

## 1.0 Project Background

### 1.1 Rationale for Property Assessment Project

Since the creation of the Upper Thames River Conservation Authority (UTRCA) in 1947, its conservation efforts have traditionally concentrated on securing land parcels for protection of life and property from flooding (e.g., Scheme 43, Scheme 44, and the wetland acquisition project). These acquisitions occurred in response to provincial funding opportunities at a time when there were no strategic natural heritage planning principles. The UTRCA acquired other land parcels through gratuitous dedication as a condition of development proposals, or when opportunities appeared and funding was available. Although the lands acquired in the past did meet the UTRCA's interests (e.g., natural features and functions, recreation, health and well being of the residents of the watershed, etc.), they were acquired in the absence of a comprehensive and strategic natural heritage land conservation program.

Pressures of development, competition for resources, and the scale of the watershed mean that an updated, proactive, balanced and strategic (systematic) approach is needed to evaluate the parcels the UTRCA currently owns and, eventually, to conduct a watershed-wide analysis of all lands in the watershed.

The end product of the Property Assessment Project will be the development of a natural heritage system plan for the entire Upper Thames River watershed that identifies priority areas, both privately and publicly owned, that will achieve the UTRCA's mission and goals. The plan will provide the UTRCA's Board of Directors and staff with up to date data to respond to development pressures. Sound conservation planning will encourage a more proactive approach, enabling the UTRCA to respond quickly and effectively to land securement opportunities when they arise, and to decide more effectively which projects should not be pursued, although opportunity will always play a role.

### 1.2 Regional Context

The Upper Thames River watershed is divided into 28 subwatersheds that are either major tributaries or sections of the main branches of the Thames River (Map 1). It covers approximately 3,482 square kilometres and extends from the headwaters of the Thames in the North Mitchell subwatershed (West Perth) south to the Dingman Creek subwatershed (London), and from the North Woodstock subwatershed (East Zorra-Tavistock) west to the Komoka Creek subwatershed (Strathroy-Caradoc). Based on 2008 mapping, 15% of the Upper Thames watershed is developed, 72% is in agriculture and 13% is in natural cover (Map 2). This watershed is under stress from development pressures in the local municipalities as well as from agricultural land uses.

The watershed is situated in the transition zone (6E) between the Lower Great Lakes - St. Lawrence Forest Region (5E) to the north, and the Southern Mixed Deciduous (Carolinian) Forest Region (7E) to the south (Map 3). Despite intense agriculture and urban development, the transition zone is the most species-rich in Canada, with plant and animal species of both southern and northern affinity.

The UTRCA has mapped many components of the natural heritage system within its jurisdiction including woodlands, unevaluated wetlands, watercourses, and meadows (Map 4), as well as critical habitat components including wetlands, environmentally significant areas and areas of natural and scientific interest (Map 5).

### 1.3 History of Land Acquisition

Within southern Ontario, Conservation Authority lands constitute the largest component of secured conservation lands, covering an area almost twice as large as provincial and national parks (Henson et al. 2005). The UTRCA owns approximately 5,967 hectares of land

(approximately 1.7% of the watershed), including environmentally sensitive lands (wetlands and woodlands), flood susceptible lands, managed woodlots, and park lands for active and passive recreation and outdoor education (Map 6).

Table 2 shows the amount of land acquired by the UTRCA each year from 1948 to 2008. When the UTRCA was first established in 1947, a portion of the first year's budget was devoted to the purchase and development of conservation area lands. Land acquisition began in earnest in 1948 and continued at a rapid pace for many years, especially after Hurricane Hazel (1954), when there was great interest in purchasing floodplains and lands for flood control works. At that time, spending was matched by the provincial and, in some cases, federal governments.

Some of the UTRCA's largest single acquisitions occurred from 1949 to 1953 for Ellice Swamp, Gadshill Swamp and Fanshawe Conservation Area (the latter for the creation of a reservoir associated with a flood control structure), and from 1962 to 1964 for reservoir development projects associated with the flood control structures at Pittock and Wildwood. The last surge in land acquisition occurred from 1990 to 1995 when additional portions of Dorchester Swamp were purchased. Provincial cost-sharing stopped in 1993. After that, the acquisition of conservation lands has been minimal due to budgetary constraints.

**Table 2. Amount of land acquired (+) and disposed of (-) by the UTRCA each year from 1948 to 2008**

Year	Middlesex County (ha)	Oxford County (ha)	Perth County (ha)
1948			+ 61
1949		+ 54 - 0.2	+ 613
1950	+147		+ 49
1951	+ 642		+ 100
1952	+ 142 - 17	+ 24 - 4	+ 296
1953	+ 50	+ 6	+183 - 56
1954	- 3		+ 111 - 40
1955	+ 21		+ 13 - 15
1956	+ 206		+ 32
1957	+ 19		+ 66
1958	+ 5		
1959	+ 6	+ 5	
1960	+ 8	+ 3	+ 5
1961		+ 6	+ 16 - 0.2
1962	+ 13	+ 735	+ 177
1963	+ 22	+ 47	+ 243
1964	+ 26	+ 581	+ 0.4
1965	+ 7 - 0.3	+ 2	+ 44
1966	+ 11	+ 17	+ 0.4
1967	+ 10	+ 11 - 2	+ 35
1968	+ 11		
1969	+ 0.5	+ 9	+ 0.04
1970	+ 28	+ 115	
1971	+ 56	+ 1	
1972	+ 2	+ 8.3	
1973	+ 9	- 14	+ 1

