Ministry of Natural Resources
Ministère des Richesses naturelles

Ministry of Natural Resources
50 Bloomington Road West
Aurora, Ontario
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COPY

Ontario

Thursday, February 21, 2002

Mr. William Gerard
Heritage Coordinator
Ontario Realty Corporation
Property Preparation Division
77 Wellesley St. W. 11th Floor
Toronto, ON M7A 1N3

SUBJECT: Oakville Land Assembly

Dear Mr. Gerard,

The MNR Aurora District Office is refining our position on the protection of the Oakville Land Assembly as per your discussions with Mr. Rob Messervey, District Manager, on October 15, 2001. We appreciate your assistance and cooperation throughout the environmental assessment for these Crown resources.

Our review has been delayed due to our Oak Ridges Moraine commitments. We have received a copy of the Environmental Review report however we are missing Figures 1 to 6 and the photos in Appendix A. A request has been made to receive these figures.

Based on our review to date, there are deficiencies in the report that need to be addressed in order to meet the EA requirements prior to any sale of the property. These same recommendations have been forwarded to the Region of Halton for OPA 198. Our primary concern with the environmental review report is the: (1) lack of information on wetlands; (2) lack of information on wildlife travel corridors and (3) need for hydrogeological assessment of the Trafalgar Moraine. The ORC lands are on the moraine. Our complete mapping of natural features, buffers and links on and around the ORC property will have to wait until this information is available. We would appreciate an update from you regarding your timelines for disposition of these Crown lands.

Our desktop review of MNR 1997 infrared photos of the ORC property has identified approximately twenty-one wetlands or possible wetlands within the property boundary (see enclosed map and report). Fieldwork is necessary to identify and evaluate these wetlands. Some of these are kettle wetlands typical of moraine landscapes. Most of these have not been

identified in the Environmental Review report. MNR is committed to doing wetland evaluations in North Oakville during the 2002 field season. The ORC wetlands can be evaluated as part of this field survey.

The presence of kettle wetlands suggests that they are likely amphibian breeding areas. Since many of these wetlands are in agricultural lands, there is the possibility of movement of woodland amphibians from the surrounding woodlands to these wetlands. A spring survey needs to be carried out by ORC using MNR approved survey techniques. We can provide some assistance to carry out the study during the upcoming early spring field season (April).

In addition, the presence of wetlands and the origins of eleven tributary streams on the property suggest the need for further hydrogeological and hydrologic studies. For example, wetlands may be recharge or discharge windows for the moraine.

A complete evaluation of the natural features including linkages has been an important message throughout the communications made by commenting agencies during the Environmental Assessment for this land disposition initiative. Provincial ministry program needs and objectives are best addressed now through the EA prior to the sale of public lands rather than passing these responsibilities onto municipal officials.

Yours truly,

Judi Orendorff
Area Supervisor
Aurora District

cc: MMAH
Halton Region
Town of Oakville

Preliminary Observations of Natural Heritage Features On the Ontario Realty Corporation, Oakville Land Assembly

Ontario Ministry of Natural Resources
Aurora District
March 2002

Introduction

The natural heritage observations on the Ontario Realty Corporation (ORC) Oakville Land Assembly are based on 1998 MNR fieldwork carried out in the Oakville Creek ANSI portion, the results of the North Oakville Natural Heritage Inventory and Analysis prepared by LGL Limited for the Town of Oakville, the Ecoplan Limited Environmental Study Report for the ORC lands, and an analysis of 1997 infrared 1:10,000 MNR photography of the Oak Land Assembly and 2000 ortho-rectified colour photography (see attached map). Construction of Highway 407 has impacted certain features identified in the airphotos.

While Sixteen Mile Creek Valley has been studied in detail, adequate information is lacking on the tableland woodlands, hedgerows, wetlands and streams in the Oakville Land Assembly and on wildlife movements between these features.

Preliminary Observations on Natural Heritage Features

The ORC Oakville Land Assembly includes a large section of river valley and associated tableland woodlands around Sixteen Mile Creek (Oakville Creek) on its eastern side. This natural area has been identified by the Province as a regional life science Area of Natural and Scientific Interest (ANSI). The ANSI is noted for its large valley and tableland oak forests, its valley slope mixed forests, its valley terrace forests, its deciduous swamps, and its concentration of provincially and locally rare plant species and vegetation communities. Some noteworthy communities in the ANSI include Sugar Maple – Black Maple forests, dry oak – hickory forests, White Cedar woodland on eroding shale bluffs with prairie openings, dry White Oak woodlands with rare savannah/woodland plant species.

Rare species in the Oakville Land Assembly portion of the ANSI include the provincially rare Sharp-leaved Goldenrod (*Solidago arguta*), and such locally rare species as Dryland Blueberry (*Vaccinuum pallidum*), Lowbush Blueberry (*Vaccinium angustifolium*) Spring Clearweed (*Pilea fontana*), Sycamore (*Platanus occidentalis*) and Common Polypody (*Polypodium virginianum*). Vegetation communities present in the ORC portion of the ANSI include mixed forests of White Cedar – Eastern Hemlock – Sugar Maple and Eastern Hemlock – Sugar Maple on steep slopes, an oxbow pond surrounded by a Giant Bur-reed marsh, tableland forests of Red Oak and rich valley bottomland terrace forests of Sugar Maple, Sugar Maple – White Pine, Sugar Maple –Bitternut Hickory, Sugar Maple – Black Maple and Manitoba Maple – White Elm. As well, the ORC lands include the western portion of a provincially rare prairie bluff community that supports 16 locally rare plant species such as New Jersey Tea (*Ceanothus americanus*), Big

Bluestem (*Andropogon gerardii*), Hairy Beard-tongue (*Penstemon hirsutus*), Seneca-snakeroot (*Polygala senega*), Red-seeded Sedge (*Carex tonsa*), Northern Bedstraw (Galium boreale), Woodland Sunflower (*Helianthus divaricatus*), Yellow Pimpernel (*Taenidia integerrima*), Bristle-leaved Sedge (*Carex* eburnea) Pasture Rose (*Rosa carolina*), Soapbery (*Shepherdia canandensis*) Long-headed Anemone (*Anemone cylindrica*), Hairy Goldenrod (*Solidago hispida*), Cooper's Milkvetch (*Astragalus neglectus*) and the two blueberry species mentioned previously.

Sixteen Mile Creek supports an important fisheries with migratory runs of salmon, and a variety of resident fish.

West of the Oakville Creek ANSI, the Oakville Land Assembly supports agricultural lands, hedgerows, regenerating fields and 5 tableland woodlots of 16, 6, 6, 1.5 and 1 hectare in size. The woodlots according to the Ecoplans Limited Environmental Study Report for ORC support dry/fresh oak – maple – hickory forests and in the southern portion of the largest woodlot, a successional area with good regeneration.

The agricultural tablelands west of the Sixteen Mile Creek valley are traversed by 13 northwest to southeast trending tributary streams that are part of the Fourteen Mile Creek, Taplow Creek and Sixteen Mile Creek watersheds. The streams are headwater, first or second order streams with 11 of these streams having their origins within the Oakville Land Assembly. Five of the streams partially go through tableland woodlands where they are shaded by trees and have associated riparian habitats. One of the streams in the Fourteen Mile Creek watershed has associated open riparian habitat of regenerating fields and meadow marshes that varies from 20 to 60 metres wide. One stream in the Fourteen Mile Creek watershed and one stream in the Taplow Creek watershed have open riparian habitats about 10 m wide. The other streams occur in agricultural fields with little or no riparian habitat. The western streams that are part of the Fourteen Mile Creek watershed support seasonal fish habitat and the watershed downstream also supports the provincially threatened Redside Dace.

Twenty-two wetlands and possible wetlands occur scattered on the tablelands of the Oakville Land Assembly based on 1997 infrared air photography interpretation and the vegetation mapping in the LGL North Oakville Natural Heritage Inventory and Analysis report. Most of the wetlands are under 1 hectare in size and can be considered part of a wetland complex that has yet to be evaluated, with each of the wetlands within 700 metres of each other. Nineteen wetland marshes occur in the agricultural lands often along tributary streams. A number of these wetlands occur at the terminus of a stream or along a stream, several however appear to be isolated. Three of the wetlands occur in the tableland woodlands. A deciduous swamp occurs in a 6 ha tableland woodlot. Two marshes are situated in a tableland woodland that is part of the Oakville Creek ANSI.

Some of the wetlands in the Oakville Land Assembly appear to be kettle wetlands associated with the Trafalgar Moraine. Kettle wetlands are rare in site district 7E4, which covers the lands south of the Oak Ridges Moraine from the Niagara Escarpment to the Rouge River. All wetlands in site district 7E4 are also considered to be very rare in the

Ontario Wetland Evaluation System, Southern Manual". For example, wetlands cover less than 1% of the lands in the Town of Oakville.

The small wetlands in the Oakville Land Assembly are possible breeding areas for frogs and may support wetland bird species and waterfowl. Similar sized wetlands on the Oak Ridges Moraine have been shown to support these functions. The LGL North Oakville Natural Heritage Inventory and Analysis report notes that the Oakville Land Assembly supports a diversity of woodland amphibians such as Northern Spring Peeper, Chorus Frog, Wood Frog, Red-backed Salamander and more wide ranging amphibians such as American Toad, Leopard Frog and Green Frog. These amphibians with the exception of the Red-backed Salamander require wetlands for breeding in the spring. The woodland amphibians feed and hibernate in woodlands and can migrate up to several kilometres, even across fields, from their woodland homes to their breeding wetlands. Green Frogs stay closer to their breeding wetlands, while Leopard Frogs will forage in fields around wetlands particularly along streams and associated riparian areas. Both species hibernate in the bottom of wetlands and streams. American Toads once they have breed in their wetlands in the spring will forage a considerable distance through fields and woodlands and hibernate in uplands during the winter.

A dammed pond in the southwest corner of the Oakville Land Assembly supports a resident warmwater fisheries.

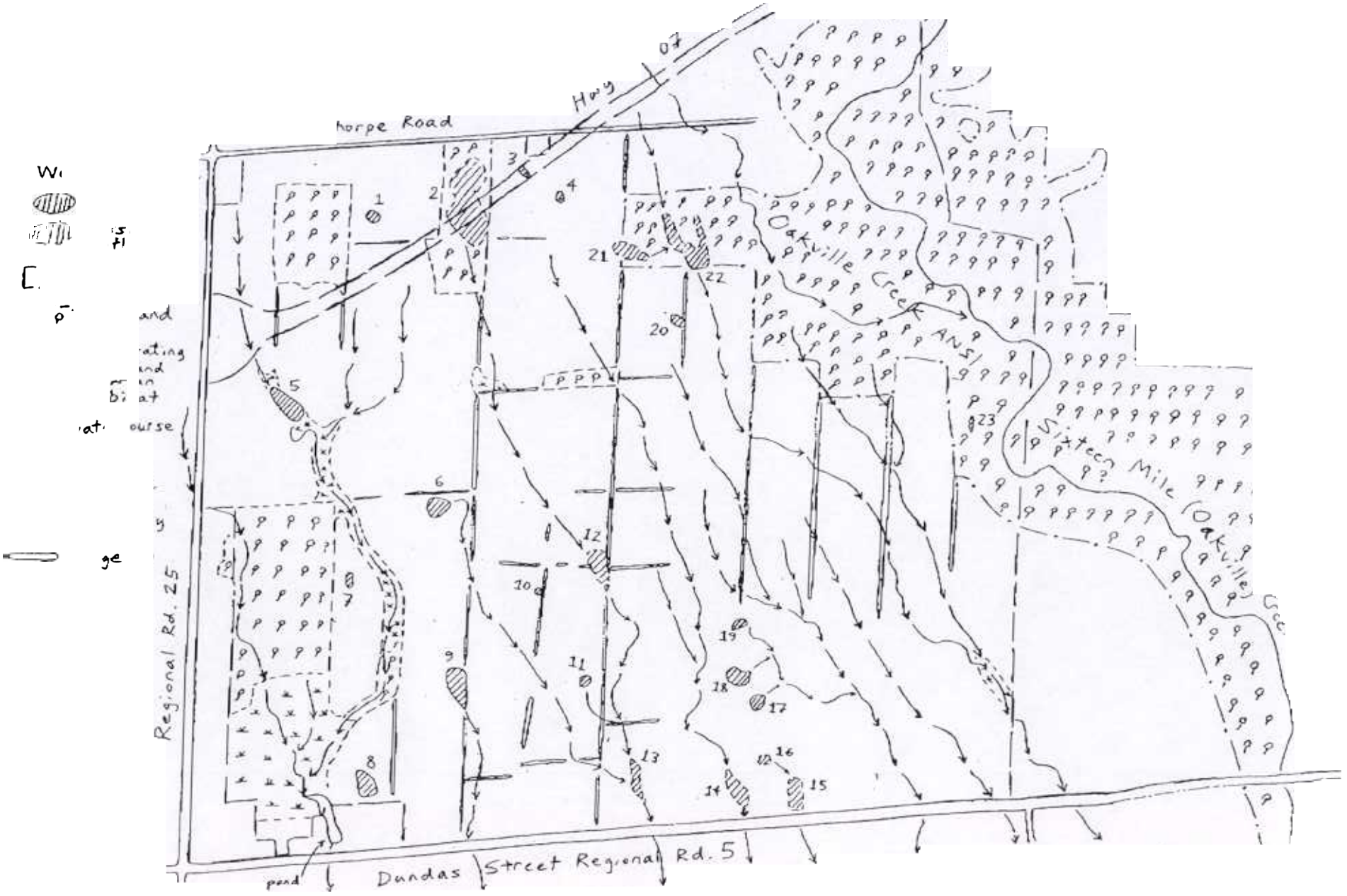
The Oakville Creek ANSI woodlands in the eastern portion of the Land Assembly are part of the biggest forested natural area in Oakville. As well, it is one of the largest forested natural areas in site district 7E4. This site district encompasses the lands on the north side of Lake Ontario from the Niagara Escarpment east to the Rouge River watershed and south of the Oak Ridge Moraine. These large forested blocks are particularly critical habitat for area-sensitive forest bird species. The LGL North Oakville Natural Heritage Inventory and Analysis report notes that the largest diversity of forest birds in North Oakville occurs in the Oakville Creek ANSI. Many of these forest bird species are considered conservation priority species as defined by Bird Studies Canada, the Ontario Ministry of Natural Resources and the Canadian Wildlife Service. Conservation priority species are defined by three criteria: jurisdictional responsibility (i.e. species that largely breed in Ontario receive a higher score), preservation responsibility (i.e. species rare or of limited distribution having low reproductive output or declining in numbers receive a higher score) and area sensitivity (i.e species sensitive to the amount of forest, wetland or open country habitat receive a higher score).

