in wetlands or non-wetlands
2 to 4: Occasionally occurs in wetlands, but usually occurs in non-wetlands
5: Occurs almost never in wetlands under natural conditions

MNR Global Rank
G1 -- Extremely rare; < 5 occurences
G2 -- Very rare: 5-20 occurences
G3 -- Rare to uncommon; 20-100 occurences
G4 -- Common; >100 occurences
G5 -- Very common
? -- Follows a rank and denotes rank is tentatively assigned (ie. G4?)
G? -- Unranked
T -- Denotes that the rank applies to a subspecies or variety

COSEWIC - Committee on the Status of Endangered Wildlife in Canada

REG - Regionally Rare Rank
R - Native and Rare, based on 5 or fewer recent stations
R1 - 1 recent station
R2 - 2 recent stations
R3 - 3 recent station
R4 - 4 recent stations
R5 - 5 recent stations
Rh - known only from HISTORIC (pre-1964) records
VU - Native and Very Uncommon, based on 5 to 8 recent stations
U - Native and Uncommon, based on 9 to 15 recent stations
C - Native and Common, based on more that 15 recent stations I - Introduced and persisting outside cultivation

Weed - Weediness Index: The Weediness Index quatifies the potential invasiveness of non-native plants, and, in combination with the percentage of non-native plants can be used as an indicator of disturbance. Values between -1 and -3 have been assigned to most non-native species based on the potential impact each species can have in a natural area.

-1 little or no impact on natural areas
-2 occasional impacts on natural areas, generally infrequent of localized
-3 major potential impacts on natural areas

MNR Provincial Rank
S1 -- Extremely rare in Ontario; < 5 occurrences
S2 -- Very rare in Ontario; 5 - 20 occurrences
S3 -- Rare to uncommon in Ontario; 20 - 100 occurrences
S4 -- Common in Ontario; > 100 occurrences
S5 -- Very common in Ontario
SE -- Exotic
? -- Follows a rank and denotes rank is tentatively assigned (ie. S4?)
S? -- Unranked

Wetland Communities

M - March Community
S - Swamp Community

EARTH TECH (CANADA) INC.
VASCULAR PLANT SPECIES LIST

SITE: Section 2 - Eastwood Non-PSW
EO: 92422
DATE: Spring 2005/ Spring 2006

SCIENTIFIC NAME	COMMON NAME	FAMILY	CC	CW	GRANK	SRANK	WEED	COSEWIC	MNR	REG	SWT 2-9*	MAS 2-4*	MAS 2-1*	Willow Thicket**	Willow Thicket with dead deciduous	Ash/Poplar Swamp**	Forb Marsh**	Meadow Marsh**	Moss Marsh**
mixed herbs																			
Arisaema triphyllum	Swamp Jack-in-the-pulpit	ARACEAE	5	-2	G5	S5					x						x		
Carex lacustris	Lake-bank Sedge	CYPERACEAE	5	-5	G5	S5						x							
Cornus sp.	Dogwood species	CORNACEAE												x		x			
Cornus racemosa	Gray dogwood	CORNACEAE									x		x						
Cornus stolonifera	Red-osier Dogwood	CORNACEAE	2	-3	G5	S5					x					x			
Fraxinus sp.	Ash species	OLEACEAE																	
Fraxinus pennsylvanica	Red Ash/Green Ash	OLEACEAE	3	-3	G5	S5					x		x						
Impatiens capensis	Spotted Jewel-weed	BALSAMINACEAE	4	-3	G5	S5					x			x	x				
Onoclea sensibilis	Sensitive Fern	DRYOPTERIDACEAE	4	-3	G5	S5					x			x	x				
Salix sp.	Willow speices	SALICACEAE												x	x				
Typha sp.	Cattail species	TYPHACEAE															x	x	x
Typha latifolia	Broad-leaf Cattail	TYPHACEAE	3	-5	G5	S5							x						
Ulmus sp.	Elm species	ULMACEAE												x					
Vitis sp.	Grape species	VITACEAE														x			
Acer saccharinum	Silver Maple	ACERACEAE	5	-3	G5	S5									x				
Alisma plantago-aquatica	Broadleaved Water-plantain	ALISMATACEAE	3	-5	G5	S5											x		
Anemone canadensis	Canada Anemone	RANUNCULACEAE	3	-3	G5	S5					x								
Carex crinita	Fringed Sedge	CYPERACEAE	6	-4	G5	S5						x							
Lemna minor	Duck weed											x	x				x		
Carex pseudo-cyperus	Cyperus-like Sedge	CYPERACEAE	6	-5	G5	S5						x							
Carex sp.	Sedge species	CYPERACEAE											x			x		x	x
Cornus alternifolia	Alternate-leaf Dogwood	CORNACEAE	6	5	G5	S5					x							x	
Daucus carota	Wild Carrot	APIACEAE		5	G?	SE5	-2												
Iris versicolor	Blueflag	IRIDACEAE	5	-5	G5	S5					x							x	
Phalaris arundinacea	Reed Canary Grass	POACEAE	0	-4	G5	S5					x		x						
Populus sp.	Poplar species.	SALICACEAE														x			
Ribes americanum	Wild Black Currant	GROSSULARIACEAE	4	-3	G5	S5					x								
Symplocarpus foetidus	Skunk Cabbage	ARACEAE	7	-5	G5	S5					x								
	Moss species																		x
	Grass species	GRAMINEAE												x		x	x	x	x

