

Lower Thames Valley Conservation Authority 2004 Annual Report



The Thames
A Canadian Heritage River



The Canadian Heritage Rivers System

*What happens on the land, affects both
surface water and groundwater. Everyone
lives downstream from somebody else...*

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Partners in Conservation

In addition to our municipal and provincial partners, we gratefully acknowledge the assistance of the many organizations and individuals from our watershed communities that were our partners in conservation during 2004. These were essential players in the stewardship of our local conservation lands and were instrumental in connecting with additional corporations, foundations, government agencies, youth groups and businesses for the benefit of the environment and ultimately the health of our communities.

Bothwell Forest / Skunk's Misery Interest Group

Bluewater Centre for Raptor Rehabilitation

C.M. Wilson Seasonal Campers

Canadian Museum Association

Chatham-Kent Children's Safety Village Committee

Cove Marina

East Side Pride

Environmental Community Opportunities (ECO) Partnership

Friends of Sharon Creek

Guardians of Longwoods

Lighthouse Cove Chamber of Commerce

Lower Thames Valley Conservation Foundation

Munsee-Delaware First Nation

Oneida Language and Cultural Centre

Ska-Nah-Doht Iroquoian Village Advisory Committee

Upper Thames Military Re-enactment Society

Wheatley Two Creeks Association

*Our Member Municipalities of
Chatham-Kent, Leamington, Lakeshore, Middlesex Centre, London, Southwold,
Strathroy-Caradoc, West Elgin, Dutton/Dunwich
and Southwest Middlesex.*

Conservation Ontario

Province of Ontario and its Ministries

Federal Government, its Ministries and Departments

*And all corporations, foundations, government agencies, Scouts and Guides,
other youth groups and businesses, which have assisted the above!*

Thank you!

Conservation Authority Staff Directory 2004

Lower Thames Valley Conservation Authority Administration Building

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E-mail: ltvca@MNSi.net

Website: www.lowerthames-conservation.on.ca

General Manager/Secretary-Treasurer - Jerry Campbell

Water Management Supervisor - Jack Robertson

Resource Technician - Valerie Towsley

Accounting Clerks - Sharlet Piggott, Sandy Maynard

C. M. Wilson Conservation Area

Workshop

Tel: (519) 354-8184

Western District Supervisor - Russ Dysarz

Longwoods Road Conservation Area

Workshop

Tel: (519) 264-1500

Eastern District Supervisor - David Little

Construction & Maintenance Technician - Bruce Clark



Jerry Campbell (left) presents Ken Brooks - Past LTVCA Chair, with a special gift. The painting, by artist David Lorenz Winston, is in appreciation for Ken's years of service on the Board of Directors.

Resource Centre &

Ska-Nah-Doht Iroquoian Village and Museum

Tel: (519) 264-2420 Fax: (519) 264-1562

E-Mail: lowerthames@odyssey.on.ca

Community Relations Coordinator - Bonnie Carey

Clerk/Secretary - Agnes Vriends

Iroquoian Village Curator - Karen Mattila

Iroquoian Village Education Technician - Rose Nicholas

Conservation Education Technician - Denise Biega



Front L-R: Jack Robertson, Denise Biega, Jerry Campbell, Rose Nicholas, Karen Mattila.

Back L-R: Bruce Clark, Valerie Towsley, Bonnie Carey, Russ Dysarz, David Little, Agnes Vriends, Sharlet Piggott, Sandy Maynard, Randy Nauta.

Board of Directors and Committees 2004



'The Lower Thames Valley Conservation Authority (LTVCA) is a watershed-based partner, working with the local community, providing services and information to efficiently protect and enhance the environment for present and future generations.'

One Director represents each municipality except for Chatham - Kent (three). Directors are appointed for a maximum three year term and can be reappointed. Meetings of the Board of Directors are generally held on the last Thursday of every other month commencing in February. As appointed representatives, Directors are charged with the responsibility of establishing policies and making policy decisions which will govern the operation of the Conservation Authority.

Committees

Personnel and Finance / Executive Committee:

Joe Reily, Brian King, Stan Lidster, Bill Scott, John Yokom

Ice Management Committee:

Joe Reily, Brian King, Bill Scott, Vic Vogler

Ska-Nah-Doht Iroquoian Village Committee (Conservation Authority Representatives):

Joe Reily, Brian King, Stan Lidster, John Lorimer, John Yokom, Jerry Campbell



L-R Front Row: J. Brown, S. Lidster, J. Reily, B. Derbyshire, N. Isyumov

L-R Back Row: B. Scott, J. Yokom, B. Wiehle, J. Kavelaars, J. Lorimer, B. King, V. Vogler

Board of Directors 2004

Chair: Joseph Reily - Township of Strathroy-Caradoc

*Vice-chair: Brian King
Municipality of Chatham-Kent*

Jim Brown - Municipality of Chatham-Kent

Bill Scott - Municipality of Chatham-Kent

John Yokom - Municipality of Dutton/Dunwich

Vic Vogler - Town of Lakeshore

Bill Derbyshire - Town of Leamington

Jack Lorimer - City of London

Nicholas Isyumov - Township of Middlesex Centre

John Kavelaars - Municipality of Southwest Middlesex

Stan Lidster - Township of Southwold

Bernie Wiehle - Municipality of West Elgin



LTVCA Chair Joe Reily (left) presents an award of appreciation to Past Chair Ken Brooks (right).

Chair's Remarks & Executive Summary

The Lower Thames Valley Conservation Authority (LTVCA) provided critical environmental protection services to watershed residents in 2004. I extend a thank you to all our 'partners in conservation' for their support, which was key to the successful delivery of environmental products and services to our watershed residents.

High water levels on the Thames in early March and again in late May were sufficient to flood the river flats in areas upstream of Chatham, but were below the elevation where flood damages would occur downstream. In contrast, the watershed suffered Level One drought conditions over the fall months.

On April 14, 2004, the new Conservation Authority Generic Regulation was signed and approved by the Lieutenant Governor. The proposed Generic Regulation will replace all Conservation Authorities Fill, Construction and Alteration of Waterways Regulations in the Province. The new Generic Regulation requires that the Conservation Authority produce a local regulation by April 14, 2006.

Emphasizing the major role that Conservation Authorities in Ontario have as delivery agents for the Province in the areas of environmental and natural resources protection, the LTVCA continued its work in Provincial Water Monitoring Programs in the watershed. As well, the LTVCA worked together with neighbouring Conservation Authorities on several initiatives, including the Lakes St. Clair and Erie Water Management Studies, the Thames River Aquatic Species at Risk Recovery Strategy, the Lambton-Elgin-Middlesex Mapping Project, The Thames River Fisheries Management Plan and Source Protection Planning.

Last year, funding was received by Ontario's Conservation Authorities for Source Protection Planning. Protecting our surface water and groundwater from becoming contaminated or overused will ensure that we have a sufficient supply of clean, safe drinking water now and for the future. The St. Clair Region (SCRCA) and Upper Thames River (UTRCA) Conservation Authorities are working together with the LTVCA as one Source Protection Region. In December of 2004, interviews were held to hire a Coordinator for the program, and it is anticipated work will begin early in 2005 with the preparation of Terms of Reference for the plan and the preparation of the plan itself. The Province announced \$702,945 to lay the ground work for the planning process for our Source Protection Region from December 1, 2004 to June 30, 2005. The grant rate for Source Water Protection Plan preparation is provincially funded at 100%.

Plan input and review is one of the ways the LTVCA monitors development. Close to 900 planning development issues were reviewed in 2004. This year also marked the 6th year of an agreement with the Federal Department of Fisheries and Oceans (DFO), for the review of proposed works in watercourses, and their effect on fish habitat as it relates to the Federal Fisheries Act.

It is devastating to report on the demise of the ash tree within the LTVCA, as a result of the Emerald Ash Borer. An ash free zone was designated in Chatham-Kent and over 90,000 ash trees were destroyed in an attempt to control this insect's spread. The LTVCA planted nearly 70,000 trees in 2004, and has entered into more reforestation programs to compensate for our loss of trees.

Our conservation areas were very busy this year. Community groups, volunteers and special employment project staff help us provide safe, clean and enjoyable conservation areas. Delaware's "Friends of Sharon Creek", and the "Wheatley Two Creeks Association", are committed to the stewardship of the Sharon Creek, and Two Creeks Conservation Areas. Chatham's "East Side Pride" volunteers and Lakeshore's Lighthouse Chamber of Commerce and Cove Marina helped out at the Lighthouse Conservation Area. The Middlesex, Elgin and Kent Stewardship Committees also partnered with the LTVCA on numerous conservation area projects. The Environmental Community Opportunities (ECO) Partnership gave over 5,000 person-hours of labour in conservation areas. The Ontario Ministry of Natural Resources "Ontario Ranger Program" also provided summer help. The \$41,000 of special employment funding available from HRDC, the Provincial and Federal government departments and the Lower Thames Valley Conservation Foundation, aided the LTVCA in many areas including the operation and development of its conservation lands and technical assistance.

Numerous community events engaged the LTVCA throughout the year. The Fourth Annual Thames River Symposium was held in the spring in Woodstock and the Annual Thames River Clean-up followed. We are very proud of the Education Programs, based out of the Longwoods Road Conservation Area and Ska-Nah-Doht Iroquoian Village and Museum facility, with participation of over 10,000 students, youth groups, teachers, and adult supervisors in 2004. And as you will note, thousands of visitors enjoyed the annual events and the camping facilities at the conservation areas, which provided our watershed residents and visitors with unique recreational and educational opportunities.

Let me take this opportunity to thank the members of the Conservation Authority, who have represented their municipalities well. They have worked together to balance the needs of the watershed with the needs of the individual municipalities. In particular, I want to thank the staff for their continued hard work and support in 2004.