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Year	Middlesex County (ha)	Oxford County (ha)	Perth County (ha)
1974	+ 87	+ 3	+ 23
1975	+ 3		+ 2 - 26
1976	+ 7	+ 260 - 0.3	
1977	+ 22 - 3	+0.1	+ 158 - 1
1978	+ 53	+ 29	+ 138
1979	+ 2		+ 102
1980	+ 75	+ 48 - 0.03	+ 273
1981	+ 2 - 0.3	+ 16	+ 0.4
1982	+ 6 - 0.04	+ 0.3	
1983	+ 22		+ 0.3
1984	+ 47 - 0.02	+ 40	
1985	+ 56 - 2	+ 2	+ 0.2
1986	+ 31 - 0.1	+ 16	
1987	+ 15 - 0.01	+ 28	
1988	+ 13 - 0.1	+ 30	- 59
1989	+ 5 - 0.4		+ 77 - 45
1990	+ 8 - 14	+ 245	+ 13 - 93
1991	+ 12	+ 3	+ 17 - 2
1992	+ 2 - 20	- 0.2	+ 18 - 102
1993	+ 14 - 0.03	- 2	- 38
1994	+ 5 - 0.1		+ 16
1995	+ 2	- 5	+ 6
1996	+ 6 - 576		
2003	+ 4		
2005		- 76	
2006		- 8	+ 2
2007	- 0.2	+ 3 - 3	+ 15
2008		- 0.2	

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Table 3 shows the number of land parcels and total land area acquired in each county. Although Middlesex County has the largest number of UTRCA land parcels at 56% (167 parcels), it comprises only 22% (1,304 hectares) of the total area owned by the UTRCA. The majority of the land area owned by the UTRCA (41% or 2,430 hectares) is in Perth County, followed by 37% (2,233 hectares) in Oxford County.

**Table 3. Number of UTRCA land parcels and net total UTRCA land area in each county**

County	Number of UTRCA Land Parcels	Total UTRCA Land Area (ha)
Middlesex	167	1304
Oxford	47	2233
Perth	86	2430

Table 4 shows the distribution (number of parcels and total area) of acquired lands in each of the 28 subwatersheds in the Upper Thames River watershed. The UTRCA does not own any land parcels in the Komoka, Otter, Oxbow or Reynolds Creek subwatersheds. The subwatersheds with most UTRCA land parcels and the largest UTRCA land area are The Forks, South Thames, Glengowan, Dorchester and Trout. This reflects lands acquired for flood control (both for structures and floodplains) as well as wetland purchases.

**Table 4. Number and total size of UTRCA land parcels in each of the 28 subwatersheds.**

Bolded subwatersheds have 1% or more of their total area in UTRCA ownership.

Subwatershed	Number of UTRCA Parcels	UTRCA Land Area (ha)	Percent Subwatershed Area Owned by UTRCA
<b>Avon River</b>	<b>10</b>	<b>320</b>	<b>1.90</b>
<b>Black Creek</b>	<b>14</b>	<b>740</b>	<b>5.32</b>
Cedar Creek	3	0.4	0.01
Dingman Creek	8	45	0.26
<b>Dorchester</b>	<b>37</b>	<b>479</b>	<b>3.49</b>
Fish Creek	4	79	0.53
Flat Creek	1	62	0.69
<b>Glengowan Corridor</b>	<b>37</b>	<b>415</b>	<b>3.64</b>
Gregory Creek	1	8	0.14
Komoka	0	0	0
Medway Creek	2	28	0.13
Middle Thames	3	29	0.17
Mud Creek	1	9	0.06
North Mitchell	9	14	0.08
<b>North Woodstock</b>	<b>14</b>	<b>668</b>	<b>2.75</b>
Otter	0	0	0
Oxbow	0	0	0
<b>Plover Mills Corridor</b>	<b>14</b>	<b>885</b>	<b>7.38</b>
Pottersburg Creek	3	7	0.15
Reynolds	0	0	0
River Bend	10	33	0.56
<b>South Thames</b>	<b>22</b>	<b>299</b>	<b>1.32</b>
Stoney Creek	6	18	0.47
<b>The Forks</b>	<b>96</b>	<b>186</b>	<b>2.11</b>
<b>Trout Creek</b>	<b>17</b>	<b>1351</b>	<b>8.34</b>
Waubuno Creek	3	1	0.01
Whirl Creek	13	4	0.03
<b>Wye Creek</b>	<b>4</b>	<b>73</b>	<b>1.32</b>
Outside watershed (Ellice)	3	214	N/A

## 1.4 Project Management

The project was led by a Property Assessment Team comprised of internal staff members (including the Coordinator of Lands and Facilities, and representatives from each of the six UTRCA units). The team was chaired by the Project Manager and met approximately four times a year from 2007 to 2009.

The purpose of the team was to develop management categories and criteria, and to use those criteria to conduct a case by case evaluation of the UTRCA land parcels to determine their quality and significance. Next, the criteria will be applied to parcels in the watershed not owned by the UTRCA. Together, the assessments of parcels owned and not owned by the UTRCA will be used to identify parcels of interest and develop implementation strategies. Funding sources or programs will be identified for each land parcel of UTRCA interest. Finally, the committee will develop management strategies for parcels owned by the UTRCA.

The UTRCA Board of Directors will receive a report for approval at the completion of each step of the project. This report summarizes the results of the first step: development of the criteria and evaluation of UTRCA land parcels.

## 1.5 Terminology

A Glossary is provided as part of this report with definitions of terms used.