*Note: Information taken from Eastwood Wetland Evaluation

Legend

CC - Coefficient of Conservatism: each native taxon is assigned a rank of 0 to 10 based on its degree of fidelity to a range of synecological parameters. Plants found in a wide variety of plant communities, including disturbed sites, were assigned ranks of 0 to 3. Plants that typcially are associated with a specific plant community, but tolerate moderated disturbance, were assigned ranks of 4 to 6. Rankings of 7 to 8 were applied to those plants associated with a plant community in an advanced successional stage that has undergone minor disturbance. Those plants with high degrees of fidelity to a narrow range of synecological parameters were assigned a value of 9 to 10.

CW - Coefficient of Wetness: A wetness index which gives an indication of where plant species are typically found. Wetland values are between -5 and 5.

-5: Occurs almost always in wetlands under natural conditions
-4 to -2: Usually occurs in wetlands, but occasionally found in non-wetlands
-1 to 1: Equally likely to occur in wetlands or non-wetlands
2 to 4: Occasionally occurs in wetlands, but usually occurs in non-wetlands
5: Occurs almost never in wetlands under natural conditions

Weed - Weediness Index: The Weediness Index quatifies the potential invasiveness of non-native plants, and, in combination with the percentage of non-native plants can be used as an indicator of disturbance. Values between -1 and -3 have been assigned to most non-native species based on the potential impact each species can have in a natural area.

-1 little or no impact on natural areas
-2 occasional impacts on natural areas, generally infrequent of localized
-3 major potential impacts on natural areas

MNR Global Rank

G1 – Extremely rare; < 5 occurences
G2 – Very rare; 5-20 occurences
G3 – Rare to uncommon; 20-100 occurences
G4 – Common; >100 occurences
G5 – Very common
? – Follows a rank and denotes rank is tentatively assigned (ie. G4?)
G? – Unranked
T – Denotes that the rank applies to a subspecies or variety

COSEWIC - Committee on the Status of Endangered Wildlife in Canada

REG - Regionally Rare Rank

R - Native and Rare, based on 5 or fewer recent stations
R1 - 1 recent station
R2 - 2 recent stations
R3 - 3 recent station
R4 - 4 recent stations
R5 - 5 recent stations
Rh - known only from HISTORIC (pre-1964) records
VU - Native and Very Uncommon, based on 5 to 8 recent stations
U - Native and Uncommon, based on 9 to 15 recent stations
C - Native and Common, based on more that 15 recent stations I - Introduced and persisting outside cultivation

MNR Provincial Rank

S1 – Extremely rare in Ontario: < 5 occurrences
S2 – Very rare in Ontario; 5 - 20 occurrences
S3 – Rare to uncommon in Ontario; 20 - 100 occurrences
S4 – Common in Ontario: > 100 occurrences
S5 – Very common in Ontario
SE – Exotic
? – Follows a rank and denotes rank is tentatively assigned (ie. S4?)
S? – Unranked