Joe Reily - Chair LTVCA 2004

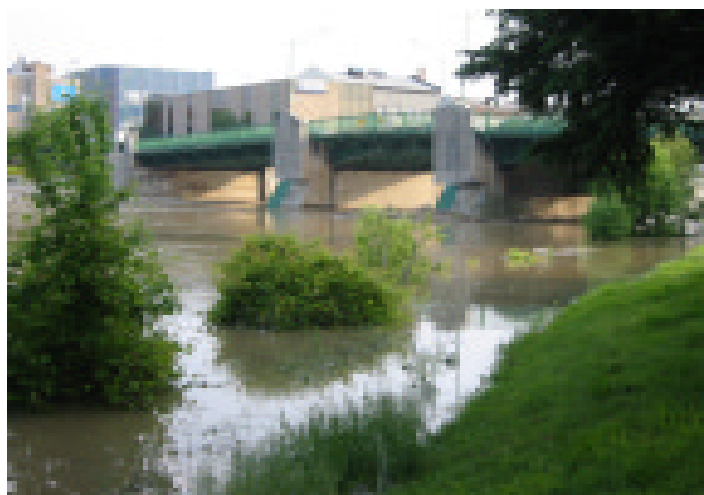
Joseph C. Reily
Joseph Reily

Water Management

Flood Control

The winter of 2004 was mild, even with the low temperatures recorded in January. As indicated in the table below, the average temperature recorded in January was 2 C° colder than normal. However, when averaged out over the whole winter, actual temperatures were approximately 0.5 C° milder than normal.

February was too cold to melt the ice on the Thames River, which had formed in January. The month began with 30 cm of ice on the river and ended with the same amount. By the end of February, there was approximately 70 mm of water equivalent in the snow pack. This was the same as the long term amount expected for that time. Warm weather entered the region beginning on February 29th and it ensued until March 8th. From the start of the melt period until the flood crest occurred at Byron, the LTVCA experienced approximately 29 C° – days of melting. This was enough to insure that flooding due to ice jamming was not a concern. A rainfall of approximately 30 mm on March 4th and 5th helped to increase runoff for the event, and as a result, a flow of 770 cubic metres per second occurred at the Byron stream gauge on March 6th. This flow was the highest flow recorded since February of 2001. It was sufficient to flood the river flats in areas upstream of Chatham, but was below the elevation where flood damages



Thames River waters were high at the 5th Street Bridge in Chatham during a spring runoff event in May.

would begin upstream of McGregor Creek Dam on Sixth Street in Chatham.

The only other runoff event of significance happened when a flow of 425 cubic metres per second occurred at the Byron stream gauge on May 25th. This flow was sufficient to flood the river flats of the Thames River upstream of Chatham but was unable to inundate upper table land areas.

Month	Normal	Windsor		Mean Daily Temperature (C°)		London	
			Actual	Normal		Actual	
Dec. – 2003	-1.9		0.5	-3.4		-0.9	
January	-4.5		-6.6	-6.3		-9.5	
February	-3.2		-2.0	-5.5		-4.7	
March	2.0		4.2	-0.3		1.9	
Average	-1.9		-1.0	-3.7		-3.3	

Table 1: Mean Daily Temperatures December 2003 - March 2004

Drought Response

Except for September, the summer in the watershed region was cooler and damper than normal. September was warm and dry enough to put the region into a three month, Level One, low water condition (over the three month period ending in September, the area received less than 80% of the average precipitation of those same three months). This condition persisted through October and November. On October 28th, a meeting initiated the formation of a Water Response Team for the LTVCA. A Level One low water condition was not officially declared, as there were insufficient socio-economic impacts from the situation. The LTVCA continued to monitor conditions, and planned to hold another meeting of the Team in spring 2005, when more impacts from a Low Water Condition could occur.

Month	Windsor				London			
	Mean Daily Temp. (C°)		Precipitation (mm.)		Mean Daily Temp. (C°)		Precipitation (mm.)	
	Normal	2004	Normal	2004	Normal	2004	Normal	2004
May	14.9	15.6	80.8	191.6	13.0	13.4	82.9	188.4
June	20.1	19.4	89.8	95.4	18.0	17.1	86.8	109.6
July	22.7	21.9	81.8	92.0	20.3	20.0	82.2	72.2
August	21.6	20.2	79.7	123.6	19.5	18.2	85.3	51.8
September	17.4	19.2	96.2	25.2	15.3	17.1	97.7	18.4
Average	19.3	19.3	85.7	105.4	17.2	17.2	87.0	88.0

Table 2: Mean Daily Temperature and Precipitation May - September 2004

Provincial Grant Funding for Capital Maintenance and Flood Forecasting

The Conservation Authority receives grant funding from the province each year for the operation, routine minor maintenance and preventative maintenance of flood and erosion control projects, flood forecasting and warning, chronic ice management, legal costs for ongoing joint Conservation Authority / Provincial capital projects, watershed management and related administration. The following table outlines the total approved funding in each category in 2004 as well as comparable numbers in 2003 and 2002. The costs outlined are the grants received. Eligible project costs would be twice the number shown in the table.

Category	2004	2003	2002
Flood Control Operations	120,603	120,603	120,603
Hazard Prev. / Watershed Mgmt.	37,006	37,006	37,006
Total	157,609	157,609	157,609

Table 3: Provincial Grant Funding for Capital Maintenance and Flood Forecasting 2004

Gate Evaluation - McGregor Creek Dam

In early 2004, the Conservation Authority received the final report, which evaluated the operation of the McGregor Creek Dam. The report was completed by Todgham & Case Assoc. with assistance of Byrne Engineering in Burlington and LTVCA staff. The cost of the report was \$30,000 with each of Chatham-Kent and the Province of Ontario funding 50% of the cost. The report recommended to:

- Replace the existing hinges with much stronger continuous strip hinges.
- Modify the existing hoist mechanisms to reduce the lifting forces on the hinges.
- Install new limit switches to detect when the gates are fully closed.

Late in 2004, the Province of Ontario, through the Ministry of Natural Resources, funded a program for Conservation Authorities to undertake capital repairs to capital infrastructure. Through this program, the LTVCA was able to obtain funding to tender and contract the repairs to the McGregor Creek Dam. The project was contracted with Facca Construction in late December of 2004, with the construction scheduled for early in 2005. This \$268,000 project will be funded in the same manner as the report, with each of Chatham-Kent and the Province of Ontario funding 50% of the cost.



In late 2004, the Conservation Authority began a project on the McGregor Creek Dam at Sixth Street in Chatham. The project involves modifying the gate hinges and installing a gear clutch on each of the lifting mechanisms. This photo shows one cell, which has been dewatered before hinge installation.

Water Advisory Meetings

The LTVCA is also a longstanding, associate member of the Chatham-Kent-Essex Chapter of the Drainage Superintendents Association of Ontario. This organization holds approximately four to six meetings per year.

Lake St. Clair and Lake Erie Water Management Studies

Work continued on the bi-national Lake St. Clair Water Management Study in 2004. The goals of the plan are to evaluate the causes of environmental stress to the St. Clair River and Lake St. Clair; determine management goals and objectives; review ongoing management activities and develop recommendations for management priorities. The plan is intended to be an important "roadmap" for future management efforts for Lake St. Clair and the St. Clair River. Environment Canada and the Province of Ontario, via the Great Lakes Renewal Foundation, had committed resources to prepare a comprehensive technical document. The report identifies five key management areas: land use; nutrients; chemical contamination; habitat loss; and invasive non-indigenous species. It was completed in early 2004.

Local coordination of the Lake St. Clair Water Management Study in Canada is being led by the Canadian Lake St. Clair Watershed Coordination Council. This group will be conducting an extensive consultation process over the next 18 months to develop recommendations and an implementation strategy to address issues identified in the Technical Report. In 2004, much of the groundwork toward this was undertaken.

The U.S. was committed to a time table and therefore much work was done 2003. In 2004, the management plan underwent final review by the Corps and a local Watershed Management Advisory Group sought funding for five projects: a drinking water protection program; septage disposal facility; local watershed plans; illicit discharge elimination and contaminated site assessment program.

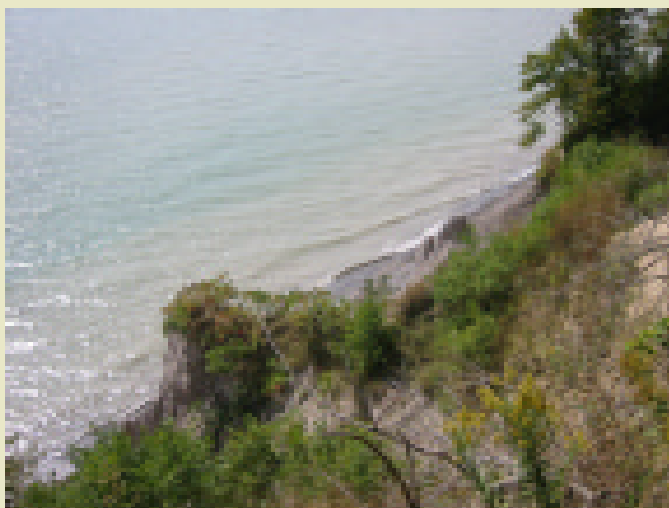
A requirement of the Canada-Ontario Agreement (COA) is a work plan for each Area of Concern (AOC) and Lake Area Management Plan (LaMP). Lake St. Clair has been included in this process. Specifically, for Environment Canada and the Ontario Ministry of Natural Resources, Lake St. Clair is a subset of the Lake Erie LaMP. Each agency within COA must submit work plans; this includes Environment Canada, Department of Fisheries and Oceans, Ministry of the Environment, Ministry of Natural Resources and the Ministry of Agriculture and Food. Ideally the work plans submitted will reflect a coordinated approach among the agencies for work over the duration of this COA. The Lake St. Clair Management Plan has the opportunity to influence actions that these agencies could include in their workplan.



The St. Clair National Wildlife Area - A Place for Wildlife, is located in the community of Dover, in the Municipality of Chatham-Kent.

Great Lakes Levels

Lakes Erie and St. Clair continued their recent trend of having water levels very near to their long term trend. Lake St. Clair was approximately 10 centimetres below its long term average, while Lake Erie was mere centimetres below its long term average for much of the year. These low levels and the lack of any significant wind generated storms, resulted in no flood events on the lakes in 2004.



A view of the north shore of Lake Erie is seen from the cliffs at John E. Pearce Provincial Park in the Municipality of Dutton/Dunwich.

Source Protection Planning

Justice O'Connor's report on the Walkerton tragedy contained 22 recommendations on source water protection. In response to the recommendations, the Minister of Environment formed an Advisory Council in late 2002, on a provincial framework for Watershed-based Source Protection Planning. The report of the Advisory Council was completed, and the 55 recommendations in the report set out a comprehensive framework that addresses roles and responsibilities, the planning process, resources, timing and legislation.