In the ORC portion of the Oakville ANSI there are 71 breeding bird species according to the LGL report. They include 22 forest birds of conservation priority such as Wood Duck, Sharp-shinned Hawk, Cooper's Hawk, Ruffed Grouse, Pileated Woodpecker, Brown Creeper, Blue-gray Gnatcatcher, Yellow-billed Cuckoo, Black-billed Cuckoo, Veery, Wood Thrush, Nashville Warbler, Chestnut-sided Warbler, Pine Warbler, Cerulean Warbler, American Redstart, Ovenbird, Scarlet Tanager, Eastern Towhee, Gray Catbird, White-throated Sparrow and Purple Finch. The Cerulean Warbler is also a provincially vulnerable bird species. The three largest tableland woodlots on the ORC

lands according to the LGL report support 48 breeding bird species. They include such conservation priority forest species as Pileated Woodpecker, Wood Thrush, Nashville Warbler, White-throated Sparrow and the provincially vulnerable Cerulean Warbler.

Regenerating fields and open habitats on the ORC lands based of the LGL report support 10 conservation priority open country breeding bird species including: Bobolink, Field Sparrow, Savannah Sparrow, Vesper Sparrow, Spotted Sandpiper, American Goldfinch, Northern Rough-winged Swallow, Horned Lark, Northern Mockingbird and American Kestrel.

The Oakville Land Assembly is situated on the southern flanks of the Trafalgar Moraine. The boundaries of the moraine are based on the L.J. Chapman and D.F. Putnam 1984 mapping in the report entitled; "The Physiography of Southern Ontario". The moraine consists of silty clay tills that are up to 35 metres deep, with the crest of the moraine north of the Oakville Land Assembly. The Trafalgar Moraine is a headwater area for streams such as Fourteen Mile Creek and Taplow Creek and may also provide some recharge and discharge functions. As noted, the Oakville Land Assembly is a source area for 11 tributary first order streams.


Hwy 07
horpe Road
Oakville Creek
Sixteen Mile (Oakville) Creek
Regional Rd. 25
Dundas Street Regional Rd. 5
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