Wetland Communities

M - March Community
S - Swamp Community

EARTH TECH (CANADA) INC.
VASCULAR PLANT SPECIES LIST

SITE: Section 3 - BB2D Non-PSW
EO: 92422
DATE: Spring 2006

SCIENTIFIC NAME	COMMON NAME	FAMILY	CC	CW	GRANK	SRANK	WEED	COSEWIC	MNR	REG	MAM 3-2	MAM 3-2	MAS	SWT	SWT 2-9	SWD	Open Water	CUT 1-4	CUT 1-4/CUM1-1	FOD 6-4	FOD 5	CUT 1	CUP3
Acer negundo	Box Elder	ACERACEAE	0	-2	G5	S5					x												
Acer saccharinum	Silver Maple	ACERACEAE	5	-3	G5	S5																	
Acer saccharum ssp. saccharum	Sugar Maple	ACERACEAE	4	3	G5T?	S5							x			x		x					
Achillea millefolium ssp. millefolium	Yarrow	ASTERACEAE		3	G5T?	SE	-1																
Alliaria petiolata	Garlic Mustard	BRASSICACEAE		0	G?	SE5	-3											x					
Antennaria neglecta	Field Pussytoes	ASTERACEAE	3	5	G5	S5														x			
Arisaema triphyllum	Swamp Jack-in-the-pulpit	ARACEAE	5	-2	G5	S5												x					
Carex sp.	Sedge species	CYPERACEAE																			x		
Cornus racemosa	Gray Dogwood	CORNACEAE											x		x	x							
Cornus sp.	Dogwood species	CORNACEAE										x			x			x					
Cornus stolonifera	Red-osier Dogwood	CORNACEAE	2	-3	G5	S5					x		x										
Crataegus monogyna	A Hawthorn	ROSACEAE		5	G5	SE5	-1					x		x									
Crataegus sp.	Hawthorn species	ROSACEAE																x					
Cypripedium calceolus var. parviflorum	Small Yellow Lady's-slipper	ORCHIDACEAE	7	-1	G5	S5									x							x	
Equisetum pratense	Meadow Horsetail	EQUISETACEAE	8	-3	G5	S5									x								
Equisetum sp.	Equisetum sp.	EQUISETACEAE												x									
Erythronium americanum	Yellow Trout-lily	LILIACEAE	5	5	G5	S5									x								
Euonymus obovata	Running Strawberry-bush	CELASTRACEAE	6	5	G5	S5															x		
Fragaria virginiana	Virginia Strawberry	ROSACEAE	2	1	G5	S5												x					
Fraxinus americana	White Ash	OLEACEAE	4	3	G5	S5															x		
Fragaria sp.	Strawberry species	ROSACEAE																					
Fraxinus sp.	Ash species	OLEACEAE																				x	
Impatiens capensis	Spotted Jewel-weed	BALSAMINACEAE	4	-3	G5	S5								x								x	
Iris versicolor	Blueflag	IRIDACEAE	5	-5	G5	S5							x	x	x								
Thuja	Cedar species	CUPRESSACEAE																					
Malus pumila	Common Apple	ROSACEAE		5	G5	SE5	-1												x				
Mentha sp.	Mint species	LAMIACEAE																x					
Onoclea sensibilis	Sensitive Fern	DRYOPTERIDACEAE	4	-3	G5	S5								x									
Parthenocissus quinquefolia	Virginia Creeper	VITACEAE	6	1	G5	S4?									x	x							
Phalaris arundinacea	Reed Canary Grass	POACEAE	0	-4	G5	S5					x		x								x		
Pinus sp.	Pine species	PINACEAE										x		x									
Potamogeton sp	Pondweed species	POTAMOGETONACEAE																					x
Prunus serotina	Wild Black Cherry	ROSACEAE	3	3	G5	S5							x										
Prunus virginiana	Choke Cherry	ROSACEAE	2	1	G5	S5									x			x		x	x	x	
Rhamnus cathartica	Buckthorn	RHAMNACEAE		3	G?	SE5	-3												x				
Rubus idaeus	Common Red Raspberry	ROSACEAE	0	-2	G5	S5												x				x	
Salix sp.	Willow species	SALICACEAE																x					
Sambucus canadensis	Common Elderberry	CAPRIFOLIACEAE	5	-2	G5	S5					x			x	x								
Solidago sp.	Goldenrod species	ASTERACEAE									x			x									
Taraxacum officinale	Brown-seed Dandelion	ASTERACEAE		3	G5	SE5	-2				x								x				
Tilia americana	American Basswood	TILIACEAE	4	3	G5	S5																	
Trifolium sp.	Clover species	FABACEAE									x										x		
Trillium sp.	Trillium sp.																				x		
Typha sp.	Cattail species	TYPHACEAE									x												
Ulmus americana	American Elm	ULMACEAE	3	-2	G5?	S5						x		x									
Viola cucullata	Marsh Blue Violet	VIOLACEAE	5	-5	G4G5	S5														x		x	
Vitis sp.	Grape species	VITACEAE													x	x							
																		x					

Legend

CC - Coefficient of Conservatism: each native taxon is assigned a rank of 0 to 10 based on its degree of fidelity to a range of synecological parameters. Plants found in a wide variety of plant communities, including disturbed sites, were assigned ranks of 0 to 3. Plants that typically are associated with a specific plant community, but tolerate moderated disturbance, were assigned ranks of 4 to 6. Rankings of 7 to 8 were applied to those plants associated with a plant community in an advanced successional stage that has undergone minor disturbance. Those plants with high degrees of fidelity to a narrow range of synecological parameters were assigned a value of 9 to 10.

CW - Coefficient of Wetness: A wetness index which gives an indication of where plant species are typically found. Wetland values are between -5 and 5.

-5: Occurs almost always in wetlands under natural conditions
-4 to -2: Usually occurs in wetlands, but occasionally found in non-wetlands
-1 to 1: Equally likely to occur in wetlands or non-wetlands
2 to 4: Occasionally occurs in wetlands, but usually occurs in non-wetlands
5: Occurs almost never in wetlands under natural conditions

Weed - Weediness Index: The Weediness Index quatifies the potential invasiveness of non-native plants, and, in combination with the percentage of non-native plants can be used as an indicator of disturbance. Values between -1 and -3 have been assigned to most non-native species based on the potential impact each species can have in a natural area.