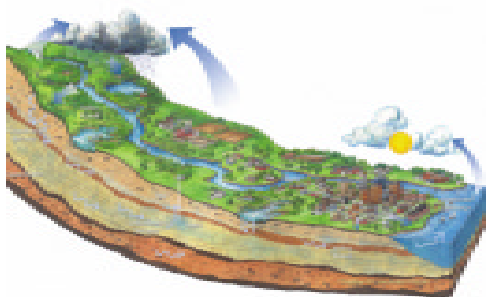
The implementation of this report creates new responsibilities for Conservation Authorities. The Advisory Committee recommended that wherever possible, Conservation Authorities shall be the organization given responsibility for coordinating the development of watershed-based source protection plans. Source water protection is the first of five barriers to protect drinking water. Protecting our surface water and groundwater from becoming contaminated or overused will ensure that we have a sufficient supply of clean, safe drinking water now and for the future. The other barriers are, up to date water treatment systems, reliable distribution systems, water testing and training of water managers and staff. A Source Water Protection Plan represents an agreement among the people and municipalities of a watershed about the ways to protect water quality and quantity. Conservation Authorities will: facilitate the process; coordinate the work related to the development of the Plan; and provide technical expertise.

The LTVCA has consistently believed that we should attempt to come up with a reasonable, yet effective framework of complying with the recommendations of the Advisory Council about Source Protection. Discussions were held with the St. Clair Region (SCRCA) and the Upper Thames River (UTRCA) Conservation Authorities, and we collectively felt that grouping the Conservation Authorities draining into Lake St. Clair would maintain the watershed approach of the recommendations, while providing regional economies of scale. The approach would also build on the two major Groundwater Protection Studies in the region, grouped as 'Chatham-Kent Essex' and 'Elgin Middlesex'. This belief was echoed by Conservation Ontario to the Ministry of the Environment, and was subsequently approved late in 2004. In December of 2004, interviews were held to hire a Coordinator for the program, and it is anticipated work will begin early in 2005 with the preparation of Terms of Reference for the plan and the preparation of the plan itself. The Province announced \$702,945 to lay the ground work for the planning process for our Source Protection Region for December 1, 2004 - June 30, 2005. The grant rate for Source Water Protection Plan preparation is provincially funded at 100%.

Together, six Conservation Authorities in Southwestern Ontario (ERCA, LTVCA, UTRCA, ABCA, SCRCA and MVCA) asked the Ontario Geological Survey division of the Ministry of Northern Development and Mines for funding to undertake a study that would provide a Regional Groundwater Model. The funding request was approved, and the study or model development was awarded to Waterloo Hydrologic of Waterloo. The cost of the study is \$290,000. This model would tie together the numerous local groundwater studies completed over the last few years. It will also provide vital background information for Source Protection Studies in the region.



Map 1: Source Protection Region.



Conservation Authorities are organizations given responsibility for coordinating the development of watershed-based source protection plans. A watershed is an area of land that is drained by a river and its tributaries into a body of water such as a lake or ocean. No matter where you live on the surface of the earth, you are living in a watershed. What happens on the land, affects both surface water and groundwater. Everyone lives downstream from somebody else.

Provincial Water Monitoring Program

The LTVCA continued to work with the Ontario Ministry of the Environment (MOEE) on the Provincial Groundwater Monitoring Program. The intent of the program is to have a provincial network for monitoring ambient ground water conditions. Such a network will assist in the monitoring of potential drought conditions and in the implementation of provincial and local action plans, and environmental decision making by municipalities and the province.

The Conservation Authority collected water samples from eight of these wells and sent them to a London lab for a general chemistry water quality analysis. The LTVCA also undertook general maintenance of the on site equipment at the wells.

In 2004, we continued working with the MOEE and sampled surface or stream waters at nine locations within the LTVCA. In this program, water is collected on a monthly basis in the spring, summer and fall and then sent to the MOEE laboratory in Toronto for testing. The results are then returned to the Conservation Authority. Both of these programs emphasize the Conservation Authority's role as the primary delivery agent for provincial programs related to the environment and natural resources.



The Conservation Authority collected water samples from eight wells, including this one located at Longwoods Road Conservation Area in the Township of Strathroy-Caradoc. Students hired through Provincial Summer Experience and the Federal Summer Career Placement Programs assisted LTVCA staff with the water collection in 2004.



During a watershed bus tour for our Directors and Member Municipalities, staff explained the details of the Provincial well water monitoring program while at Longwoods Road Conservation Area.



Lambton-Elgin-Middlesex Mapping Project

In conjunction with the St. Clair Region Conservation Authority, the Lower Thames Valley Conservation Authority undertook a mapping project in the municipalities of Southwest Middlesex, Strathroy-Caradoc, West Elgin and Dutton/Dunwich. The photography was completed in the spring of 2003 and over the remainder of the year, the contractor continued with the work required to orthorectify the maps. The Conservation Authority took delivery of the mapping in 2004 and distributed it to the participating municipalities. The total cost for undertaking the project within the Lower Thames Valley Conservation Authority was approximately \$71,000.



Species at Risk - Thames River Aquatic Ecosystem Recovery Strategy

The Thames River Aquatic Ecosystem Recovery Strategy for Species at Risk, developed for the Thames watershed, will sustain a healthy aquatic ecosystem and encourage long-term survival of aquatic species at risk. The Recovery Strategy guides activities within the Thames watershed, involves communities in projects that will help species recover, monitors for changes in species populations, and raises awareness about the river's rich aquatic life. The Federal Habitat Stewardship Program (HSP), is one of the key funding partners contributing towards the Recovery Strategy.

In 2004, HSP provided approximately \$200,000 for various Recovery Strategy projects in the Thames watershed. With \$2,550 HSP funding and \$1,750 from the Lower Thames Valley Conservation Foundation, a species at risk education program for secondary schools in the lower Thames watershed was developed by LTVCA education staff. This program provides support for teachers in the lower Thames watershed for student involvement in a species at risk monitoring program. LTVCA staff also provided further in-kind support as they attended committee meetings, reviewed Recovery Strategy documents and organized public meetings. Research and monitoring of the species and funding proposal writing for the Recovery Strategy were conducted by the Upper Thames River Conservation Authority (UTRCA). In 2005, watershed stakeholders and the Conservation Authorities will begin the Recovery Strategy Implementation, with the establishment of recovery implementation groups and the recovery action plans.

Public Consultation:

Five public meetings were held in June, across the Thames River watershed. Presentations were made by Ingrid Taylor - Water Quality Specialist (UTRCA) on the Thames River Aquatic Ecosystem Recovery Strategy initiative, and by Thom Heiman - Species at Risk Coordinator (Department of Fisheries and Oceans (DFO)) on Species At Risk Act and new species listings. LTVCA staff organized and facilitated meetings in the lower Thames. A pre-consultation meeting with First Nations representatives was held in May.

Research and Monitoring:

Mussels: The Thames River supports one of the richest communities of freshwater mussels in Canada. However, research shows that there has been a 30 percent decline of freshwater mussel diversity in the Thames River. Five of the 30 native mussel species are believed to be extirpated from the river, which indicates conditions in the river may be deteriorating. This year, research crews collected data from the upper Thames sites. Findings indicate, the "endangered" *Wavy-Rayed Lampmussels* were more abundant than previously thought, and this region is now believed to host the second best population in Canada. "Endangered" *Round Pigtoe Mussels* and a single "endangered" *Rayed Bean Mussel* were also found, the first ever discovered live in the Thames.

Reptiles: Turtle and snake populations are declining. In Ontario, five of the eight native turtle species have been listed as "at risk"; four of these species are found in the Thames watershed. Eleven of Ontario's 18 native snake species are listed as "at risk"; eight of these species are found in the Thames watershed. Research being conducted in the Thames watershed will provide information on these animals and their habitat. Twenty-nine "threatened" *Spiny Softshell Turtle* nests were protected from poaching. Twenty softshells were PIT-tagged for identification purposes along the Thames, with a three-year total of 90 softshells tagged. Thirty-eight km were surveyed for nesting habitat in the lower Thames between Delaware and Middlemiss, with 16 softshells and 31 "special concern" *Northern Map Turtles* observed. Within Chatham-Kent, a few softshells were reported. Limited research on the "threatened" *Queen Snake* continued. A three-year Ontario Trillium Foundation grant provided \$100,000 to continue reptile research and education.

Fishes: The Thames is home to the most diverse fish in Ontario. The 90 fish species recorded in the Thames watershed represent about 58% of Ontario's fish species. Over 25% of the "at risk" fish species have been found in the Thames. During 2004, DFO sampled the lower Thames tributaries between London and Thamesville. One "special concern" *Northern Madtom* and "threatened" *Black Redhorse* fishes were found. Over 300 "threatened" *Eastern Sand Darters* were tagged.



In June, two public consultation meetings were held in the LTVCA for the Species at Risk Recovery Strategy. One was held in West Lorne and the other in Tilbury.



Thames River Fisheries Management Plan

The LTVCA received funding for a nine month internship from the Department of Fisheries and Oceans (DFO). This internship was to be used to aid in the development of the Thames River Fisheries Management Plan (TRFMP). For much of the summer, the intern worked with the DFO at gathering benthic information for

the Thames River. Unfortunately, the intern returned to school in the fall and the LTVCA was not able to hire another intern for the remainder of the year. Our commitment to the plan preparation is limited to in-kind contribution.

(The following report is from the project website www.thamesfishplan.ca and was prepared by the Upper Thames River Conservation Authority. This project web site has been set up to promote the project and provide information to the public). The Thames River and its tributaries are home to a wide variety of fish species, each of which plays an important part in this ecosystem. A Fisheries Management Plan is a resource document that provides background information about the historic and current fish community and about physical conditions within the watershed. The plan is used to set management directions for the fish community, the fish habitat, and human use of the resource.

Current fisheries management plans, which were prepared by the Ministry of Natural Resources, are outdated. While many projects continue to be undertaken on a localized basis, an updated coordinating plan for the entire watershed is needed to establish targets and priorities through agreed upon common goals. The TRFMP will provide for compatible activities of agencies and stakeholders and ensure that the Thames River's fisheries resources are managed sustainably, effectively and efficiently.

The plan is being developed collaboratively with stakeholders. These stakeholders include regulatory and non-regulatory agencies, non-government organizations, First Nations communities, and the general public.

Public involvement in the process is critical. Stakeholder groups, including representatives from the local fishing clubs, have contributed to all aspects of the preparations for the Fisheries Management Plan. These preparations have included the establishment of an Advisory Committee made up of a broad cross section of the stakeholder groups and this Committee is responsible for approving the plan. The project work plan has been designed to include at least two rounds of public input to provide the opportunity for sharing ideas, exchanging information and generating feedback.

Environmental Awards

The Conservation Authority provided technical and financial support to the Chatham-Kent Soil and Crop Association for their Conservation Farmer Award in 2004. Judging was conducted in November and the award was presented at the Chatham-Kent Soil and Crop Association Annual Meeting in December. The award in 2004 went to the Roy Buchannan family farm in the Bothwell area.

For at least 20 years the LTVCA has made a contribution to the Scholarships and Awards Committee of the Ridgetown College. The \$200 award in 2004 was the sponsorship of "Proficiency in Farm Structures and the Environment Award". It was awarded to Dale Eastep of Elora at the convocation in May of 2004. The Ridgetown College offers an excellent program and for years has been a promoter of the conservation ethic in agriculture.



Mr. and Mrs. Roy Buchannan from the Bothwell area, received the Conservation Farmer Award from the Chatham-Kent Soil and Crop Association in 2004. (Photograph courtesy of Peter Epp - The Farm Market News)



Dale Eastep of Elora (left) is presented with the "Proficiency in Farm Structures and the Environment Award" by the LTVCA's Water Management Supervisor - Jack Robertson (right).

Land Use Planning and Regulations

Municipal Plan Input and Review Under the Conservation Authorities Act

Plan input and review is one of the ways the Conservation Authority monitors development and achieves its objectives. The input the LTVCA has on new development near or in the natural hazards like flood plains and steep slopes ensures identification of potential hazards before complications arise. This service is of great importance to municipalities, developers and private individuals who may not be aware of potential hazards.

The Conservation Authority reviewed 30 applications under the Conservation Authority's Fill, Construction and Alteration of Waterways Regulations in 2004. The Board of Directors approved all applications. The following table lists the specific types and numbers of planning development issues reviewed in 2004. Figures from previous years are included:

	<u>2004</u>	<u>2003</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>1999</u>
Official Plans	2	2	2	2	2	2
Official Plan Amendments	8	15	9	22	17	26
Comprehensive Zoning Bylaws	5	0	1	1	1	0
Zoning Bylaw Amendments	137	118	115	125	145	134
Severances	181	66	54	156	156	178
Minor Variances	59	185	160	50	71	69
Plans of Subdivision	8	6	7	8	5	13
Drainage Reports & Maint.	75	44	64	60	42	52
Property Clearances	42	40	48	74	59	61
General Property Inquiries	<u>374</u>	<u>308</u>	<u>292</u>	189	<u>256</u>	<u>262</u>
Total	891	784	752	687	754	797

Table 4: Planning Development Issues Reviewed in 2004

Department of Fisheries and Oceans Drain Classification Project

2004 marked the sixth year of an agreement with the Federal Department of Fisheries and Oceans (DFO) for the review of proposed works in watercourses and their effect on fish habitat as it relates to the Federal Fisheries Act. During the year, the Conservation Authority entered a "Level Two" agreement with the DFO. Level Two status means that the Conservation Authority conducts the initial assessment of the project to identify any impacts on fish habitat. If an impact is foreseen as a result of the proposal, the matter is referred to the DFO. With Level Two status, the LTVCA can also determine how the proponent can mitigate any impacts. Staff attended several conferences and meetings to improve compliance with the Fisheries Act.



This bridge will be replaced with a similar structure like an open bottom culvert. This type of replacement is preferred as it allows free fish passage without disturbing the bed of the system (sand/gravel deposits), allowing for a low flow channel within the culvert section. It allows for larger flow capacities during storm events. The well vegetated banks on either side of the bridge are perfect habitat and help stabilize the banks.



The proposed removal of constricting culverts and replacement with larger ones, will improve water movement through the waterway system.

Solid bottom pipes and concrete box's make it difficult for fish to pass through waterway systems, especially during low flows, and there is always the possibility of the culvert being breached. Water being forced through the culvert during storm events, erodes out below the downstream lip of the culvert, resulting in a drop down into a pool. It is impossible for fish to swim upstream, as this breach acts like a dam on the system. One breached culvert can cause an entire fish population species that utilize that waterway, an inability to spawn. This in turn affects the whole system.

2004 Municipal Plan Input and Review Services

Official Plans					1				1	
Official Plan Amendments	7				1					
Comprehensive Zoning Bylaws	2	1				1	1			
Zoning Bylaw Amendments	114	8	1		4		2	1		7
Minor Variances	35	1	4		1	1	3	4	8	2
Severances	128	15	9	2	1		3	5	6	12
Plans of Subdivision	6	1							1	
Drainage Reports and	39	5	13	6			2	4		6
Property Clearances	36		1			1	2	1		1
General Property Inquiries	188	18	45	4	7	11	25	4	16	28
TOTAL SERVICES PER MUNICIPALITY	555	49	73	12	15	14	38	19	32	56
SERVICES										
MUNICIPALITY										
	Chatham-Kent	Dutton/Dunwich	Lakeshore	Leamington	London	Middlesex Centre	Southwest Middlesex	Southwold	Strathroy-Caradoc	West Elgin

Table 5: Plan Input and Review Services by Municipality 2004

Generic Regulation

On April 14, 2004, the new Conservation Authority Generic Regulation, was signed and approved by the Lieutenant Governor. The proposed Generic Regulation will replace all Conservation Authorities Fill, Construction and Alteration of Waterways Regulations in the Province. The Regulation specifies the content of a Conservation Authority's local regulation under subsection 28 (1) of the Act. The new Conservation Authority or local regulation will be known as the "Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation".

The Generic Regulation requires that the Conservation

Authority produce a local regulation by April 14, 2006. The Conservation Authority was also informed that there will be no provincial funding for the preparation of the new local regulation.

During the year, the LTVCA worked on the preparation of a technical report, which determines the areas in the LTVCA that will be affected by the new Regulation. In early 2005, the Conservation Authority will begin discussion with municipal planning officials who will also be interested in the components of the Regulation.

The technical report will document the LTVCA's request to the Minister of Natural Resources to redefine our Regulatory Flood. In 1996, the Conservation Authority redefined our Regulatory Flood to the 1937 flood event on the Thames River. This is equal to the Regulatory Flood used in the Upper Thames River Conservation Authority and is equivalent to the 1 in 250 year flood. Obtaining the actual approval by the Minister of Natural Resources was delayed from that time, as that was the year when it was determined that Conservation Authorities should have one Generic Regulation. The draft of this flood definition report was completed in 2004.



The 1937 flood event on the Thames River was the event the Conservation Authority used in 1996 to redefine our Regulatory Flood. This is equivalent to the 1 in 250 year flood and the same Regulatory Flood used in the Upper Thames River Conservation Authority.

Forestry

Tree Planting Program

From 1988 to 2004, the Conservation Authority has planted approximately 1,563,280 trees within the Lower Thames Valley Conservation Authority's jurisdiction.

In 2004, a total of 68,228 trees were planted into windbreaks and woodlots on private lands, memorial forests and conservation area nurseries. The cost to landowners for the Conservation Authority to supply trees was varied depending on the species, ranging anywhere from \$0.47 for plugs and \$0.60 and up for bare roots, to \$2.25 per tree for seedling stock. A minimum tree order of \$50.00 was required. The Conservation Authority's machine tree planters were rented by individuals to plant their trees, or trees were hand planted by landowners. The table below outlines the numbers of trees planted or purchased through the Conservation Authority by our municipalities.

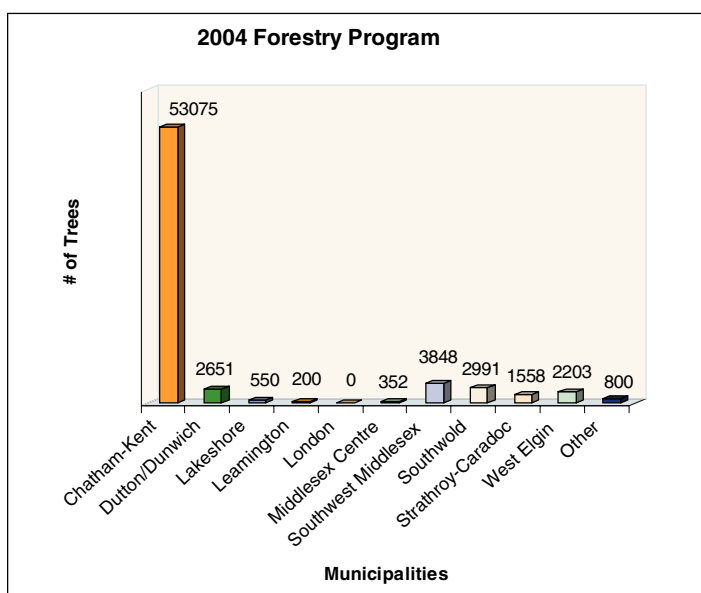


Table 7: Forestry Program By Municipality 2004

TREES SOLD TO INDIVIDUALS FOR PRIVATE PLANTING

Twp. of Strathroy-Caradoc	1,108
Municipality of Southwest Middlesex	3,298
Twp. of Middlesex Centre	0
City of London	0
Municipality of West Elgin	2,203
Municipality of Dutton/Dunwich	2,651
Twp. of Southwold	2,991
Town of Leamington	200
Town of Lakeshore	380
Municipality of Chatham-Kent	43,431
Stewardship Kent	8,744
Ausable-Bayfield Conservation Authority	200
St. Clair Region Conservation Authority	600
Sub-total	65,806

TREES PLANTED IN CONSERVATION AREAS

C.M. Wilson	900
Longwoods Road	450
Big Bend	150
Skunk's Misery	400
Sharon Creek	352
Rowsom's Tilbury West	170
Sub - total	2,422

2004 TOTAL TREES PLANTED 68,228

Table 6: Total Trees Planted 2004

The Conservation Authority purchased tree seedlings from several different suppliers in 2004. The primary sources of trees were private nurseries including Baker's Nursery, Ferguson Forestry Centre, St. Williams Forest Care, Orford Ridge's, Sloan's Tree Farm and Somerville Nurseries.