-1 little or no impact on natural areas
-2 occasional impacts on natural areas, generally infrequent of localized
-3 major potential impacts on natural areas

MNR Global Rank
G1 -- Extremely rare; < 5 occurences
G2 -- Very rare; 5-20 occurences
G3 -- Rare to uncommon; 20-100 occurences
G4 -- Common; >100 occurences
G5 -- Very common
? -- Follows a rank and denotes rank is tentatively assigned (ie. G4?)
G? -- Unranked
T -- Denotes that the rank applies to a subspecies or variety

COSEWIC -Committee on the Status of Endangered Wildlife in Canada

REG - Regionally Rare Rank
R - Native and Rare, based on 5 or fewer recent stations
R1 - 1 recent station
R2 - 2 recent stations
R3 - 3 recent station
R4 - 4 recent stations
R5 - 5 recent stations
Rh - known only from HISTORIC (pre-1964) records
VU - Native and Very Uncommon, based on 5 to 8 recent stations
U - Native and Uncommon, based on 9 to 15 recent stations
C - Native and Common, based on more that 15 recent stations I - Introduced and persisting outside cultivation

MNR Provincial Rank
S1 -- Extremely rare in Ontario; < 5 occurrences
S2 -- Very rare in Ontario; 5 - 20 occurrences
S3 -- Rare to uncommon in Ontario; 20 - 100 occurrences
S4 -- Common in Ontario; > 100 occurrences
S5 -- Very common in Ontario
SE -- Exotic
? -- Follows a rank and denotes rank is tentatively assigned (ie. S4?)
S? -- Unranked

Wetland Communities

M - March Community
S - Swamp Community

EARTH TECH (CANADA) INC.
VASCULAR PLANT SPECIES LIST

SITE: Section 4 - UTRCA Lands
EO: 92422
DATE: Summer 2006

SCIENTIFIC NAME	COMMON NAME	FAMILY	CC	CW	GRANK	SRANK	WEED	COSEWIC	MNR	REG	CUP 3-3	CUP 1-3		FOD 5-7	FOD 8-1	MAM 2-6 / MAS 2 / CUM 1-1		MAS 2
Acer saccharum ssp. saccharum	Sugar Maple	ACERACEAE	4	3	G5T?	S5							x					
Allium burdickii	Narrow-leaved Wild Leek	LILIACEAE	9	3	G4G5	S1?				R2			x					
Carex lacustris	Lake-bank Sedge	CYPERACEAE	5	-5	G5	S5										x		
Carya cordiformis	Bitter-nut Hickory	JUGLANDACEAE	6	0	G5	S5							x					
Erythronium americanum	Yellow Trout-lily	LILIACEAE	5	5	G5	S5							x					
Fagus grandifolia	American Beech	FAGACEAE	6	3	G5	S5							x					
Fraxinus sp	Ash species	OLEACEAE											x					
Juglans nigra	Black Walnut	JUGLANDACEAE	5	3	G5	S4						x						
Onoclea sensibilis	Sensitive Fern	DRYOPTERIDACEAE	4	-3	G5	S5								x				
Podophyllum peltatum	May Apple	BERBERIDACEAE	5	3	G5	S5							x	x				
Populus tremuloides	Quaking Aspen	SALICACEAE	2	0	G5	S5								x				
Prunus serotina	Wild Black Cherry	ROSACEAE	3	3	G5	S5							x	x				
Rhamnus cathartica	Buckthorn	RHAMNACEAE		3	G?	SE5	-3						x					
Salix sp.	Willow speices	SALICACEAE												x				
Sanguinaria canadensis	Bloodroot	PAPAVERACEAE	5	4	G5	S5							x					
Sonchus	Goldenrod sp.	ASTERACEAE														x		
Typha latifolia	Broad-leaf Cattail	TYPHACEAE	3	-5	G5	S5											x	
Alisma plantago-aquatica	Broadleaved Water-plantain	ALISMATACEAE	3	-5	G5	S5										x		
Anemone canadensis	Canada Anemone	RANUNCULACEAE	3	-3	G5	S5							x					
Asclepias syriaca	Kansas Milkweed	ASCLEPIADACEAE	0	5	G5	S5										x		
Calamagrostis canadensis	Blue-joint Reedgrass	POACEAE	4	-5	G5	S5										x		
Carex sp.	Sedge species	CYPERACEAE											x					
Carex stipata	Stalk-grain Sedge	CYPERACEAE	3	-5	G5	S5										x		
Erigeron philadelphicus	Philadelphia Fleabane	ASTERACEAE	1	-3	G5	S5										x		
Lemna sp.	Duckweed species	LEMNACEAE														x		
Pinus sylvestris	Scotch Pine	PINACEAE		5	G?	SE5	-3				x							
Ribes americanum	Wild Black Currant	GROSSULARIACEAE	4	-3	G5	S5							x					
Ribes triste	Swamp Red Currant	GROSSULARIACEAE	6	-5	G5	S5							x					
Symplocarpus foetidus	Skunk Cabbage	ARACEAE	7	-5	G5	S5								x				
Thuja occidentalis	Northern White Cedar	CUPRESSACEAE	4	-3	G5	S5						x						
Tilia americana	American Basswood	TILIACEAE	4	3	G5	S5							x	x				
Typha angustifolia	Narrow-leaved Cattail	TYPHACEAE	3	-5	G5	S5											x	

Legend

CC - Coefficient of Conservatism: each native taxon is assigned a rank of 0 to 10 based on its degree of fidelity to a range of synecological parameters. Plants found in a wide variety of plant communities, including disturbed sites, were assigned ranks of 0 to 3. Plants that typcially are associated with a specific plant community, but tolerate moderated disturbance, were assigned ranks of 4 to 6. Rankings of 7 to 8 were applied to those plants associated with a plant community in an advanced successional stage that has undergone minor disturbance. Those plants with high degrees of fidelity to a narrow range of synecological parameters were assigned a value of 9 to 10.

CW - Coefficient of Wetness: A wetness index which gives an indication of where plant species are typically found. Wetland values are between -5 and 5.

-5: Occurs almost always in wetlands under natural conditions
-4 to -2: Usually occurs in wetlands, but occasionally found in non-wetlands
-1 to 1: Equally likely to occur in wetlands or non-wetlands
2 to 4: Occasionally occurs in wetlands, but usually occurs in non-wetlands
5: Occurs almost never in wetlands under natural conditions

Weed - Weediness Index: The Weediness Index qualifies the potential invasiveness of non-native plants, and, in combination with the percentage of non-native plants can be used as an indicator of disturbance. Values between -1 and -3 have been assigned to most non-native species based on the potential impact each species can have in a natural area.

-1 little or no impact on natural areas
-2 occasional impacts on natural areas, generally infrequent of localized
-3 major potential impacts on natural areas

MNR Global Rank

G1 -- Extremely rare; < 5 occurences
G2 -- Very rare; 5-20 occurences
G3 -- Rare to uncommon; 20-100 occurences
G4 -- Common; >100 occurences
G5 -- Very common
? -- Follows a rank and denotes rank is tentatively assigned (ie. G4?)
G? -- Unranked
T -- Denotes that the rank applies to a subspecies or variety

COSEWIC - Committee on the Status of Endangered Wildlife in Canada

REG - Regionally Rare Rank

R - Native and Rare, based on 5 or fewer recent stations
R1 - 1 recent station
R2 - 2 recent stations
R3 - 3 recent station
R4 - 4 recent stations
R5 - 5 recent stations
Rh - known only from HISTORIC (pre-1964) records
VU - Native and Very Uncommon, based on 5 to 8 recent stations
U - Native and Uncommon, based on 9 to 15 recent stations
C - Native and Common, based on more that 15 recent stations I - Introduced and persisting outside cultivation

MNR Provincial Rank

S1 -- Extremely rare in Ontario; < 5 occurrences
S2 -- Very rare in Ontario; 5 - 20 occurrences
S3 -- Rare to uncommon in Ontario; 20 - 100 occurrences
S4 -- Common in Ontario; > 100 occurrences
S5 -- Very common in Ontario
SE -- Exotic
? -- Follows a rank and denotes rank is tentatively assigned (ie. S4?)
S? -- Unranked