Tree Species Order Numbers 2004

Cedar, White	18,010	Oak, English	100	Sweet Gum	40
Spruce, Norway	2,650	Oak, Red	1,620	E. Hemlock	40
Spruce, White	5,530	Maple, Hard	960	White Ash	23
Pine, White	6,000	Maple, Red	1,330	Tilia Greenspire	5
Pine, Red	1,200	Maple, Silver	5,348	Red Cedar	600
Poplar, Carolinian	840	Walnut, Black	1,850	Black Locust	600
Larch, European	400	Tulip	950	Scotch Pine	100
Tamarac	550	Ken. Coffee Tree	600	S. Oak	50
Pine, Austrian	1,480	Redbud	100	Pin Oak	50
Birch, White	400	Nanny Berry	910	Button Bush	160
Hickory, Shagbark	1,200	High Bush Cranberry	510	Silky Dogwood	260
Hickory, Bitternut	590	RO Dogwood	1,050	Gray Dogwood	260
Butternut	550	Black Elderberry	910	Am Plum	18
Oak, White	1,300	Am. Sycamore	1,119	Tulip (lg)	9
Oak, Swamp White	1,600	Spruce, Colorado	3,410	Am Sycamore (lg)	6
Oak, Bur	2,300	Serbian Spruce	80		
Oak, Chinquapin	500	Fraser Fir	60	Total	68,228

Table 8: Tree Species Order Numbers 2004

Emerald Ash Borer (EAB)

The cut of trees in the ash free zone was completed with approximately 90,000 ash trees cut and mulched, or removed to a quarantine zone in Windsor. Survey work by **Canadian Food Inspection Agency (CFIA)** staff took place east of the cut zone to help ensure no pockets of beetles were overlooked, with no guarantee that the beetle will not spread further east.

The Province contributed \$1 million dollars through its Forestry Futures Trust to replant trees in Toronto (Asian Longhorned Beetle) and the Essex/Chatham-Kent area with respect to the Emerald Ash Borer devastation. \$6.5 million dollars of Federal funding was to aid affected landowners. The money was divided three ways, for the infestation in Halifax, Nova Scotia (Brown Spruce Longhorned Beetle), the Toronto area and the Essex/Chatham-Kent area. This money was available to those landowners who had an order-to-cut issued by the CFIA.

Unfortunately as the year progressed, pockets of the insect were located east of the cut zone following the elimination of ash trees in the 10 km wide swath in the west end of Chatham-Kent from Lake St. Clair down to Lake Erie. The cut succeeded in slowing the progress of the beetle down, however, the worst culprit for the spread was man, from illegal transportation of firewood and ash products outside of the quarantine zone.

It is difficult to detect the presence of the EAB in a host tree until it has killed the tree as CFIA inspectors can only check the lower trunk. At present, eradication of infected trees is the only option. Chemicals used in the United States are not registered for use in Canada. These chemicals have some degree of effectiveness, but tend to be expensive, hard to apply, are not 100 percent effective and can only be used for a limited number of years. The CFIA is looking into a natural parasite of the insect in China, but studies will have to be undertaken to make sure that the parasite does not have any negative impacts on native species in Canada.

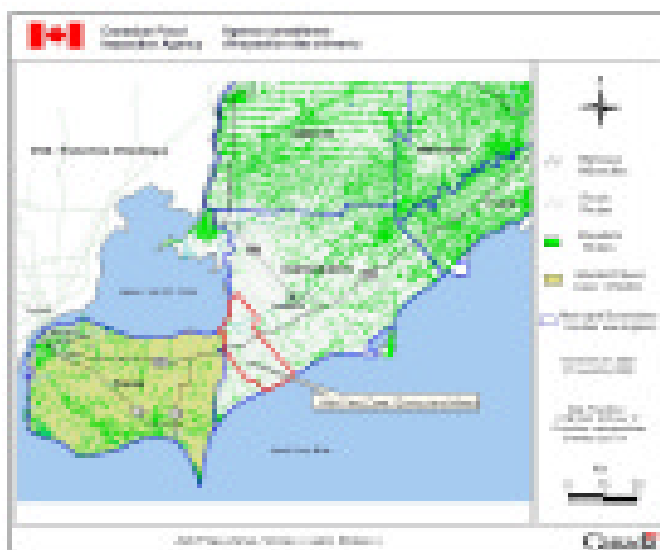
Landowners who received a "Notice to Dispose" in the cut zone or "firewall" area can contact the CFIA for compensation for the tree replacement program and apply for trees for the 2005 tree-planting season. **For more information or to report possible infestations call 1- 866- 463- 6017.**



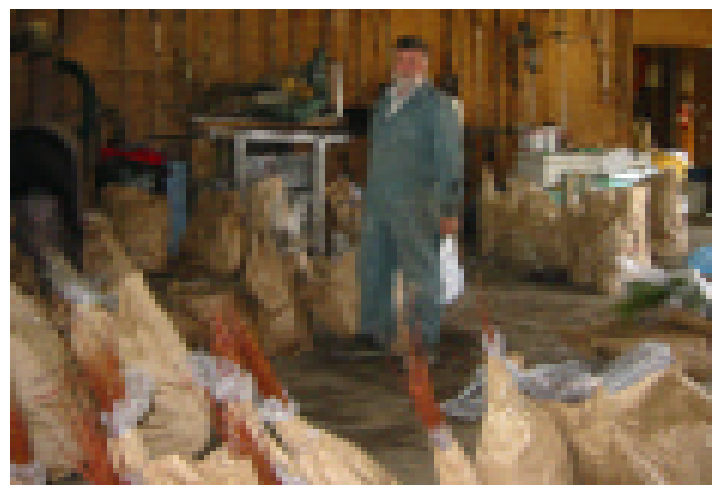
Emerald Ash Borer - photos courtesy of the CFIA web site at: www.inspection.gc.ca.



Approximately 90,000 ash trees were cut and mulched in the ash free zone.



Map 2: "Ash Free Zone" is marked in red. Map courtesy of the CFIA.



Tree seedlings for replacement trees, reforestation or windbreaks can be ordered from the LTVCA through our own tree planting program or through other Government programs including Forest 2020, also delivered by the LTVCA.

Conservation Lands

Our Public Conservation Areas

The LTVCA has acquired land in the watershed to protect environmentally sensitive lands, wetlands, culturally unique features and significant biological, ecological, historical and scenic qualities from development. Over 675 hectares of conservation land have been preserved at 23 sites for public use across the LTVCA watershed and region. It is estimated that well over 1,450,000 people have enjoyed the facilities and programs these areas have to offer.

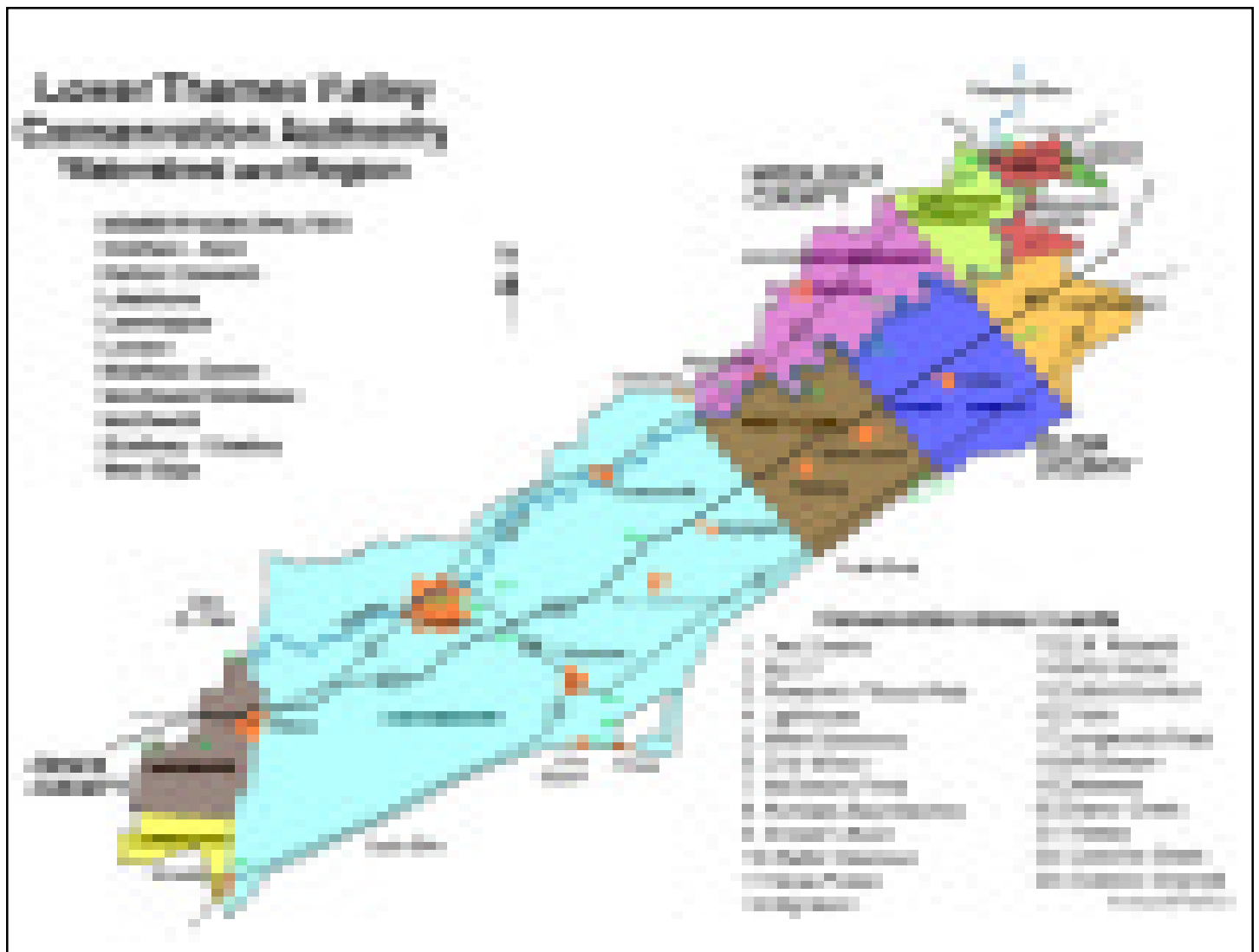
Our conservation areas received regular grounds maintenance throughout the year, including grass cutting, road grading, nature trail trimming and safety checks. Over winter, Longwoods Road and C.M. Wilson Conservation Areas were snow plowed and sanded and equipment was repaired and maintained.



Close to 23,000 people visited Longwoods Road Conservation Area in 2004. This was a decrease of 1,000 people from the previous year. In search of owls, the annual Moonlight Winter Family Hike is always popular.



In 2004, camping and day use at C. M. Wilson Conservation Area totalled 12,672 people. This was a decrease of 2,219 visitors from the previous year. Over 1,500 people rented the Wilson barn pavilion (above).