Wetland Communities

M - March Community
S - Swamp Community

EARTH TECH (CANADA) INC.
VASCULAR PLANT SPECIES LIST

SITE: Section 5 - Miscellaneous Patches East of 401
EO: 92422
DATE: Summer 2006

SCIENTIFIC NAME	COMMON NAME	FAMILY	CC	CW	GRANK	SRANK	WEED	COSEWIC	MNR	REG	CUP 3-2	FOD 8-1	CUW 1	CUM 1-1	FOD 6-5	SWD 3-2	FOD 5-2	FOD 5-7
Acer negundo	Box Elder	ACERACEAE	0	-2	G5	S5						x	x					
Acer rubrum	Red Maple	ACERACEAE	4	0	G5	S5									x			
Acer saccharinum	Silver Maple	ACERACEAE	5	-3	G5	S5							x		x			
Acer saccharum ssp. saccharum	Sugar Maple	ACERACEAE	4	3	G5T?	S5								x		x	x	
Achillea millefolium ssp. millefolium	Yarrow	ASTERACEAE		3	G5T?	SE	-1						x					
Actaea rubra	Red Baneberry	RANUNCULACEAE	5	5	G5	S5										x	x	
Agrimonia sp	Agrimony species	ROSACEAE											x	x				
Anemone canadensis	Canada Anemone	RANUNCULACEAE	3	-3	G5	S5								x				
Arisaema triphyllum	Swamp Jack-in-the-pulpit	BRASSICACEAE	7	5	G5	S4							x	x				
Aruncus dioicus	Common Goatsbeard	ROSACEAE		3	G5	SE1	-1							x				
Boehmeria cylindrica	False Nettle	URTICACEAE	4	-5	G5	S5										x	x	
Caltha palustris	Marsh Marigold	RANUNCULACEAE	5	-5	G5	S5									x			
Carpinus caroliniana	American Hornbeam	BETULACEAE	6	0	G5	S5								x	x			
Carya cordiformis	Bitter-nut Hickory	JUGLANDACEAE	6	0	G5	S5							x	x				
Carya ovata	Shag-bark Hickory	JUGLANDACEAE	6	3	G5	S5								x				
Cichorium intybus	Chicory	ASTERACEAE		5	G?	SE5	-1							x				
Circaea alpina	Small Enchanter's Nightshade	ONAGRACEAE	6	-3	G5	S5						x						
Cornus foemina	Stiff Dogwood	CORNACEAE	2	-2	G5	S5						x						
Crataegus mollis	A Hawthorn	ROSACEAE	4	-2	G5	S5								x			x	
Crataegus punctata	Dotted Hawthorn	ROSACEAE	4	5	G5	S5										x		
Crataegus sp.	Hawthorn species	ROSACEAE											x					
Daucus carota	Wild Carrot	APIACEAE		5	G?	SE5	-2						x	x				
Fagus grandifolia	American Beech	FAGACEAE	6	3	G5	S5								x		x		
Fragaria virginiana	Virginia Strawberry	ROSACEAE	2	1	G5	S5							x					
Fraxinus americana	White Ash	OLEACEAE	4	3	G5	S5								x		x	x	
Fraxinus pennsylvanica	Red Ash/Green Ash	POACEAE		5	G5	SE2						x	x	x	x			
Geum aleppicum	Yellow Avens	ROSACEAE	2	-1	G5	S5												
Mentha arvensis	Corn Mint	LAMIACEAE	3	-3	G5	S5							x					
Pilea pumila	Canada Clearweed	URTICACEAE	5	-3	G5	S5								x	x			
Pinus banksiana	Jack Pine	PINACEAE	9	3	G5	S5				x								
Pinus strobus	Eastern White Pine	PINACEAE	4	3	G5	S5				x								
Pinus sylvestris	Scotch Pine	PINACEAE		5	G?	SE5	-3			x								
Podophyllum peltatum	May Apple	BERBERIDACEAE	5	3	G5	S5								x				
Populus deltoides	Eastern Cottonwood	SALICACEAE	4	-1	G5	S5						x		x				
Populus tremuloides	Quaking Aspen	SALICACEAE	2	0	G5	S5						x		x				
Prunus serotina	Wild Black Cherry	ROSACEAE	3	3	G5	S5								x			x	
Rhus typhina	Staghorn Sumac	ANACARDIACEAE	1	5	G5	S5							x	x				
Solidago canadensis	Canada Goldenrod	ASTERACEAE	1	3	G5	S5						x						
Syringa vulgaris	Common Lilac	OLEACEAE		5	G?	SE5	-2						x					
Taraxacum officinale	Brown-seed Dandelion	ASTERACEAE		3	G5	SE5	-2					x						
Tilia americana	American Basswood	TILIACEAE	4	3	G5	S5						x		x				
Trifolium pratense	Red Clover	FABACEAE		2	G?	SE5	-2					x						
Trifolium repens	White Clover	FABACEAE		2	G?	SE5	-1					x						
Ulmus americana	American Elm	ULMACEAE	3	-2	G5?	S5									x			
Vicia cracca	Tufted Vetch	FABACEAE		5	G?	SE5	-1						x					
Vitis riparia	Riverbank Grape	VITACEAE	0	-2	G5	S5						x	x	x	x			

Legend

CC - Coefficient of Conservatism: each native taxon is assigned a rank of 0 to 10 based on its degree of fidelity to a range of synecological parameters. Plants found in a wide variety of plant communities, including disturbed sites, were assigned ranks of 0 to 3. Plants that typcially are associated with a specific plant community, but tolerate moderated disturbance, were assigned ranks of 4 to 6. Rankings of 7 to 8 were applied to those plants associated with a plant community in an advanced successional stage that has undergone minor disturbance. Those plants with high degrees of fidelity to a narrow range of synecological parameters were assigned a value of 9 to 10.

CW - Coefficient of Wetness: A wetness index which gives an indication of where plant species are typically found. Wetland values are between -5 and 5.

-5: Occurs almost always in wetlands under natural conditions
-4 to -2: Usually occurs in wetlands, but occasionally found in non-wetlands
-1 to 1: Equally likely to occur in wetlands or non-wetlands
2 to 4: Occasionally occurs in wetlands, but usually occurs in non-wetlands
5: Occurs almost never in wetlands under natural conditions

MNR Global Rank
G1 -- Extremely rare; < 5 occurences
G2 -- Very rare; 5-20 occurences
G3 -- Rare to uncommon; 20-100 occurences
G4 -- Common; >100 occurences
G5 -- Very common
? -- Follows a rank and denotes rank is tentatively assigned (ie. G4?)
G? -- Unranked
T -- Denotes that the rank applies to a subspecies or variety

COSEWIC - Committee on the Status of Endangered Wildlife in Canada

REG - Regionally Rare Rank
R - Native and Rare, based on 5 or fewer recent stations
R1 - 1 recent station
R2 - 2 recent stations
R3 - 3 recent station
R4 - 4 recent stations
R5 - 5 recent stations
Rh - known only from HISTORIC (pre-1964) records
VU - Native and Very Uncommon, based on 5 to 8 recent stations
U - Native and Uncommon, based on 9 to 15 recent stations
C - Native and Common, based on more that 15 recent stations I - Introduced and persisting outside cultivation

Weed - Weediness Index: The Weediness index quatifies the potential invasiveness of non-native plants, and, in combination with the percentage of non-native plants can be used as an indicator of disturbance. Values between -1 and -3 have been assigned to most non-native species based on the potential impact each species can have in a natural area.

-1 little or no impact on natural areas
-2 occasional impacts on natural areas, generally infrequent of localized
-3 major potential impacts on natural areas

MNR Provincial Rank
S1 -- Extremely rare in Ontario; < 5 occurrences
S2 -- Very rare in Ontario; 5 - 20 occurrences
S3 -- Rare to uncommon in Ontario; 20 - 100 occurrences
S4 -- Common in Ontario; > 100 occurrences
S5 -- Very common in Ontario
SE -- Exotic
? -- Follows a rank and denotes rank is tentatively assigned (ie. S4?)
S? -- Unranked

Wetland Communities

M - March Community
S - Swamp Community

EARTH TECH (CANADA) INC.
VASCULAR PLANT SPECIES LIST

SITE: Section 6 - Miscellaneous Patches west of 401
EO: 92422
DATE: Summer 2006

SCIENTIFIC NAME	COMMON NAME	FAMILY	CC	CW	GRANK	SRANK	WEED	COSEWIC	MNR	REG	FOM 3-2	CUP 3-2	CUP 1-3
Acer saccharum ssp. saccharum	Sugar Maple	ACERACEAE	4	3	G5T?	S5				x			
Allium tricoccum	Small White Leek	LILIACEAE	7	2	G5	S5				x			
Juglans nigra	Black Walnut	JUGLANDACEAE	5	3	G5	S4							x
Onoclea sensibilis	Sensitive Fern	DRYOPTERIDACEAE	4	-3	G5	S5				x			
Rubus fruticosa spp.	Blackberry	ROSACEAE											x
Rubus idaeus	Common Red Raspberry	ROSACEAE	0	-2	G5	S5							x
Vitis sp.	Grape species	VITACEAE											x
Carex sp.	Sedge species	CYPERACEAE								x			
Pinus strobus	Eastern White Pine	PINACEAE	4	3	G5	S5						x	
Trillium	Trillium sp									x			
Tsuga canadensis	Eastern Hemlock	PINACEAE	7	3	G5	S5				x			
Vinca minor	Periwinkle	APOCYNACEAE		5	G?	SE5	-2						x

Legend

CC - Coefficient of Conservatism: each native taxon is assigned a rank of 0 to 10 based on its degree of fidelity to a range of synecological parameters. Plants found in a wide variety of plant communities, including disturbed sites, were assigned ranks of 0 to 3. Plants that typcially are associated with a specific plant community, but tolerate moderated disturbance, were assigned ranks of 4 to 6. Rankings of 7 to 8 were applied to those plants associated with a plant community in an advanced successional stage that has undergone minor disturbance. Those plants with high degrees of fidelity to a narrow range of synecological parameters were assigned a value of 9 to 10.

CW - Coefficient of Wetness: A wetness index which gives an indication of where plant species are typically found. Wetland values are between -5 and 5.

-5: Occurs almost always in wetlands under natural conditions
-4 to -2: Usually occurs in wetlands, but occasionally found in non-wetlands
-1 to 1: Equally likely to occur in wetlands or non-wetlands
2 to 4: Occasionally occurs in wetlands, but usually occurs in non-wetlands
5: Occurs almost never in wetlands under natural conditions

Weed - Weediness Index: The Weediness Index quatifies the potential invasiveness of non-native plants, and, in combination with the percentage of non-native plants can be use as an indicator of disturbance. Values between -1 and -3 have been assigned to most non-native species based on the potential impact each species can have in a natural area.