Map 3: Lower Thames Valley Conservation Authority Watershed and Region

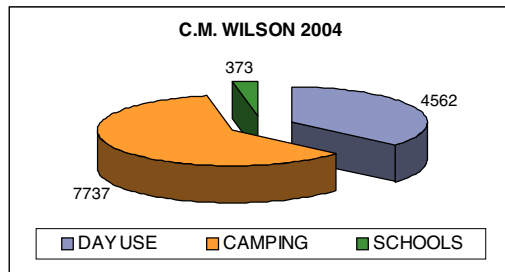


Table 9: C.M. Wilson Conservation Area Visitation 2004

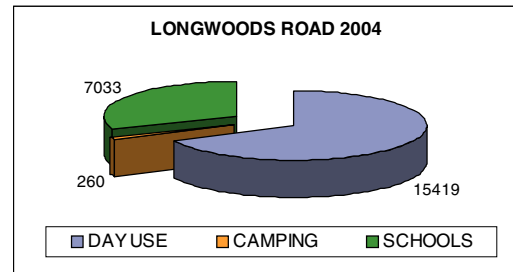


Table 10: Longwoods Road Conservation Area Visitation 2004

A Special Thanks to Our Community Partners! Community groups, volunteers and special employment project staff, help us provide safe, clean and enjoyable conservation areas. Delaware's "Friends of Sharon Creek", and the "Wheatley Two Creeks Association", are committed to the stewardship of the Sharon Creek, and Two Creeks Conservation Areas. Chatham's "East Side Pride" volunteers and Lakeshore's Lighthouse Chamber of Commerce and Cove Marina helped at the Lighthouse Conservation Area. The Middlesex, Elgin and Kent Stewardship Committees also partnered with the LTVCA on numerous conservation area projects. The Environmental Community Opportunities (ECO) Partnership, gave 100's of hours of labour in conservation areas, as did the Ontario Ministry of Natural Resources "Ontario Ranger Program".

MUNICIPALITY																											
FACILITIES	Chatham-Kent										Dutton/Dunwich	Lakeshore				Middlesex Centre		Southwest Middlesex			Southwold	Strathroy-Caradoc		West Elgin			
Land Area (hectares)	35	2.2	30	1.6	20	15	33	39.5	.48	.92	.81	25.4	4.5	47.6	3	36	41	81	3	10	63	7.8	14				
			4562				1000's							1000's		40					15419						
Day Use	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■				
Historic / Museum											■										■						
School Program			373				■							■							7033						
ANSI Site				■	■	■												■			■						
Family Camping			7701													730					■						
Group Camping			36				■					■		50		■					260		2250				
Memorial Forest			■				■					■		■		■		■			■						
Volunteer Groups			■	■	■		■				■			■				■			■						
Pavilion	■		■				■					■									■		■				
Trails / Boardwalks	■		■	■		■	■					■	■	■		■		■			■	■	■				
Fishing			■		■	■				■	■	■		■	■	■				■			■				
Boat Launch										■						■											
Unsupervised Beach			■											■									■				
Picnic Table	■		■			■	■				■	■				■					■	■	■				
Forest	■	■	■	■			■			■		■	■	■		■	■	■	■	■	■	■	■				
Wetland			■		■	■	■			■	■	■	■	■	■	■	■	■			■	■	■				
CONSERVATION AREA LANDS	Walter Devereux	Miller Sanctuary	C.M. Wilson	Sindlair's Bush	Rondeau Bay Marshes	McGeachy Pond	Two Creeks	Diversion Channel	Colborne Street	Dutton/Dunwich	Lighthouse	Rowsoms Tilbury West	Big 'O'	Sharon Creek	Delaware	Big Bend	Ekfrid Forest	Mosa Forest	Crane	Mill Stream/Janes Bush	Longwoods Road	Feasby	E.M. Warwick				

Table 11: LTVCA Conservation Area Facilities, Services and Recorded Attendance 2004

Developments in Conservation Areas

Our Partners and Special Employment Projects

The LTVCA was fortunate in 2004 to receive funding to hire workers for conservation projects in the watershed. Approximately **\$40,781** of special funding enabled the completion of projects over and above those of full time staff in areas of watershed planning, community relations, park visitor services, museum assistance, and GIS. These people gained valuable experience and had an opportunity to work closely with an environmental agency and the public. The Conservation Authority is grateful for the funding, as it was able to augment its programs and services to the public as a result.

Four summer students were hired on \$8,687 of funding from the Federal Government's Summer Career Placement Program, applied for through the LTVCA Foundation. One position was for Ska-Nah-Doht Iroquoian Village and Museum and the other three people worked out of the LTVCA's Chatham Administration Building and the C.M. Wilson Conservation Area. Human Resources Development Canada - Job Creation supplied \$22,302 of funding for five workers on two programs - one clerical for the administration building and four positions to work on the McGregor Creek in Chatham. The Provincial Government's Summer Employment Program through the Ministry of Culture supplied \$1,840.56 (applied for through the LTVCA Foundation) towards one position at Ska-Nah-Doht Iroquoian Village and Museum and through the Ministry of Natural Resources, a \$4,000.19 grant hired two students to work at the Administration Building in Chatham. A Federal Young Canada Works in Heritage grant provided \$2,233.55 to hire one student at the Ska-Nah-Doht Iroquoian Village and Museum. The LTVCA Foundation also supplemented the three summer student positions for Ska-Nah-Doht with \$1,718 of funding.

The Environmental Community Opportunities (ECO) Partnership crew was invaluable during 2004 as workers provided over 5,400 person hours of labour towards Conservation Authority projects in the lower Thames watershed. One of their conservation projects was to install a \$6,000 cattle access restriction fencing project on the Mill Stream. Funding for the fencing was from the Canada-Ontario Agreement (COA) through the Ontario Ministry of Natural Resources and the Middlesex Stewardship Committee.



Road construction began at the Chatham-Kent Children's Safety Village located at C.M. Wilson Conservation Area.



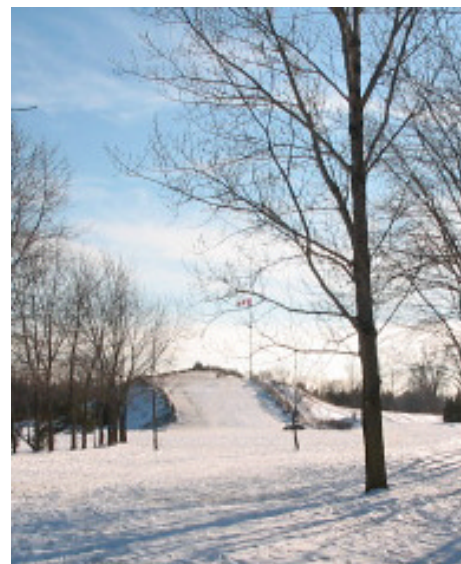
Grade 7/8 students from the Montessori House of Children (London) resurfaced 130 metres of a wheelchair accessible trail at Longwoods Road Conservation Area.



The Eco-Partnership Program Crew assisted the LTVCA with a variety of conservation projects in Middlesex County. They helped to repair the Ska-Nah-Doht Iroquoian Village palisade (left) and install a cattle access restriction fence along a stretch of the Mill Stream (right). Both of these projects were located in the Township of Strathroy-Caradoc.



The Wheatley Two Creeks Association was responsible for the construction of a new pavilion (above) and a toboggan hill (below) at the Two Creeks Conservation Area in the Municipality of Chatham-Kent.



Community Relations

A Part of All Programs

Community Relations activities inform our Directors, member municipalities, watershed and region residents, media and local politicians about all LTVCA's programs and services. Partnering with organizations, volunteers and other stakeholders to help with the conservation of our watershed resources, Community Relations staff participate in special events and tours, initiate and assist with local environmental projects, produce literature on conservation programs and services, design and create displays for fairs and conferences and write articles for inclusion in local newspapers and newsletters. The staff also help with our Foundation's activities. The communication of information and education concerning all the LTVCA's programs and services encourages the wise management of our natural environment in the lower Thames River watershed and region. The following report highlights Community Relations activities in 2004.

The Thames - A Canadian Heritage River!



The Canadian Heritage Rivers System

The Thames celebrated its fourth year as a Canadian Heritage River in 2004. It joined an elite group of the most historic and beautiful rivers in Canada in late 2000. The designation brings recognition, status and an opportunity to leverage local and provincial support for the river's benefit.

The 5th Annual Thames River Clean-up was held May 3, with about 1,800 people cleaning up 200 km. The Natural Outdoor Activity Heritage Conservation Club (NOAH), Upper Thames River Conservation Authority and LTVCA invited



The 4th Annual Thames River Symposium was held in Woodstock on March 28th with approximately 75 people attending.

concerned citizens, landowners and municipalities to participate. In the lower Thames River watershed, volunteers cleaned sections of the river in Lighthouse Cove, Chatham, and Sharon Creek and Mill Stream tributaries. Two issues of the Thames River Happenings newsletter were also produced and mailed out to watershed residents and interest groups. Many thanks to those who contributed articles!

Bus Tour

On September 24, the LTVCA organized a bus tour of the eastern half of the watershed and invited its Directors, Municipalities and guests to attend. The bus tour included a visit to the following Conservation Authority properties: Big Bend, Mosa Forest (Skunk's Misery), Badger & Robinson Memorial Forest, Feasby, E.M. Warwick, Crane, Sharon Creek, Delaware, Mill Stream and Janes Bush, Longwoods Road, Ekfrid Forest, and Dutton/Dunwich. The tour also included information on the Backus-Page House Museum, John E. Pearce Provincial Park, St. Peter's Anglican Church, St. Peter's Cemetery, and Talbot Creek.

Tour participants learned more about the Provincial well water monitoring program, DFO drain classification and electro-fishing, the Thames River Aquatic Species at Risk Recovery Strategy, the memorial forest program, the Trans Canada Trail network, Lake Erie shore developments, and viewed some cultural heritage sites.

An electro-fishing demonstration was viewed at the Talbot Creek.



The bus made a stop along Lake Erie at E.M. Warwick Conservation Area.

A tour of Ska-Nah-Doht Iroquoian Village and Museum was held following a lunch at Longwoods Road Conservation Area.



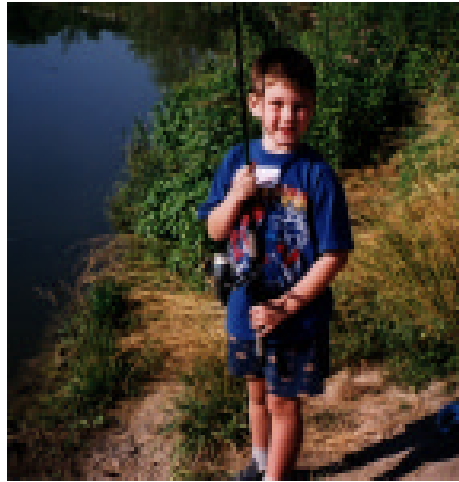
Year-round Special Public Events

Exploring the natural environment is made fun at the special events organized in our many conservation areas. Whether learning about endangered species or habitat restoration, enjoying an activity like hiking, canoeing or bird watching, reliving local history or listening to an outdoor concert, the LTVCA joins with great partners, provides ideal locations and has the expertise to offer year-round activities for everyone! Effort is made to host or help partners organize events in as many of our conservation areas as possible.

The Conservation Authority is grateful to the many volunteers and groups who have organized derbies, festivals, and other special days in the conservation areas for their communities across the watershed. Longwoods Road Conservation Area in the Township of Strathroy-Caradoc holds annual events all year round. Other conservation areas which held public events in 2004 included Two Creeks and C.M. Wilson, located in the Municipality of Chatham-Kent, Mosa Forest in Southwest Middlesex and Sharon Creek in the Township of Middlesex Centre. Pictures capture some of the events involving the LTVCA in 2004.



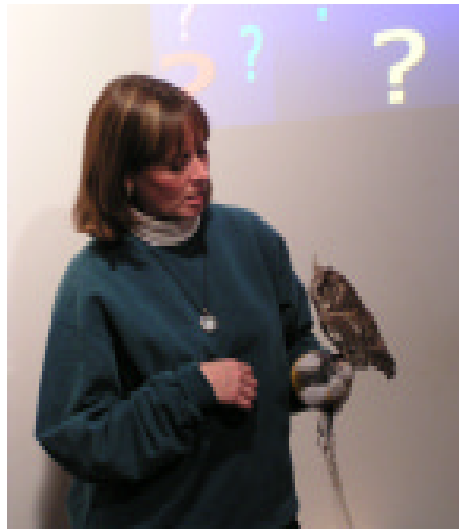
"Royal Scots" hosted an education day for over 800 students prior to Longwoods Heritage Weekend.



The Friends of Sharon Creek held their Family Fishing Day at Sharon Creek Conservation Area.



The Longwoods Summer Nature Day Camp was a hit for the youngsters once again!



Over 100 visitors enjoyed the Longwoods Moonlight Winter Family Hike.

Other Communications Products

- two issues of the 'Lower Thames Beacon' newsletter
- 2003 Annual Report
- Powerpoint presentation of the annual report given to all member municipalities
- conservation area brochures
- displays and exhibits
- Website updated regularly (10,277 hits in 2004)
- Publications viewed on the LTVCA's website at www.lowerthames-conservation.on.ca/Publications. Media releases are also posted on our website.



An LTVCA Directors' Handbook was written and an orientation session was held for new Directors.



A few visitors ventured out in the showers to enjoy a spring wildflower hike at Longwoods.

Education Programs

The Lower Thames Valley Conservation Authority offers two different education programs for students - native studies at the Ska-Nah-Doht Iroquoian Village and Museum, and conservation education. This page summarizes the 2004 activity in each, and highlights the numbers of education programs conducted in our member municipalities and beyond.

	SKA-NAH-DOHT IROQUOIAN VILLAGE						COMBINATION SKA-NAH-DOHT and CONSERVATION EDUCATION				CONSERVATION EDUCATION LONGWOODS ROAD C.A.					
	# Adults free	# Adults paid	# classes half day	# Students		# classes full day	# Adults free	# Adults paid	# classes full day	# Students Full Day	# Adults free	# Adults paid	# classes half day	# Students		# classes full day
				Half Day	Full Day									Half Day	Full Day	
January	34	2	4	91	85	4					5	2	1	17		
February	67		4	113	408	16										
March	33		3	64	182	7										
April	40		3	39	210	10	5		1	21	17	1	5	108		
May	126	25	6	134	626	25					43	8	8	156	43	2
June	151	21	12	229	513	24	20	4	4	99	89	10	17	362	75	3
September	38				250	11					14		5	139	47	2
October	109	12	12	274	531	21					104	26	20	446	124	5
November	179	5	17	384	717	29					23				107	5
December	65	4	2	37	402	15										
TOTALS	842	69	63	1365	3924	162	25	4	5	120	295	47	56	1228	396	17

	CONSERVATION EDUCATION C.M. WILSON C.A.						CONSERVATION EDUCATION SHARON CREEK C.A.				CONSERVATION EDUCATION OUTREACH					
	# Adults free	# Adults paid	# classes half day	# Students		# classes full day	# Adults free	# Adults paid	# classes half day	# Students Half Day	# classes quarter day	# Students Quarter Day	# classes half day	# Students		# classes full day
				Half Day	Full Day									Half Day	Full Day	
January																
February																
March												17	395			
April												2	34			
May	5		1	26								4	92			
June	30	7	6	140												
September																
October	26	5	8	207												
November													2	54		
December																
TOTALS	61	12	15	373	0	0	0	0	0	0	23	521	2	54	0	0

Table 12: Education Programs Statistics 2004

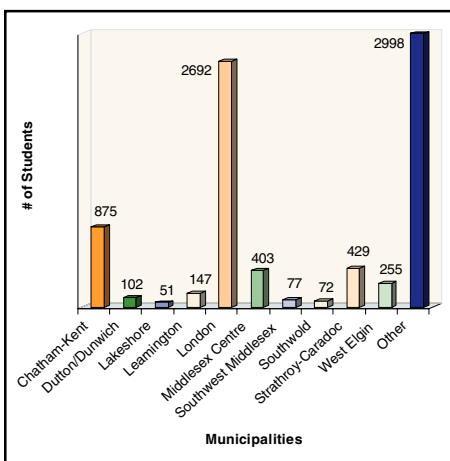


Table 13: Education Programs by Municipality 2004

Thanks For Your Support!

The LTVCA recognizes the generous support of the **Lower Thames Valley Conservation Foundation** and its many partners who made contributions towards the success of our education programs. We acknowledge the financial support from our **watershed Service Clubs**, **BMO Foundation of Hope**, **Wittland Investments**, **Chimo Farms**, **Mt. Brydges Royal Canadian Legion**, **The Brooks**, **The Flegels**, **The Schofields**, **Longwood Kennel**, **McKinlay Funeral Home**, **John C. Badder and Badder & Robinson Funeral Homes** and participants in the **Foundation's Golf Tournament**. Summer students were hired through the **Summer Career Placement Program (HRDC)**, and the **Federal Young Canada Works in Heritage Organizations** grant. The Conservation Foundation assisted in these applications. Other services made possible by the Foundation included email and internet access at the Resource Centre and the LTVCA's website.



Ska-Nah-Doht Iroquoian Village & Museum at Longwoods Road Conservation Area

Summer Staff

Five students on four different work projects including Summer Career Placement - Human Resources Development Canada, Summer Experience Program - Ministry of Culture, Young Canada Works in Heritage - Canadian Museum Association and Chippewa of the Thames Summer Student Placement, worked well together and on their own projects through another busy summer. Two weekend staff also hired for the summer, kept the tourists informed at the gatehouse and the Resource Centre.



Summer students "fire" clay pots a traditional way inside Ska-Nah-Doht Iroquoian Village.

The students helped the staff with group tours, special events, summer day camp, researched and developed two new exhibits and created a high school educational kit. They managed to open one of the cabins for children's crafts and experiment with firing pottery in the village. Day to day work freshened up the permanent displays around the village and museum, and involved meeting and greeting the public. The 2004 summer staff did an exceptional job!

Iroquoian Village Committee 2004

Chairman: Don Fairbairn

Vice-Chair: Ron Watts

LTVCA Appointed:

- Jack Lorimer • Stan Lidster
- Jerry Campbell • Brian King
- Joe Reily • John Yokom

Community Members:

- Andy Chisholm • Glenn Stott

The Ska-Nah-Doht Budget

The budget for 2004 was \$160,674 including \$8,550 received from the Community Museum Operating Grant, Ministry of Culture.

Special Events

The annual events took some hard hits in 2004, starting with the disappointing lack of participants for the spring hike in April. Both "Nightwalk with the Spirits" in August and "A Taste of Fall" in October saw the lowest public turnout to date. Even "Archaeology Day" in July had the least participants in its history.

The people who do come out to these events really enjoy themselves and are treated to some great entertainment and information. But, the weather plays such an important role in these events and Mother Nature was just not cooperating! All these events are under review and may not be "annual" in 2005.



April spring showers did not dampen the spirits of some visitors during a tour of the village at a special event.



The Hunting Simulation Game is a very popular workshop available on full day school field trips to Ska-Nah-Doht Iroquoian Village and Museum.

Education Programs

The 2004 school programs were as busy as ever and one of our most successful seasons in years. A total of 5,409 students visited (3,924 enjoying full day programs and 1,485 participating in half day tours). Teachers and parents numbered 940 in attendance. Another 617 experienced life 1,000 years ago on organized group workshops and tours throughout the year.

Conservation Education

Field Trips

2004 proved to be a busy year, with 2,117 elementary and secondary students, plus 444 adult supervisors, participating in field trip conservation education programs at two conservation areas- Longwoods Road (in the Township of Strathroy-Caradoc) and C.M. Wilson (in the Municipality of Chatham-Kent).



Warming up in the Resource Centre after a winter walk in the woods!

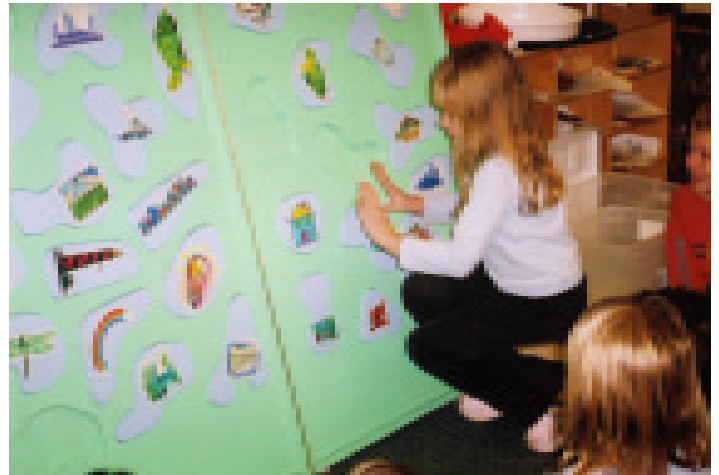
Conservation Workshops

Approximately 230 youth participated in different workshops at Longwoods Road Conservation Area and outreach workshops. Education staff visited a local day camp, presented a birding workshop at the library in Strathroy and discussed wetlands with Art for Earth students at the London Public Library. Badge work for youth groups included Owl Prowls, Winter Cubbing, Naturalist and World Conservation. The Predator Prey game was part of a birthday party celebration!

In addition, Longwoods trails and boardwalks received maintenance from an "Envirothon Group" of high school students and the Montessori grade 7 and 8 students in 2004. Many thanks for all their hard work!

Classroom Programs

A total of 575 students were taught conservation programs in the classroom, including Soil Ecology, Birds Through the Seasons, Food Chains, and Aquatic Species at Risk programs. It was the third year for the River and Creek Safety Program, thanks to the generous donations from the *Mt. Brydges Legion, Delaware Legion, West Lorne Optimist, Rodney Kiwanis, Delaware Lions, Mt. Brydges Optimist, Glencoe Lioness, Delaware Lioness, Mt. Brydges Lioness, Elgin West Chapter IODE, Rosemary Ur, and the Township of Southwold*. This program is designed to equip students with knowledge to make wise decisions about personal safety around waterways, especially the Thames River. During March and April, LTVCA staff visited 12 of the 16 targeted watershed schools (19 classrooms - 429 Grade 2 students) to deliver a lesson on River and Creek Safety, in the municipalities of Southwest Middlesex, West Elgin, Dutton/Dunwich, Southwold, Middlesex Centre and Strathroy-Caradoc.



The "giant water puzzle" is a favourite activity for the Grade 2 students during the in class River and Creek Safety Program.

Aquatic Species at Risk



A new Species at Risk Program has been developed for secondary schools in the lower Thames watershed. This program is linked to the Grade 10, 11 and 12 Ontario Curriculum. It offers support material for teachers concerning the Thames watershed and the aquatic species at risk living in the Thames River. A field component offers students a chance to get involved in assessing the health of stream through biomonitoring.

Celebrating the 'Guardians of Longwoods'



Longwoods staff hold a BBQ every July to celebrate the "Guardians of Longwoods". Volunteers participating in every aspect of our operations have attended. Maintenance and exhibit helpers, event volunteers, photographers, military re-enactors, and Directors from the Village, Conservation Authority and Foundation have come out to enjoy the summer's evening.

Lower Thames Valley Conservation Foundation

Executive Summary

The Lower Thames Valley Conservation Foundation (LTVCF), works in partnership with the Lower Thames Valley Conservation Authority, helping to raise funds to encourage wise management of our renewable natural resources. The Conservation Foundation was created to cultivate and enhance all aspects of conservation, helping to provide present and future generations with a safe and healthy environment, which includes our natural and cultural heritage resources.

Since it was incorporated 9 years ago, the Lower Thames Valley Conservation Foundation has been successful in raising nearly \$340,000 for natural and cultural heritage conservation. The Foundation is pleased to have helped fund reforestation, conservation area development and outdoor education. These are programs and services of the Lower Thames Valley Conservation Authority that have undergone severe grant reductions and require 'partners in conservation' to continue.

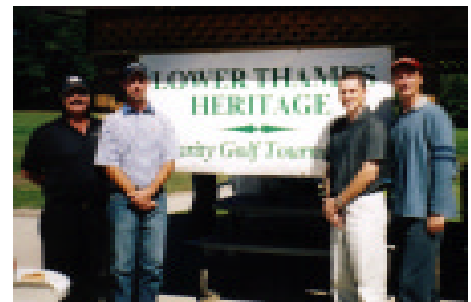
By supporting the Conservation Authority's programs, communities of the lower Thames River watershed and region are able to enjoy a healthier quality of life. Our Board of volunteer Directors meets six times annually. It is our goal to encourage existing and new 'partners' to join with us to ensure the continuation of these services. The Lower Thames Valley Conservation Foundation is an independent non-profit, registered charity. Tax receipts are issued for all donations over \$10.00. Our Registered Charitable Number is 89819 8171 RR0001.

LTVCF Highlights & Activities of 2004 include:

- The generation of over \$36,000 for conservation projects.
- Over 370 memorial trees were planted in 2004, in the seven Memorial Forests. This growing Memorial Forest Program is operating at the McKinlay Woodlands in the C.M. Wilson Conservation Area, the Elliott-Madill Memorial Forest in Sharon Creek Conservation Area, Rowsom's Tilbury West Memorial Forest in Rowsom's Tilbury West Conservation Area, the Arn Memorial Forest in Big Bend Conservation Area, the Comber District Historical Society Memorial Forest at Comber District Historical Society Agricultural Museum, the Badder & Robinson Memorial Forest at the Mosa Forest and the Tilbury Northside Memorial Forest in Tilbury.
- An Interpretive Trail Sponsorship Program continued at Longwoods Road Conservation Area.
- Funding applications were submitted to corporations, government agencies, service clubs and other philanthropic organizations to undertake projects and programs which assisted the Conservation Authority.
- The Foundation assisted volunteer organizations with their fund-raising efforts. The 'adoption' of projects, included improvements to the Sharon Creek Conservation Area through the 'Friends of Sharon Creek' volunteers, and the Sharon Creek Trust Fund.
- Special fund-raising events were sponsored such as the Annual Lower Thames Heritage Golf Tournament, and the Moonlight Family Winter Hike at Longwoods.
- Directors volunteered their professional expertise in areas such as communications, marketing, broadcasting, law and education.



Annual dedication services were held in three of the seven memorial forests. Over 370 memorial trees were planted in 2004.



Foundation Directors organized the 2nd Annual Lower Thames Heritage Golf Tournament in 2004, raising conservation awareness and over \$3,000.



In 2004, nominated Foundation Directors received 5 and 10 year pins for their continued support through the Ontario Volunteer Service Awards.

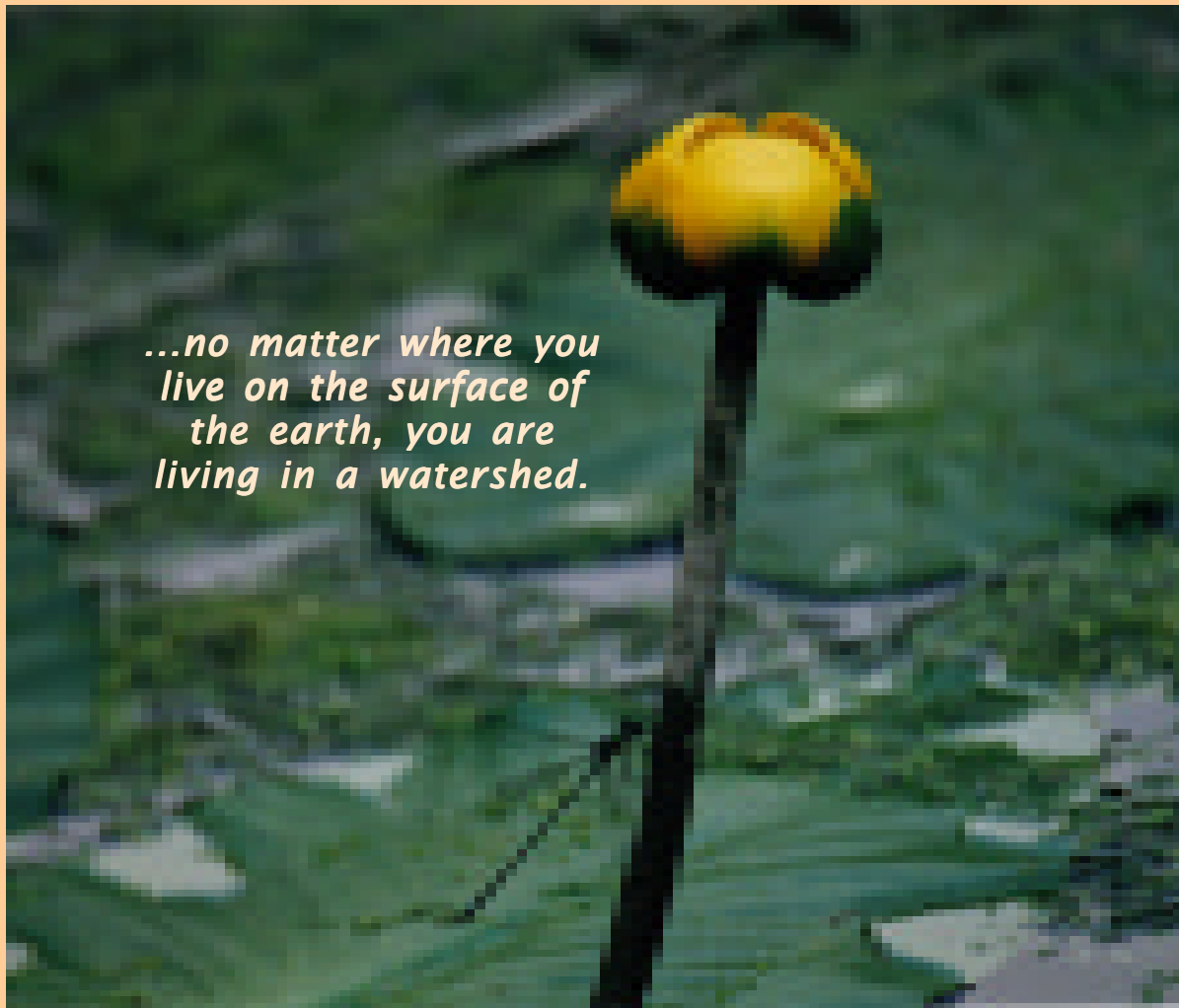
Notes

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Visit our website at: www.lowerthames-conservation.on.ca



The Canadian Heritage Rivers System



***...no matter where you
live on the surface of
the earth, you are
living in a watershed.***

***The Lower Thames Valley Conservation Authority
is one of 36 Conservation Authorities in the Province of Ontario.***

***Our area of jurisdiction lies over the watersheds of all streams, which drain into the
Thames River from the Village of Delaware, to Lake St. Clair. Our southern boundary
has jurisdiction over the watersheds of all streams which drain into Lake Erie, from the
Talbot Creek watershed in the east, to the Two Creeks watershed in the west.***

***Our total area of jurisdiction covers over 3,275 square kilometres (1,264 square miles) in
southwestern Ontario and is home to 106,971 people.***