-1 little or no impact on natural areas
-2 occasional impacts on natural areas, generally infrequent of localized
-3 major potential impacts on natural areas

MNR Global Rank
G1 -- Extremely rare; < 5 occurences
G2 -- Very rare; 5-20 occurences
G3 -- Rare to uncommon; 20-100 occurences
G4 -- Common; >100 occurences
G5 -- Very common
? -- Follows a rank and denotes rank is tentatively assigned (ie. G4?)
G? -- Unranked
T -- Denotes that the rank applies to a subspecies or variety

MNR Provincial Rank
S1 -- Extremely rare in Ontario; < 5 occurrences
S2 -- Very rare in Ontario; 5 - 20 occurrences
S3 -- Rare to uncommon in Ontario; 20 - 100 occurrences
S4 -- Common in Ontario; > 100 occurrences
S5 -- Very common in Ontario
SE -- Exotic
? -- Follows a rank and denotes rank is tentatively assigned (ie. S4?)
S? -- Unranked

COSEWIC - Committee on the Status of Endangered Wildlife in Canada

REG - Regionally Rare Rank

R - Native and Rare, based on 5 or fewer recent stations
R1 - 1 recent station
R2 - 2 recent stations
R3 - 3 recent station
R4 - 4 recent stations
R5 - 5 recent stations
Rh - known only from HISTORIC (pre-1964) records
VU - Native and Very Uncommon, based on 5 to 8 recent stations
U - Native and Uncommon, based on 9 to 15 recent stations
C - Native and Common, based on more that 15 recent stations I - Introduced and persisting outside cultivation

APPENDIX "C"

EIS CHECKLIST FOR OXFORD COUNTY

Environmental Impact Study Scoping Checklist

In accordance with the requirements of the County of Oxford's Official Plan (Section 3.2.6.3)

Requirement	Description of Task	Required?		
		Yes	No	N/A
A. Scoping of Environmental Impact Study	**i)** Consultation with appropriate County/Provincial guidelines?	☐	☐	☐
	ii) Consultation with the Upper Thames River Conservation Authority, City/County Planning Department and Ministry of Natural Resources?	☐	☐	☐
	iii) Obtained County approval of Terms of Reference prior to undertaking EIS study?	☐	☐	☐
B. A description of the proposal and of the existing natural environment that will be affected or that might reasonably be affected, either directly or indirectly.	**i)** Description of proposed development provided?	☐	☐	☐
	ii) Background review of existing documentation applicable to study area?	☐	☐	☐
	iii) Description of physical characteristics of the site (i.e. terrain, drainage, geology, soils)?	☐	☐	☐
	iv) Description of groundwater pathways/upwellings/ highwater table?	☐	☐	☐
	v) Vegetation communities delineated according to Ecological Land Classification (ELC) guidelines (Lee et al, 1998)?	☐	☐	☐
	vi) Vegetation surveys conducted at appropriate time of season?	☐	☐	☐
	vii) Vegetation surveys capture adequate species composition of each ELC unit?	☐	☐	☐
	viii) Aquatic Habitat Assessment of surface water features?	☐	☐	☐
	ix) Fish species surveys using appropriate capture methods (i.e. electro-shock, netting, trapping)?	☐	☐	☐
	x) Bird species surveys using appropriate methods?	☐	☐	☐
	xi) Amphibian surveys using Great Lakes Marsh Monitoring Program or other suitable methods?	☐	☐	☐
	xii) Reptile surveys?	☐	☐	☐
	xiii) Butterfly/other insect surveys completed?	☐	☐	☐
	xiv) Mammal surveys?	☐	☐	☐

EIS Checklist cont'd...

Requirement	Description of Task	Required? Yes	No	N/A
C. Definition of the geographic area to be included in the study.	**i)** Does the study area include enough geographic area to assess the potential impacts of the proposed development?	☐	☐	☐
D. The environmental effects that might reasonably be expected to occur including any potential for groundwater or surface water degradation.	**i)** Assessment of Significance of existing natural features completed?	☐	☐	☐
	ii) Assessment of potential impacts of proposed development completed?	☐	☐	☐
E. A recommendation as to whether the development should be permitted as proposed or whether alternatives to the proposed development should be considered.	**i)** Assessment of ability to develop	☐	☐	☐
F. Alternative methods and measures for mitigation of potential negative effects of the proposed development.	**i)** Mitigation measures address potential impacts (i.e. compensation/restoration areas, buffers)?	☐	☐	☐
G. Identification of measures to achieve a net environmental gain for fisheries resources and recommendations as to how such measures can be incorporated into the proposed development.	**i)** A net gain for fisheries resources demonstrated?	☐	☐	☐
H. A monitoring plan to measure the potential effects on the environment.	**i)** Monitoring plan developed for the study area or surrounding area?	☐	☐	☐

Additional Comments: