

**THE UNIVERSITY OF WESTERN ONTARIO
DEPARTMENT OF CIVIL AND
ENVIRONMENTAL ENGINEERING**

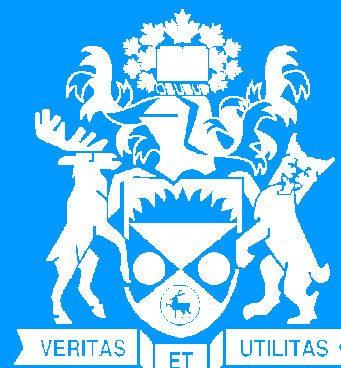
Water Resources Research Report

A web-based Flood Information System

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Abstract

The web has become a major source of information for many water resources management tasks. With the growing popularity of the Internet, it provides a convenient, accessible way to provide the public with flood-related information. The present study focuses on web dissemination of information on flood risk and vulnerability to different types of users; general public, decision makers, and professionals. By gearing the display and representation of risk to each user, the information can be better understood and facilitate the flood management process. A user-friendly web-based flood information system is developed to provide flood risk, different components of flood vulnerability, exposures and hazards by postal codes. Geographic Information System (GIS) is used to facilitate the data processing, calculations and data management. It also provides spatial distribution of data, and the opportunity to 'map' vulnerability.

Vulnerability refers to the susceptibility of an area to damage. Vulnerability, as considered in this study includes physical, economic, infrastructural, and social components. By identifying the areas of high risk and vulnerability, it is possible to make more informed flood management decisions. The present study has introduced an infrastructural component of risk which addresses the vulnerability of roads, railways, road bridges and critical structures (hospitals, schools, fire stations, etc.). All components of vulnerability are standardized and represented using a value between zero and one. The overall vulnerability for different postal code regions is determined by 'averaging' all components of vulnerability.

The developed methodology for determining different components of vulnerability and risk is demonstrated for six major damage centers (i.e., London, St. Marys, Ingersoll, Mitchell, Stratford and Woodstock) in the Upper Thames River basin, Ontario, Canada. The relevant data are collected from Statistics Canada, Upper Thames River Conservation Authority, Canadian Homebuyers Guide, and the GIS databases at The University of Western Ontario.

Acknowledgements

First of all I want to thank Professor Slobodan P. Simonovic for providing me with a summer research position. He has broadened my knowledge in the Water Resources Engineering. I would also like to thank him for the software and facilities he provided for me to complete my research. Fortunately, there were a few people who helped out with this web-based flood information system. Amanda Collins from Statistics Canada guided me in the direction where to find all the economic and social data that web-based system was built around. All the flood line hazard maps were provided by Mark Helsten from The Upper Thames River Conservation Authority and processed by my co-worker Angela Peck. I would also like to give a big thanks Dr. Subhankar Karmakar for guiding me through the whole project step by step.

I. INTRODUCTION

This report presents the findings and methodology of flood risk vulnerability and a web-based flood information system development for the Upper Thames River Basin. The term 'flooding' indicates a natural process of over-bank flow which periodically may occur onto lands not usually submerged, because the banks of river channels are unable to contain high discharges of water. Floods are a natural phenomenon and become a problem if areas susceptible to flooding are inhabited by humans and/or used for economic activities. In the present study, vulnerability refers to the land and properties being liable to damage. Therefore, if a flood occurred these areas may be susceptible to physical damage.

In terms of floods risk, urbanization is increasing the vulnerability of many alluvial areas close to rivers, i.e., floodplains. As a consequence, the economic and social impact of flooding in a specific area in the last decades has become much greater than in the past centuries. Flood risk analysis is in terms of economic and social damages.

'Flood management' is a broad spectrum of water resources activities aimed at reducing potential harmful impact of floods on people, environment and economy of the region. The 'flood hazard assessment' implies the analysis of the probability of flood occurrence in terms of return period and frequency of peak discharges. Developing flood hazard maps for a particular drainage basin implies the analysis of stream flow data from gauging stations over a period of years.

This report presents an attempt to make all flood related information available to various stakeholders in order to: (a) assist the flood management process (planning, emergency management and flood recovery); and (b) increase the awareness of stakeholders to flood risks that they may be exposed to.

1.1 Study objectives

Objectives of the presented work include: (i) finding suitable flood vulnerability indicators or indices, and developing methodology for their integration; (ii) finding the impact of flooding on critical infrastructure and indirect impact from its vulnerability; (iii) assessing spatial flood vulnerability for different postal code regions within the basin; (iv) developing a web based prototype for systematic presentation of detailed information on flood risk, vulnerability and exposure; (v) prioritizing the vulnerability mitigation schemes ; (vi) displaying the information using the web to all types of information users; and (vii) developing an interactive analysis tool for flood risk calculation as a consequence of a change in land use.

1.2 Web-based model

A web-based model is developed to display information such as flood risk vulnerability and exposure. This model is available for the general public, various decision makers and flood management professionals. The Upper Thames Conservation Authority has mapped out the probability of floods occurring every 1:250 years and 1:100 years in the Upper Thames River watershed area using GIS. These GIS maps are called Flood line maps, and can be viewed in Figure 1. These maps show areas vulnerable to floods.

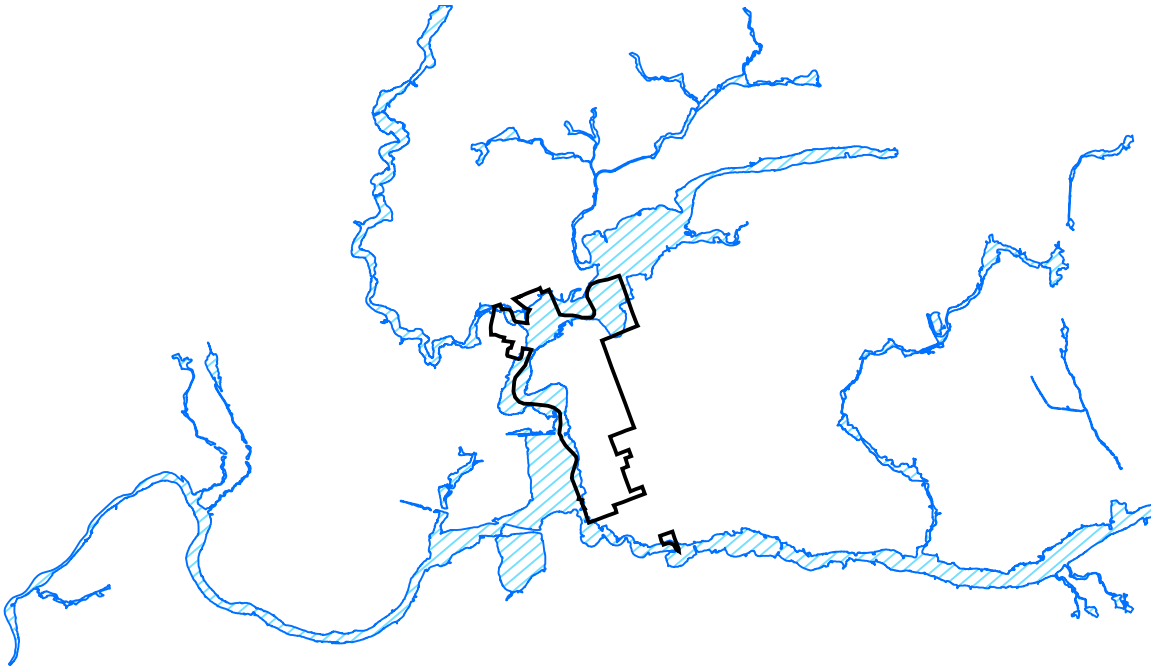


Figure 1. The hazard map representing 250-year flood line ('Black' line represents a postal code, and the 'Blue' represents the 250-year flood line).

1.3 Vulnerability mitigation schemes

A web-based model provides a tool for prioritization of flood prone areas. These priorities can assist in making decisions on structural and non-structural flood control measures. Also, they can assist in the development of effective evacuation plans by responsible agencies. A web-based model provides information to general public too. Using this information source, families can develop their own evacuation plan, or invest in implementing various protective measures against flooding.

1.4 Types of users

The Web-Based model will support three types of users; general public, professional, and decision makers. General public is provided with limited calculations and information will be explained in simple terms. Professional users, on the other hand, are provided with all the analyses tools, calculations and information derived from these calculations. The third type of user is a decision maker, a person responsible for making important flood-related decisions for the larger area (community, county, river basin, etc.). They are provided with the detailed information on flood hazard and vulnerability as well as analytical tools to assist them in analyzing various flood mitigation scenarios.

1.5 Literature on web design for flood management

The work presented in this technical report deals with the development of a web-based flood information system, which provides risk information for different spatial locations, considering detailed information on flood hazard, exposure, and vulnerability. The extent of the literature review is therefore confined to provide a broad overview of methods used for developing web information system with specific reference to flood disaster management.

Holz et al. (2006) present a web-based information system for flood management in emergency flood situations provides real-time information for citizens in flood prone areas about flood development, as well as better coordination of resources and activities during pre-flood planning and post-flood recovery. The model has the capability of online forecasting and flooding calculations but does not consider aspects other than hydrologic inputs, e.g., social, economic and infrastructural aspects, for flood management. Mainly the study served for illustrating Information and Communication Technology (ICT) based decision support solutions and testing new methods for flood forecasting by neural network methodology.

Lia and Chaub (2006) discuss a traditional flood forecasting and operation of reservoirs in China based on manual calculations and standalone computer programs.

The main drawbacks of all these methods are the lack of communication. A web-based flood forecasting system brings significant convenience to personnel engaged in flood forecasting and allows real time contribution using the traditional method of calculations within a web-based flood information system should allow for almost real time action, and give people the information needed about flooding in their area.

Chakraborty et al. (2005) developed two new quantitative indicators, i.e., a geophysical risk index, based on National Hurricane Center and National Flood Insurance Program data, and a social vulnerability index, based on census information. The study examines spatial variability in evacuation assistance needs as related to the hurricane hazard. The results indicate that geophysical risk and social vulnerability can produce different spatial patterns that complicate emergency management, which indicates the necessity of consideration of geophysical and social components of vulnerability for hazard management. It also discusses the importance of considering characteristics of local population in risk-vulnerability assessment.

The environmental agency of the United Kingdom is responsible for maintaining the website for flood information dissemination. Around 5 million people, in 2 million properties, live in flood risk areas in England and Wales. The Environment Agency and the web based information system have an important role in warning people about the risk of flooding, and in reducing the likelihood of flooding from rivers and the sea. The website can be found at: <http://www.environment-agency.gov.uk/subjects/flood/?lang=e>.

II. DETAILS OF STUDY AREA

II.1 General description

The Upper Thames river basin lies in the middle of South Western Ontario, and drains 3,432 km² of area, and is populated by approximately 422,000 people. Land use in the watershed is about 80% agricultural, 10% urban and small towns, and 10% forest cover. The Thames River is comprised of two branches which meet at a confluence in London (known locally as 'The Forks'). One branch drains the northern portion of the watershed (North Thames River, 1,750 km²) and the other drains the southern portion of the watershed (Thames River, 1,360 km², above the Forks). Downstream of the Forks, the river eventually exits the upper portion of the Thames river basin and enters the lower, ultimately flowing into Lake St. Clair. Flows on the river are attenuated by 3 major flood control structures, one on Trout Creek (the Wildwood reservoir), a tributary of the north branch, one on the North Thames river directly upstream of London (the Fanshawe reservoir) and one in the upper reach of the Thames river in Woodstock (the Pittcock reservoir). Other than these three flood control dams there is also a series of dykes in London, and a flood wall in St. Marys. A location map of Upper Thames river watershed is shown in Figure 2.

The Upper Thames river basin has a long and well documented history of flooding, going as far back as the late 1700's. Major flood damage centers in the watershed include – London, St. Marys, Ingersoll, Mitchell, Stratford and Woodstock. Figure 3 shows the locations of these damage centers in Upper Thames river watershed.

The Upper Thames river basin is an area of special importance for the socio-economic development of Ontario in the sustainable direction. This is a large and fertile area, and plays an important role in agriculture production from, fishing and aquaculture, and perennial fruit trees. Although the flood in the Upper

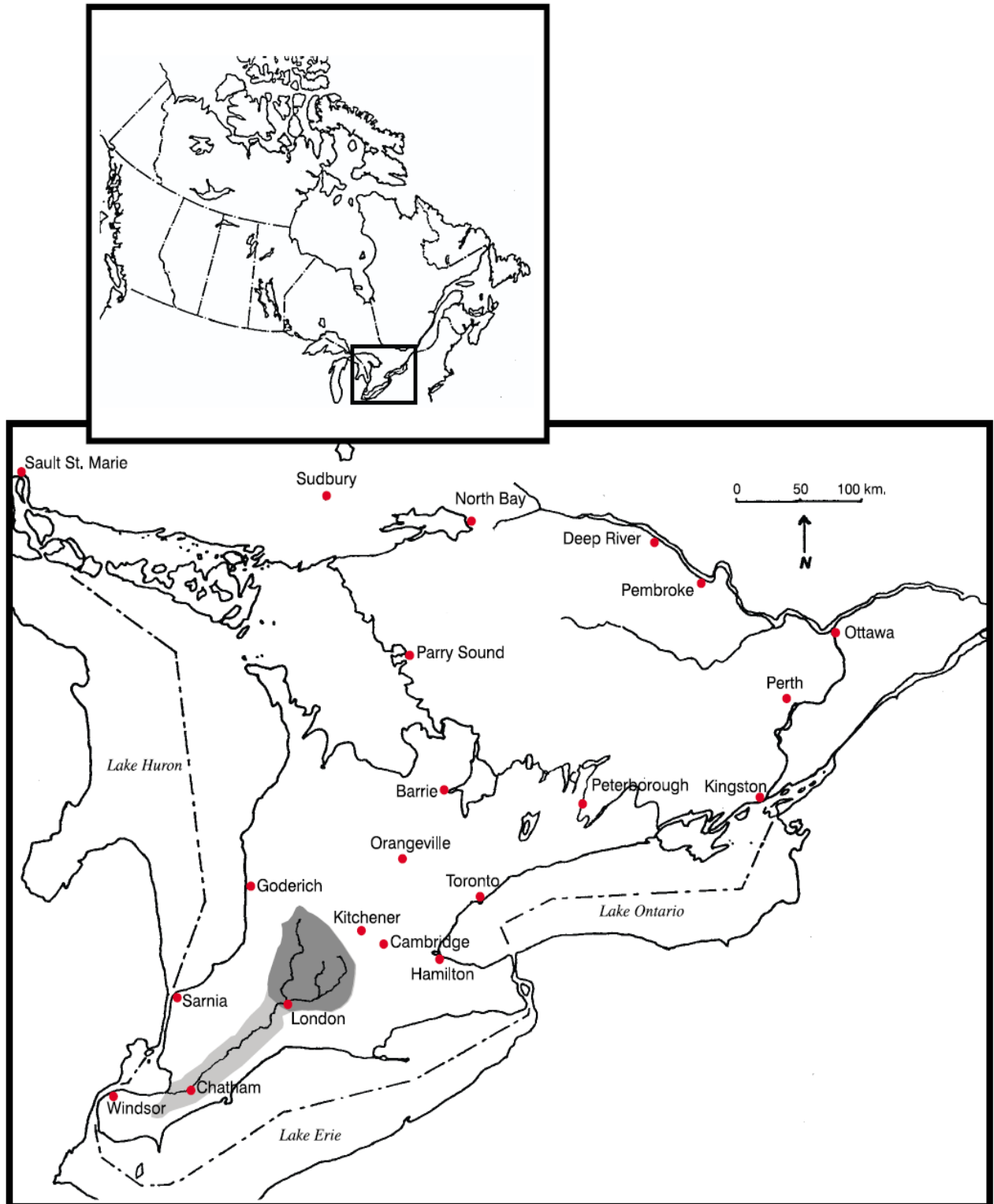


Figure 2. Location map of the Upper Thames River watershed (Source: http://www.thamesriver.on.ca/Watershed_Report_Cards/images/Chapter1.pdf)

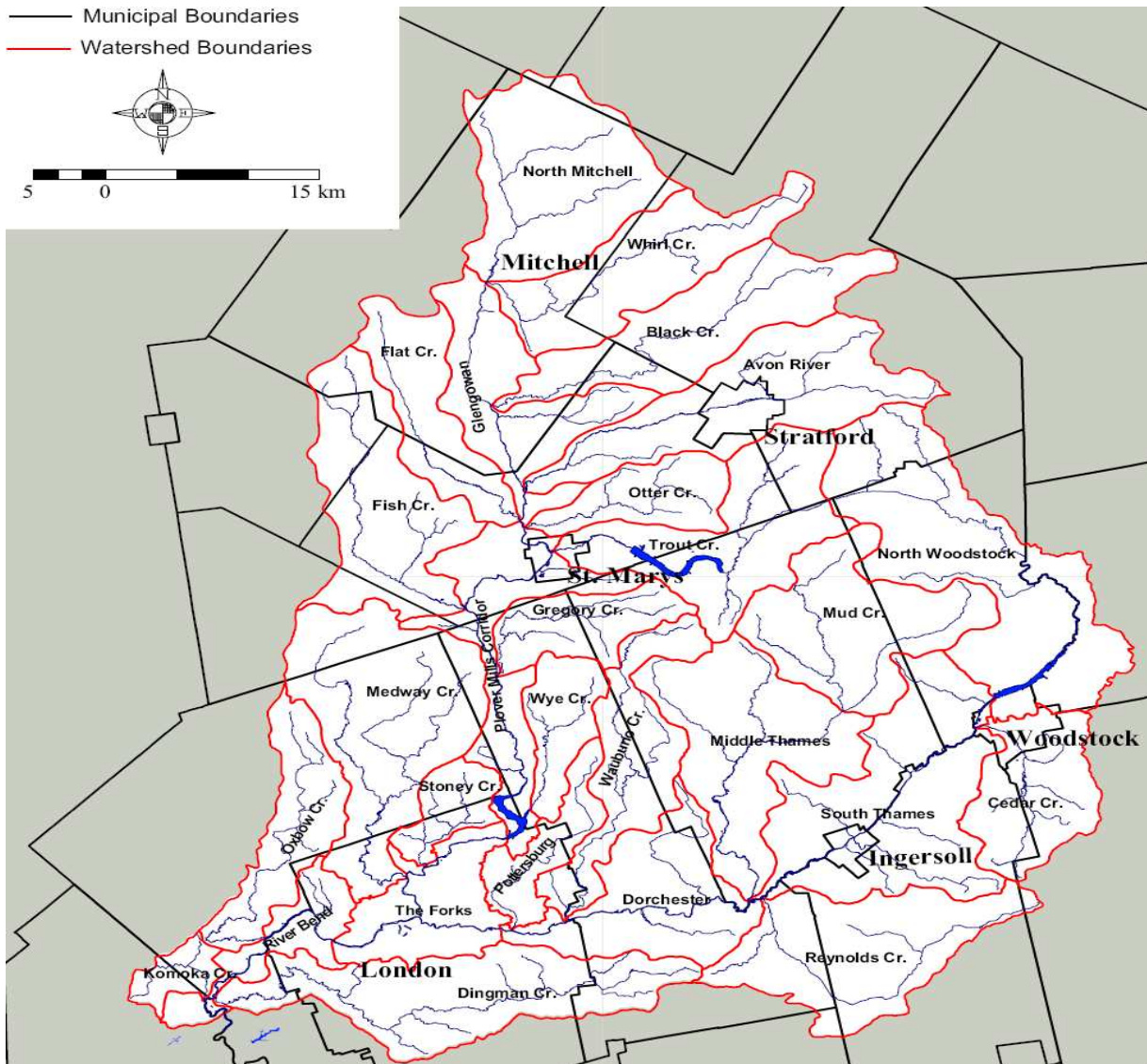


Figure 3. Map of 28 subwatersheds of the Upper Thames River watershed (Source: http://www.thamesriver.on.ca/Watershed_Report_Cards/images/Chapter1.pdf)

Thames river watershed has the great effect on the fertility for the soil, increase in the natural aquatic production; and it is also the most dangerous natural disaster affecting the economic development and the life of the people in the area. Flood and inundation in this watershed causes many damages to property and life, to agriculture and infrastructure, and contributes to the stagnation of socio-economic activities in the

watershed. Several studies have already been done to estimate the economic damage in the watershed due to flooding. The economic damages are mainly calculated by considering four damage categories, e.g., commercial, residential, industrial, and public. The flood damage study by Helsten and Davidge (2005) is used to estimate the economic damage.

II.2 Spatial extent of the study

The Web-based information system is developed using data represented by Forward Sortation Areas (FSA). FSA are the first three digits of a postal code. The vulnerability and flood risk are presented for six major damage centers (i.e., London, St. Marys, Ingersoll, Mitchell, Stratford and Woodstock) in the Upper Thames river basin. London is the major damage center which has 17 FSA's; N5V, N5W, N5X, N5Y, N5Z, N6A, N6B, N6C, N6E, N6G, N6H, N6J, N6K, N6L, N6M, N6N, and N6P. St. Marys is represented by the FSA N4X. Mitchell is represented by the FSA N0K. Stratford is represented by the FSAs N5A and N4Z. Woodstock is represented by the FSAs N4S, N4T, and N4V. Ingersoll is represented by the FSA N5C. The Appendix B represents the maps indicating the location of postal codes in a damage center.

II.3 Data collection

Numerical data is obtained from Statistics Canada in tabular form. Statistics Canada is an advantageous source of data because updated national statistics are provided consistently every five years following a Census of the population. It is a reliable source of data with the most accurate national statistics available for Canada. Statistics Canada provides a breakdown of data into areas of various sizes, including Forward Sortation Areas, and offers a break down of data into small census divisions which remain relatively stable over many years. This facilitates the process of updating the data and risk calculations. Geographical Information System tool (GIS) provides data with spatial distribution. It is possible to combine census data with GIS data to obtain valuable data to use for processing. GIS datasets can contribute surficial geology characteristics, land use, physical features, and the location of structures, bridges,

vegetation, quarries and important facilities. The graphical data used in this project has been collected from a variety of sources, all compatible with the ArcGIS software. Sets of data can be provided in vector (geometric shapes) or raster (grid-based) format. Vector data is used in the present study and features of vector datasets can be represented as points, lines, or polygons. Layers and datasets were collected from Statistics Canada, The Ontario Fundamental Dataset, Upper Thames River Conservation Authority, Surficial Geology of Southern Ontario dataset, and Route Logistics. These datasets were available online or obtained from the Serge A. Sawyer map library or the IDLS library at the University of Western Ontario. The Appendix C provides all the raw data on land use patterns, permeability of soil, and social data for different postal code regions. The social data include the details of earnings and income, education, families and dwellings, health, population and work.

III. WEB SYSTEM DEVELOPMENT

For better understanding of the how to design a web-based flood information system, it is important to introduce the terminology used in this work.

III.1 Some relevant definitions

III.1.1 Flood vulnerability

Flood vulnerability is defined as a measure of degree of susceptibility of a region or population to flood damages. Therefore, flood vulnerability is the potential for loss. Hebb and Mortsch (2007) in the report entitled 'The Mapping Vulnerability in the Upper Thames Watershed under a Changing Climate' define flood vulnerability as - "threat of exposure, capacity to suffer harm, degree to which different social groups are at risk (individual – susceptibility of person or structure to potential harm, biophysical – distribution of hazardous conditions arising from initiating events such as natural hazard or social".

The Intergovernmental Panel on Climate Change provides the following definition "degree which system is susceptible to or unable to cope with adverse effects of climate change including variability and extremes; function of character, magnitude, rate of variation of exposures, sensitivity and adaptive capacity" (in Hebb and ortsch, 2007). In this study, flood vulnerability has been defined as a combination of four types of distinctive vulnerabilities: physical, economic, infrastructural and social.

III.1.2 Flood hazard

Flood hazard is the threat to people and things they value. Hazard is a critical risk descriptor in flood analysis and is usually represented using flood lines. The present study used already available 100-yr and 250-yr flood line data in risk calculation (personal communication with the Upper Thames Conservation Authority). The flood

hazard maps for different postal code areas showing the flood lines for 100 and 250 years are shown in Appendix A.

III.1.3 Flood lines

The probability or likelihood of flooding is described as the chance that a location will flood in any one year. For example, 1.3% chance of flooding each year implies 1 in 75 chance of flooding at that location in any year. Exceedance probability for a design flood x is represented as $P[X \geq x] = 1 - F(x)$, and explained graphically in Figure 4. The return period (T_x) of design flood x is the reciprocal of exceedance probability, i.e., $1/P[X \geq x] = 1/[1 - F(x)]$. Flood line is the line joining the different spatial points in a watershed with the same return period. The floodlines are evaluated considering physical, hydraulic and hydrologic characteristics of a watershed. The present study utilizes 100-year flood line data for all postal code areas being considered and 250-year flood line data for all postal codes of London.

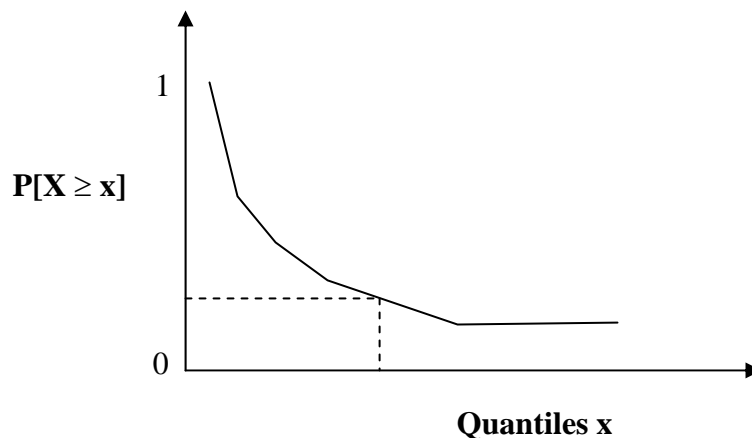


Figure 4. Graphical representation of flood exceedance probability with flood quantile values.

III.1.4 Flood exposure

Patterns of land use and soil type are considered as the most important characteristics of flood exposure for the case study of Upper Thames River watershed. Most commonly 'exposure' of a flooded area is classified in either the 'hazard' or

'vulnerability' category of risk descriptor. However, in this study exposure is considered as an individual component of risk and applied as a weight in risk assessment (Peck et al., 2007). The indices of flood vulnerability considered in the present study have no hydrological influence on river flow regime and flood response. It is found that land use change and soil permeability are two characteristics which display hydrologic response to flood flow (Sullivan et al., 2004). To differentiate these two characteristics from flood vulnerability indices, they are considered to be flood exposure, which indicate the susceptibility of a region to flood damage but has hydrologic influence on river flow and flood response. This study only estimates a value of exposure for those postal code areas which fall into the municipality of London. This is due to incomplete land use and soil data for the other postal code areas considered. An exposure value of 1 is considered for regions outside of London as data for land use and soil permeability are not available.

III.1.5 Flood risk

The 'Flood risk' is traditionally defined as the probability of a flood occurring in an area. In the present work, flood risk is defined in broader terms as:

$$\text{Flood Risk} = (\text{Hazard}) \times (\text{Vulnerability}) \times (\text{Exposure}) \quad (1)$$

III.2 Web-based flood information system

III.2.1 Model features

The Web-based Flood Information System is easy to navigate. The process starts by providing access to cities in the Upper Thames watershed. After selecting the city, typing in the first three digits of a postal code will direct the user to information about that postal code. The information that is displayed for all the users includes maps, numerical data, and an analysis tool. The analysis tool allows user to change the postal code for comparative analysis of land exposure, flood hazards and vulnerability. The

graphical maps show the flood hazards for each postal code. They provide the probability of a flood occurring ever 1:100 years and 1:250 years. The numerical vulnerability and exposure data is represented in a tabular form for each postal code.

An exhaustive knowledge of flood risk, vulnerability and exposure in different spatial locations is essential for developing an effective flood mitigation strategy for a watershed. In the present study, a flood risk-vulnerability analysis is performed. All four components of flood vulnerability (i.e., geophysical, economic, infrastructural and social) are evaluated individually in a Geographic Information System (GIS) environment.

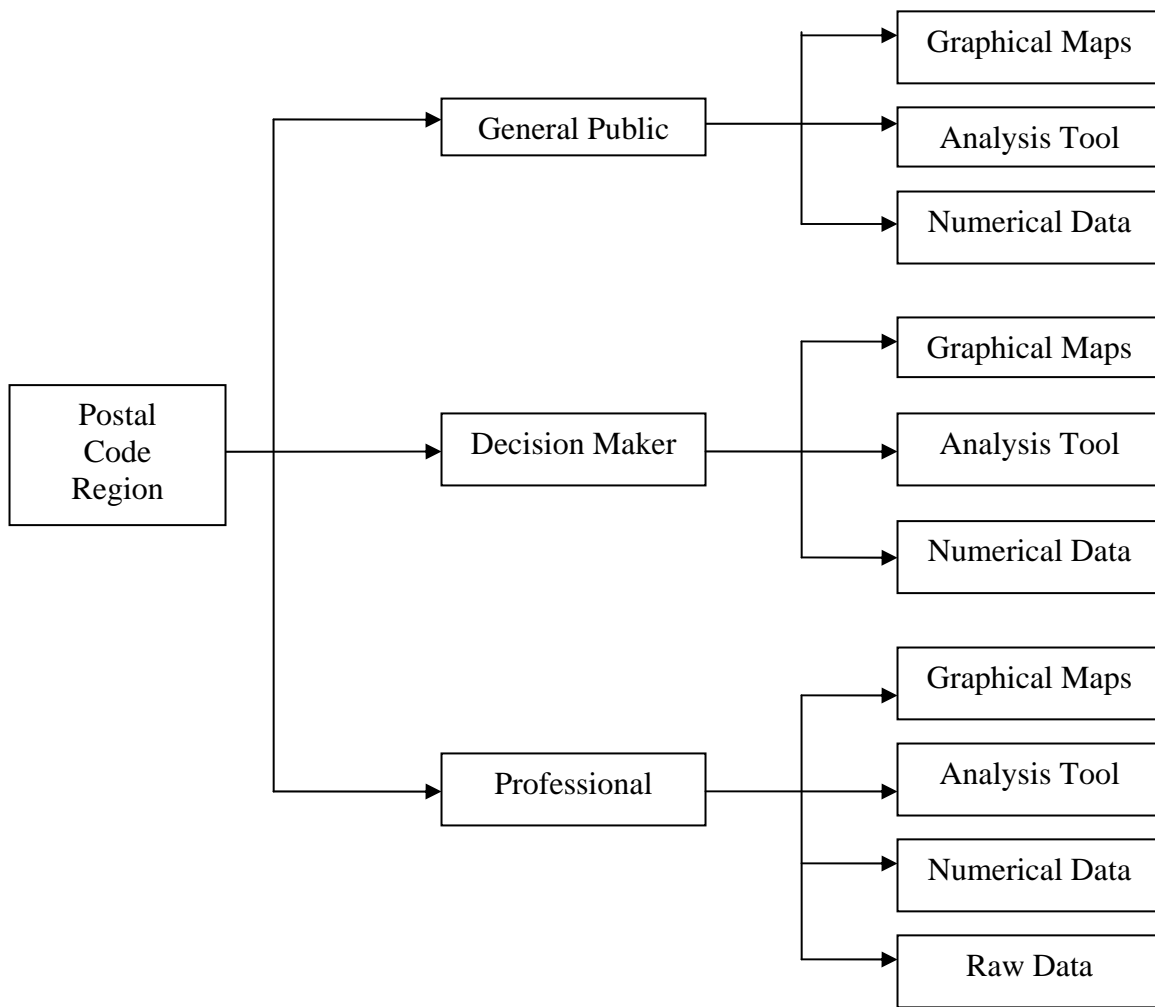


Figure 5. Organization of the Web-based flood Information System.

The proposed methodologies estimate the impact on infrastructure vulnerability due to inundation of essential service buildings, emergency service stations, and road bridges. The components of vulnerability are combined by averaging to determine the overall vulnerability. The patterns of land use and soil type are considered as two major components of flood exposure. The flood hazard maps, overall vulnerability and exposure are used to finally compute the flood risk at different locations of the watershed. The proposed methodologies are demonstrated on six major damage centers of Upper Thames River watershed, located in south-western Ontario of Canada to assess the flood risk. The details of the methodologies for risk-vulnerability assessments can be obtained from (Peck et al., 2007). The web-based information system represents in organized fashion the flood risk, vulnerability, exposures of different postal code regions and provides a differential access for users, i.e., general public, professionals and decision-makers. A user file is developed inside the web-based information system as an analysis tool, which evaluates the flood risk for a change in land use pattern. The organization of the web-based flood information system is shown in figure 5. The GIS is used as a tool for efficiently handling large amounts of spatial data, and Adobe Dreamweaver is used in the presentation of processed and raw data. The technical details of the web design software and GIS software are furnished in the following sections.

III.2.2 Technical details of web design software

The Adobe Dreamweaver Creative Sweet 3 software is used for creating the web-based flood information system. This software package is widely used for design, development, and maintenance of websites and applications.

III.2.3 Technical details of GIS software

Most of the maps in the web-based flood information system are created using ArcGIS program. ArcGIS is an integrated collection of GIS software products for building complete GIS applications. It enables users to deploy GIS functionality wherever it is needed—in desktops, servers, or custom applications; over the web; or in the field.

IV. RESULTS AND DISCUSSION

IV.1 Home page

The home page of flood information system is saved as the <home.html> file. The whole website is based off the Cascading Style Sheets (CSS) template provided in Adobe CS3.

The home page contains a basic title, description of the whole website, and a picture of the Upper Thames basin. Scrolling over the city and selecting it directs the user to that page. A screenshot of the home page is shown in figure 6.

Left side of the page contains the city menu.

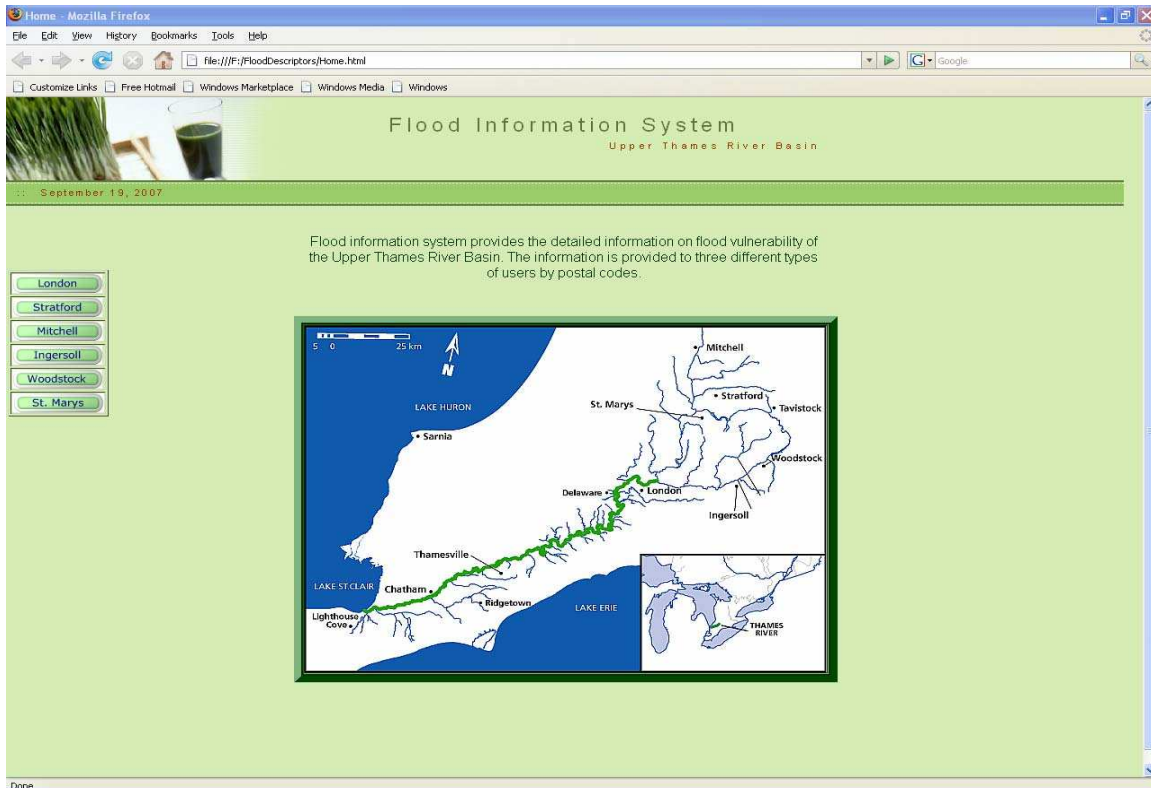


Figure 6. Home page of the web-based flood information system.

IV.2 City page

This page includes the name of the selected city and a picture of the city's postal code regions. An active field for selection of the postal code (by inserting the first three digits) is located on the left side. Selected three digits of the postal code activate the search engine that was created using search engine composer. The city pages are saved as <“city”.html> .

A template is used to keep the city pages consistent. It can be found in assets under the name PCIinput. A screenshot of the city page is shown in figure 7.

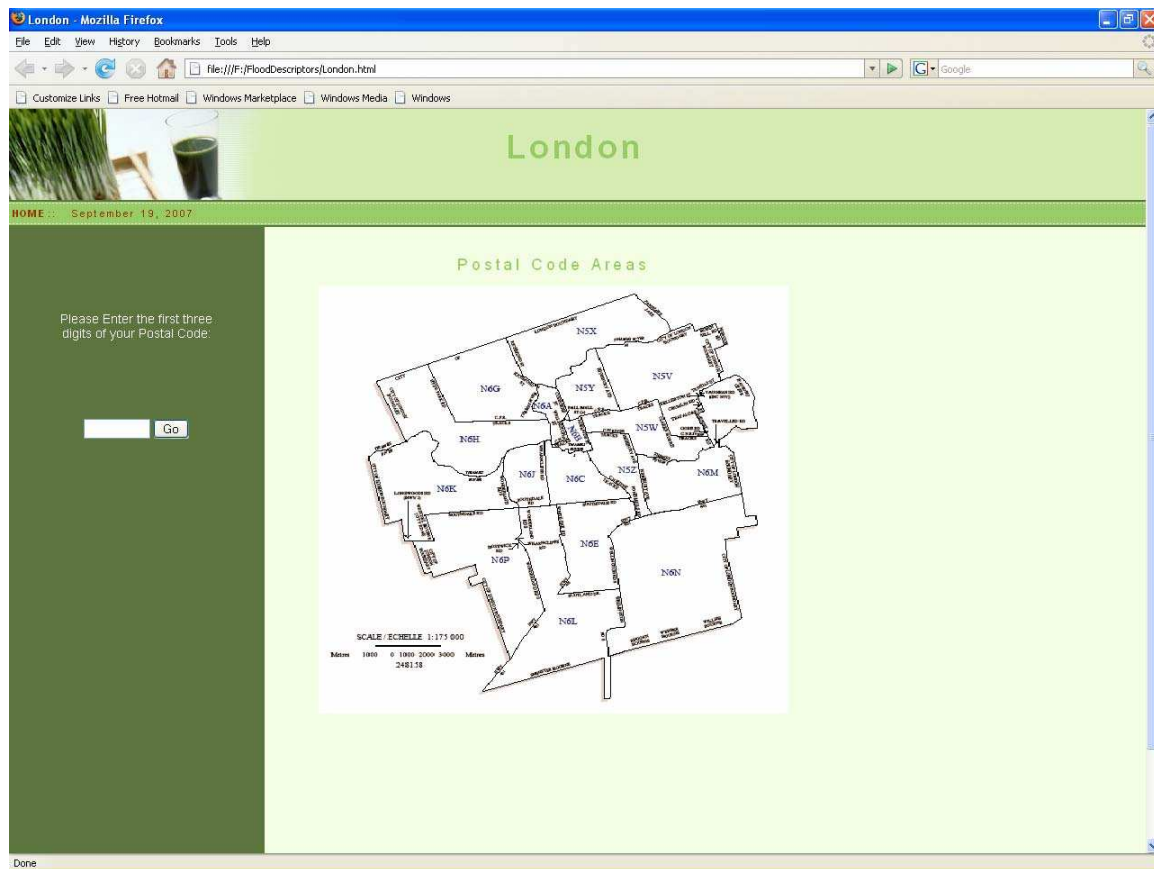


Figure 7. Flood information system web page for selection of the postal code.

IV.3 Search result

This page provides the search results for the selected postal code. The right side of this page provides links to the Facility for Intelligent Decision Support (FIDS), the University of Western Ontario, and Western Engineering. This page is saved as <searchresults.html>. A screenshot of the page containing the search results is shown in figure 8.

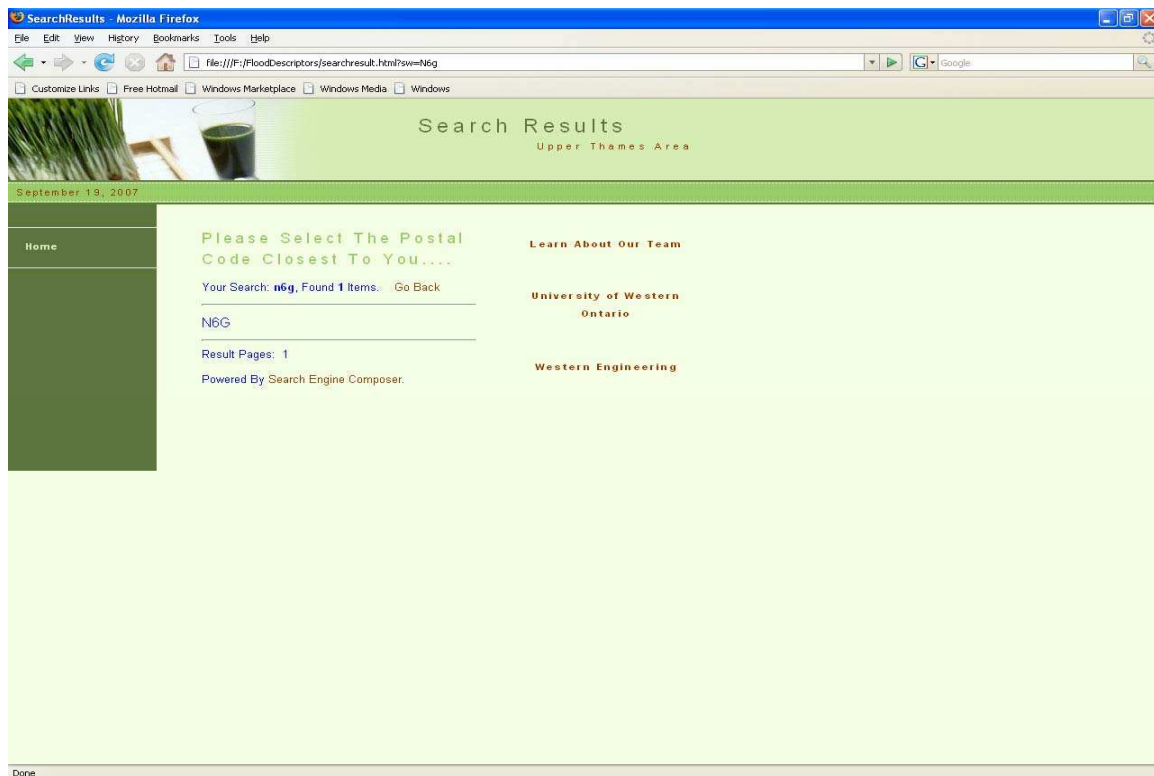


Figure 8. Search results for a postal code.

IV.4 Flood related information for a postal code area

The postal code regions web pages contain all the flood information available for each type of the user. On the left side the access to available information is provided for different user types. The postal code regions web pages are saved as < "FSA".html> (FSA standing for forward sortation areas).

To keep these pages consistent a template named PostalCode is used and stored in CS3 assets. A screenshot of this page is shown in figure 9.

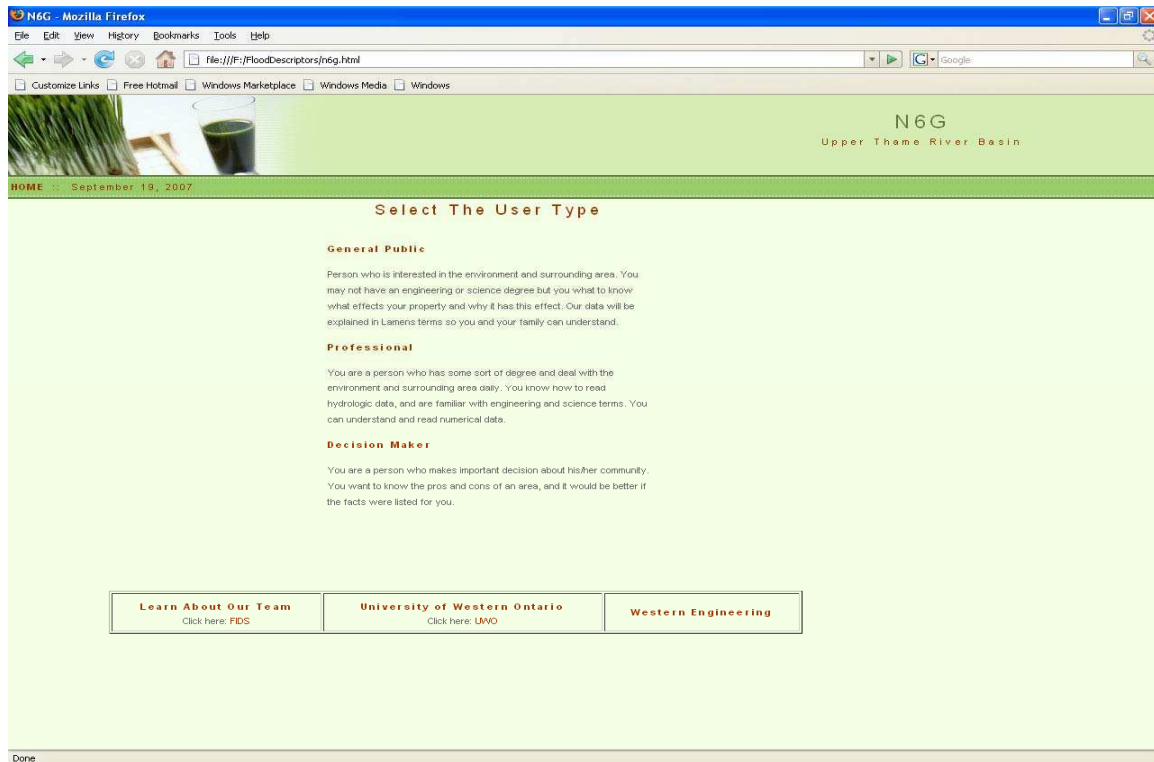


Figure 9. Flood information system web page for identification of the user.

IV.5 Information page

Information page is available for every postal code region. This is where the user can select to view or download information of interest. The jump down menus in the middle of the page can be used by the user for selecting the specific data of interest. These pages are saved as the files <n6agp.html>, <n6aproff.html>, and <n6adm.html> (gp means general public, proff means professional, and dm means decision maker). A screenshot of this page is shown in figure 10.

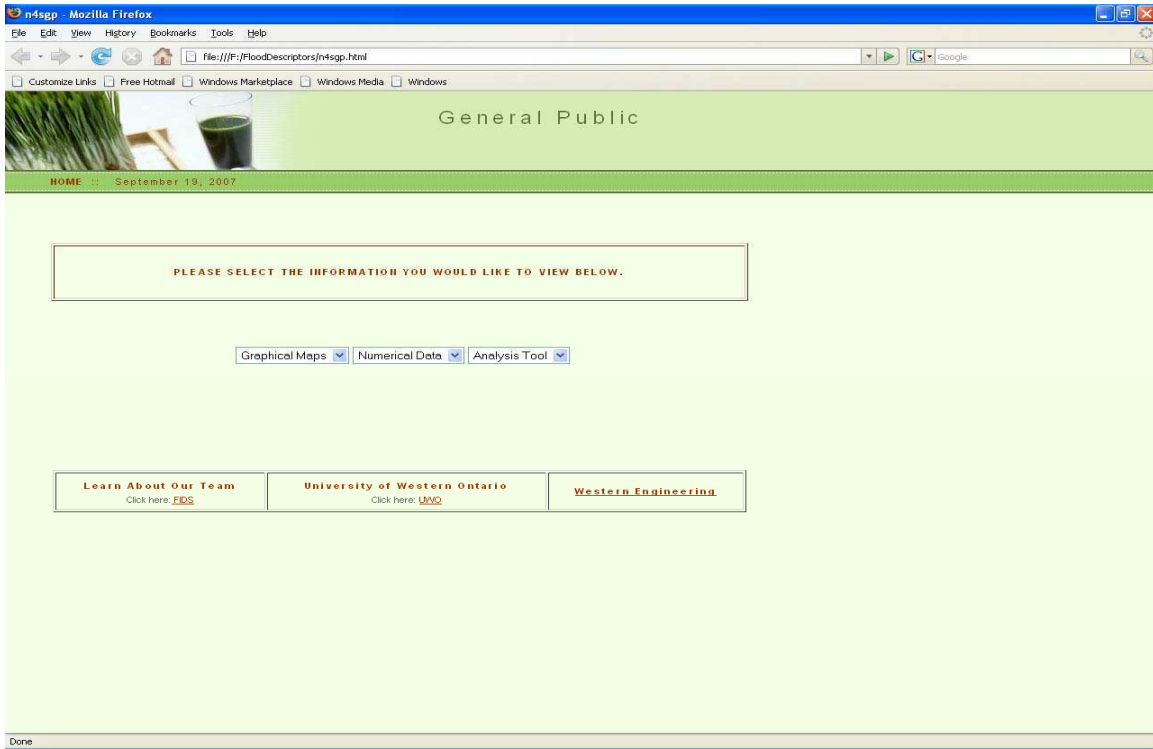


Figure 10. Flood information system web page for selection of information of interest.

V. SUMMARY AND CONCLUSIONS

The web-based flood information system prototype developed in this work provides an ample flood related information to various types of users, impact of important establishments of vulnerability. This web-based system has a potential to assist in flood emergency management and flood vulnerability assessment.

The flood information system covers a large area of the Upper Thames River basin with six major damage centres: London, St. Marys, Ingersoll, Mitchell, Stratford and Woodstock. Furthermore, the system provides an 'Analysis Tool' (Peck et al., 2007) for flood risk estimation as a consequence of change in the pattern of land use. The web-based system provides a support for three different types of users. A user's friendly webpage is designed to systematically search for and access all flood information.

The web-based system has a few limitations. In the present flood information system all the components of exposure and vulnerability are not considered due to unavailability of data. The assignment of Degree of Importance (DI) for calculation of impact of important service buildings, emergency service stations and road bridges across the river on vulnerability is dependent on perspective of decision-makers or flood planner, which introduces some uncertainty due to vagueness or imprecision in the model (Peck et al., 2007). The same limitation is present in flood exposure calculations. In the present system only two flood lines are available, e.g., 100- and 250-years flood lines, which seriously limit the calculation of flood risk. Therefore, the current version of the system does not provide any representative value of flood hazard or the value of exceedance probability for a postal code.

Finally, the web-based flood information system offers some benefits for future development. The impact of climate change is not considered in the current version of the system. The hazard maps or the position of flood lines will change if the climate change impacts are taken into consideration (Prodanovic and Simonovic, 2006). The values of flood risk for different postal codes may be easily updated to include the

impact of climate change. No hydrologic calculation is performed in the present study to find out current position of flood lines. A sophisticated hydrologic modeling may be implemented for finding out the current position of flood lines and result in more accurate calculation of flood risk. As well, the uncertainty due to imprecision in the assignment of Degree of Importance (DI) may be addressed in the flood risk calculation by the use of fuzzy set theory (Zadeh, 1965).

REFERENCES

- [1] Brown, James D., and Damery, Sarah L. (2002), "Managing flood risk in the UK: towards an integration of social and technical perspectives", *Managing Flood Risk in the UK*, 412-426.
- [2] Hebb, Andrea and Mortsch, Linda (2007), "Floods: Mapping Vulnerability in the Upper Thames Watershed under a Changing Climate", *Project Report. Project Report XI*, University of Waterloo, 1-53.
- [3] Helsten, M., and Davidge, D. (2005), 'Flood Damage Estimation in the Upper Thames River Watershed CFCAS project: Assessment of Water Resources Risk and Vulnerability to Changing Climatic Conditions' , *Project Report VII*, Upper Thames River Conservation Authority, 1-46.
- [4] Holz, K.P., Hildebrant, G., and Weber, L. (2006), 'Concept for a Web-based Information System for Flood Management', *Natural Hazards*, Springer, 38, 121-140.
- [5] Peck, A., Karmakar, S., and Simonovic, S.P. (2007). *Physical, Economical, Infrastructural and Social Flood Risk - Vulnerability Analyses in GIS*. Water Resources Research Report no. 057, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada. ISBN: (Print) 978-0-7714-2662-9; (Online) 978-0-7714-2663-6.
- [6] Prodanovic, P., and Simonovic, S.P. (2006). *Inverse Flood Risk Modelling of The Upper Thames River Basin*. Water Resources Research Report no. 052, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 163 pages. ISBN: (print) 978-0-7714-2634-6; (online) 978-0-7714-2635-3.

- [7] Sullivan, A., Ternan, J.L., and Williams, A.G. (2004), "Land use change and hydrological response in the Camel catchment, Cornwall", *Applied Geography*, Elsevier, 24, 119-137.

- [8] (2006), 'Natural Disaster Hotspots: Case Studies', *Disaster Risk Management Series No.6*, The World Bank, Washington D.C.

- [9] UTRCA (2001), "The Forks: Watershed Report Card"

- [10] UTRCA (2001), "Middle Thames: Watershed Report Card"

- [11] UTRCA (2001), "South Thames: Watershed Report Card"

- [12] UTRCA (2001), "North Woodstock: Watershed Report Card"

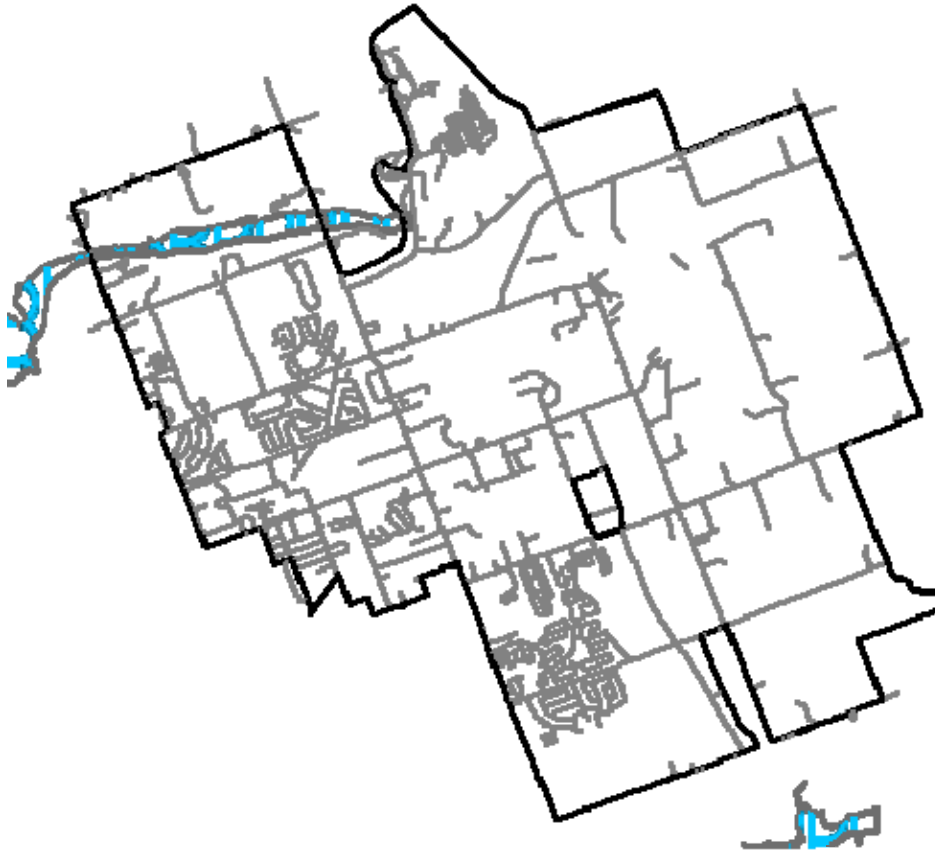
- [13] Xiang-Yang Lia, K.W. Chauh, Chun-Tian Chenga, Y.S. Lib. (2005), 'A Web-based flood forecasting system for Shuangpai region', *Advances in Engineering Software*, Elsevier, 37, 146–158.

- [14] Zadeh, 1965 Zadeh, L. (1965), 'Fuzzy Sets', *Information and Control*, 8, 338-353.

APPENDIX A. FLOOD HAZARD MAPS

The flood hazard maps for different postal code areas showing the flood lines for 100 and 250 years are shown in this appendix. The 100-year flood lines are available only for London damage center.

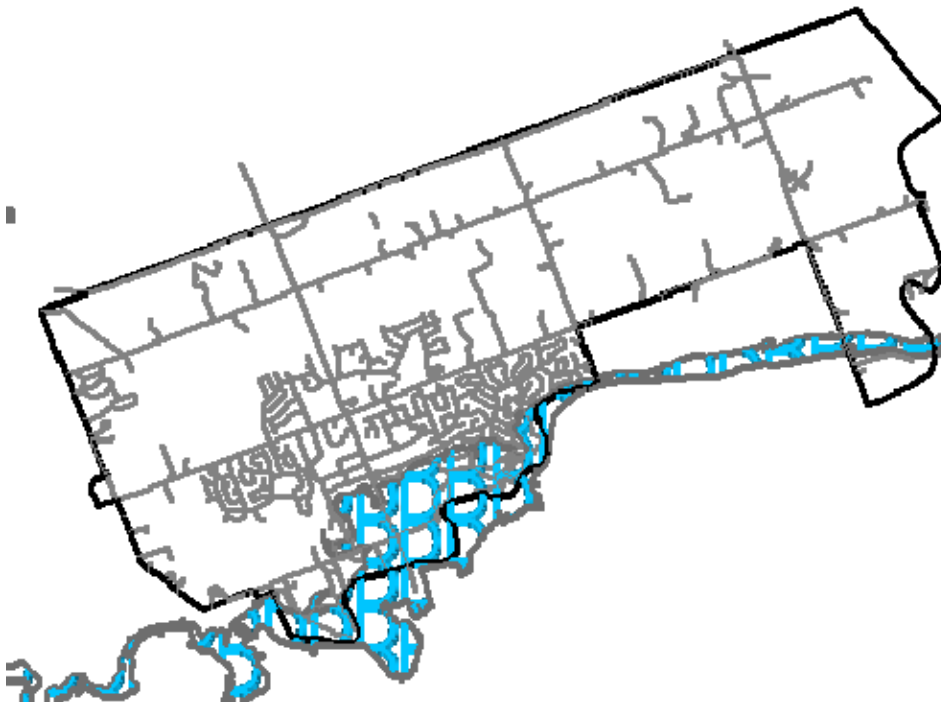
(a) 100-yr flood lines (available only for London)



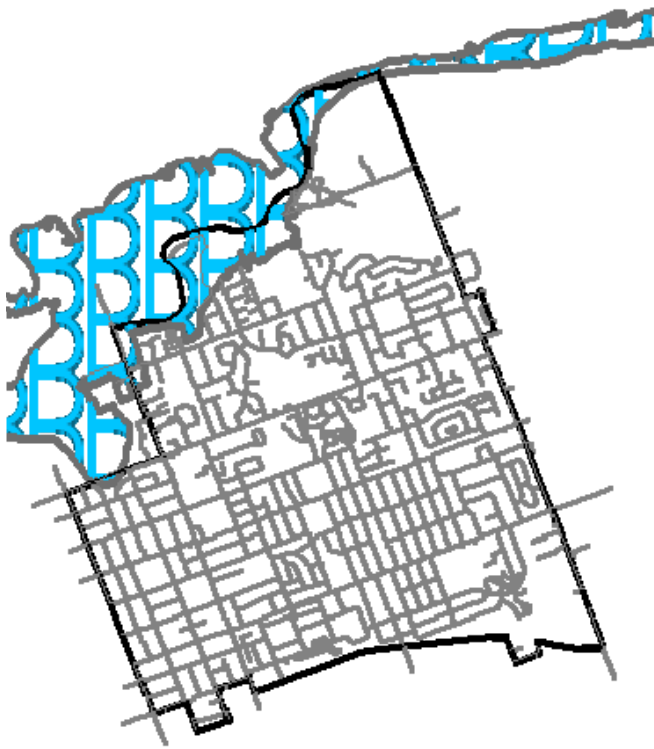
Postal Code - N5V



Postal Code - N5W



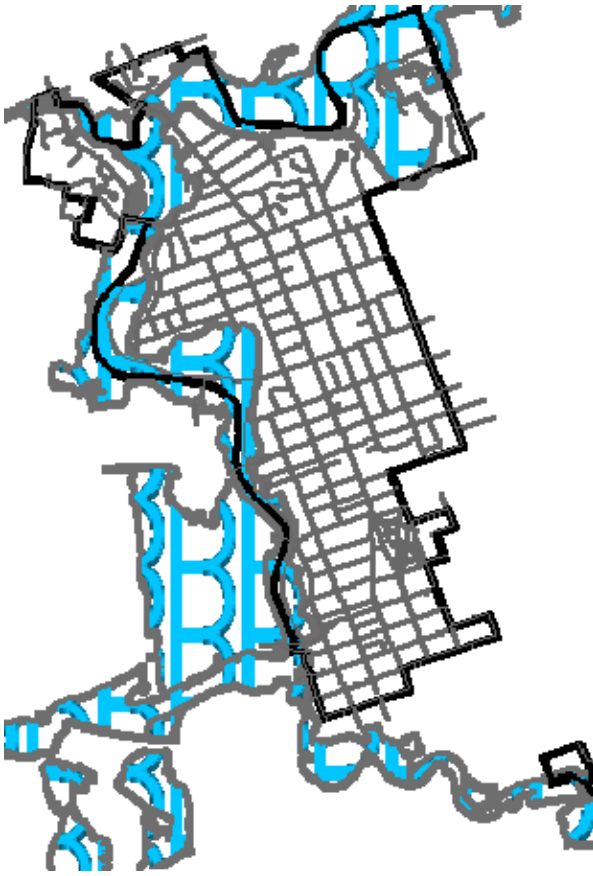
Postal Code - N5X



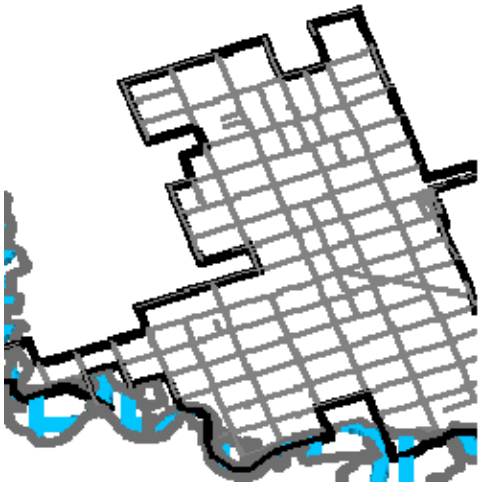
Postal Code - N5Y



Postal Code - N5Z



Postal Code - N6A



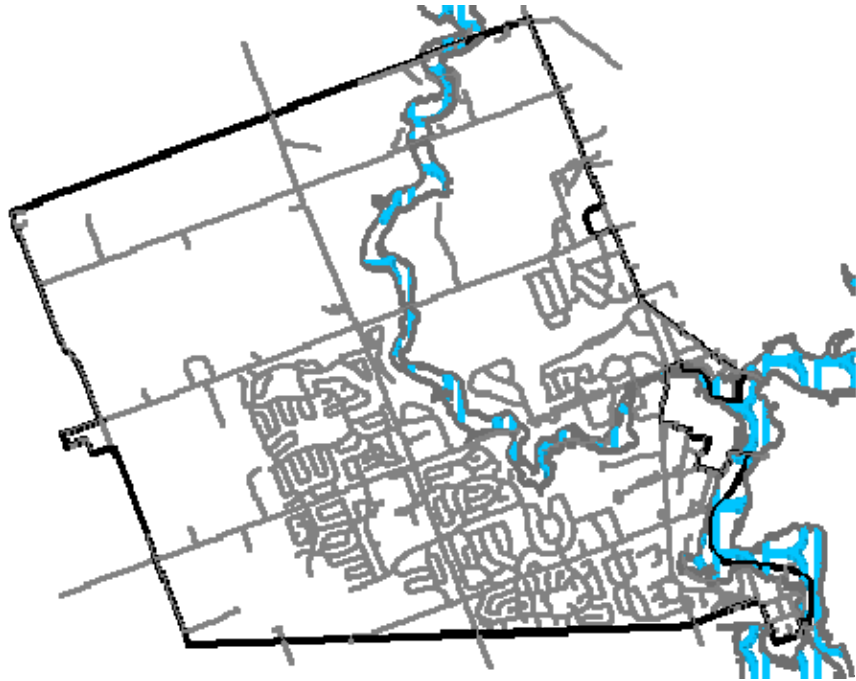
Postal Code - N6B



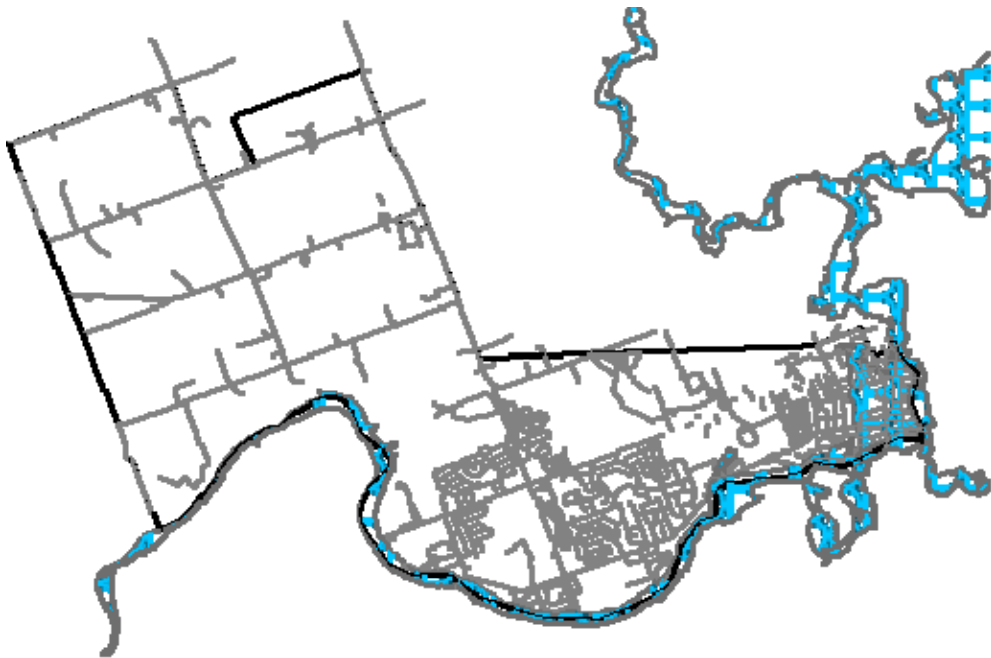
Postal Code - N6C



Postal Code - N6E



Postal Code - N6G



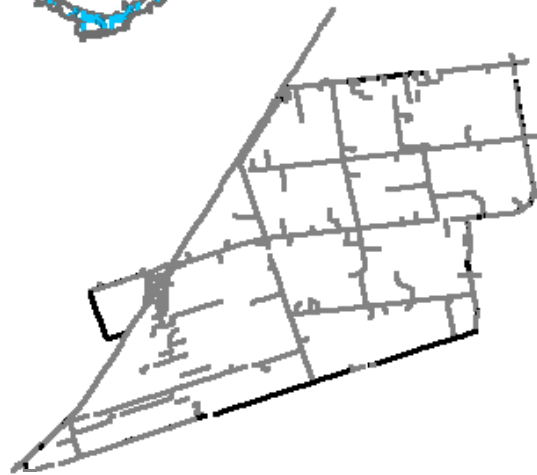
Postal Code - N6H



Postal Code - N6J



Postal Code - N6K



Postal Code - N6L



Postal Code - N6M

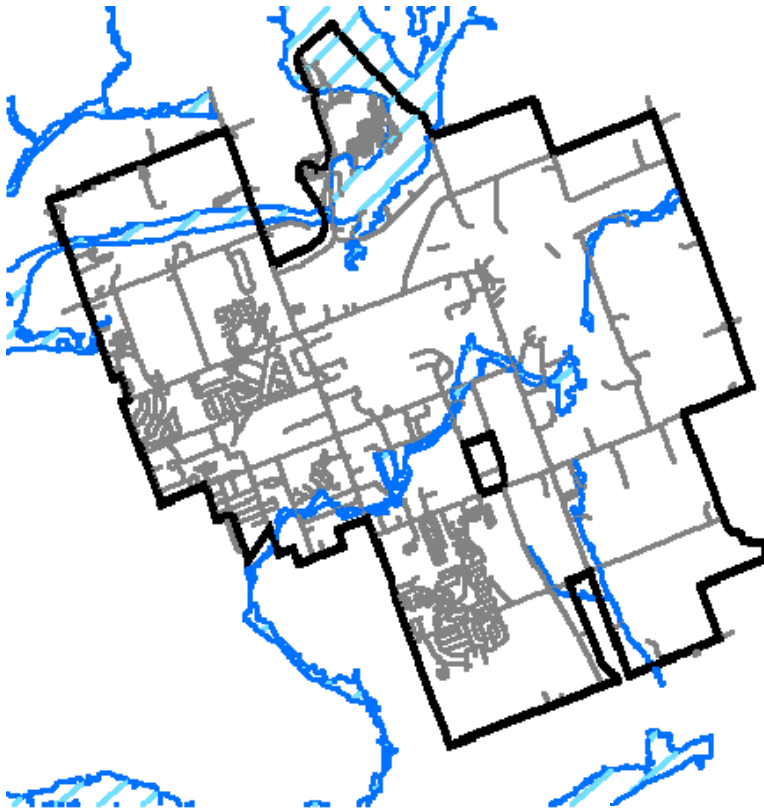


Postal Code - N6N



Postal Code - N6P

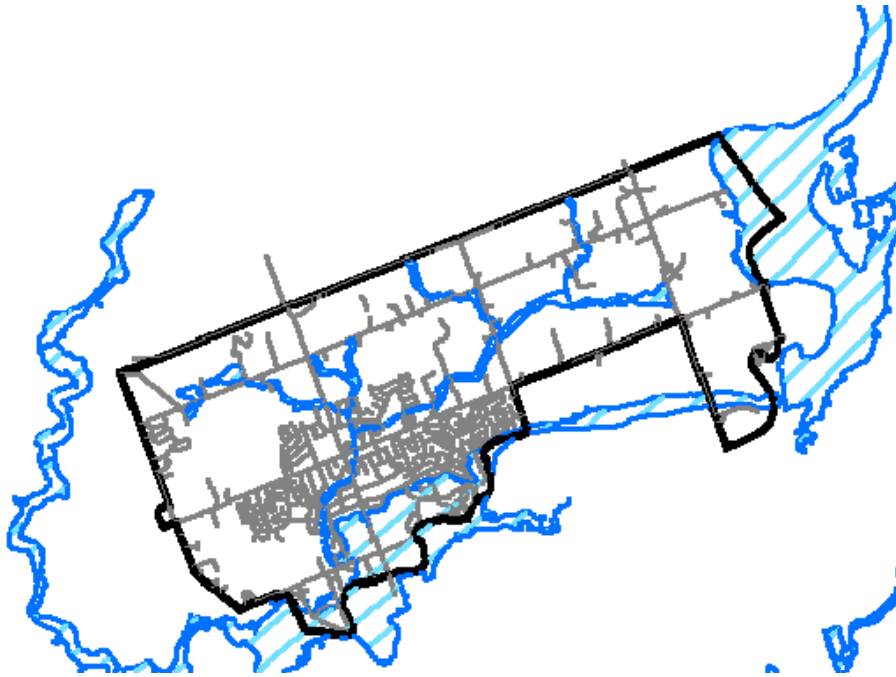
(b) 250-yr flood lines



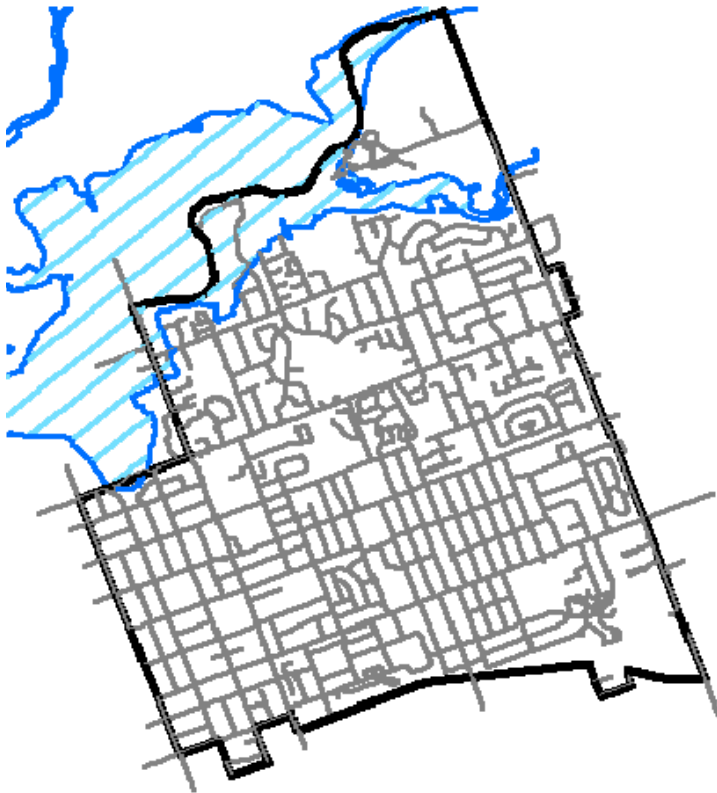
Postal Code - N5V



Postal Code - N5W



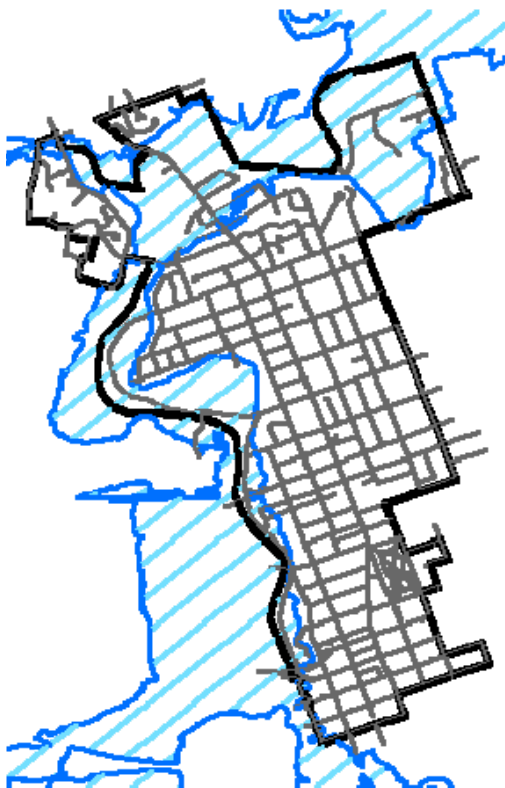
Postal Code - N5X



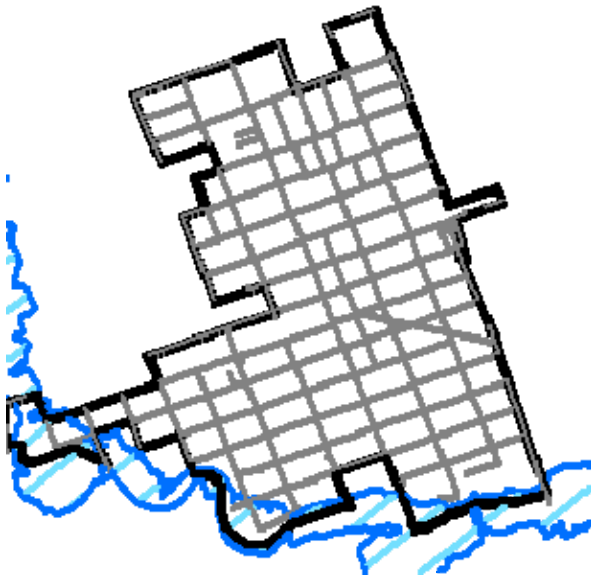
Postal Code - N5Y



Postal Code - N5Z



Postal Code - N6A



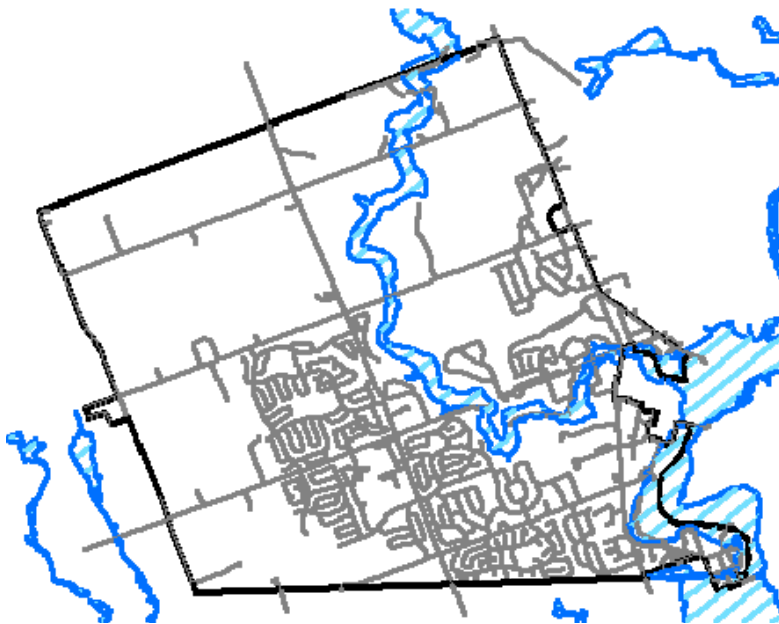
Postal Code - N6B



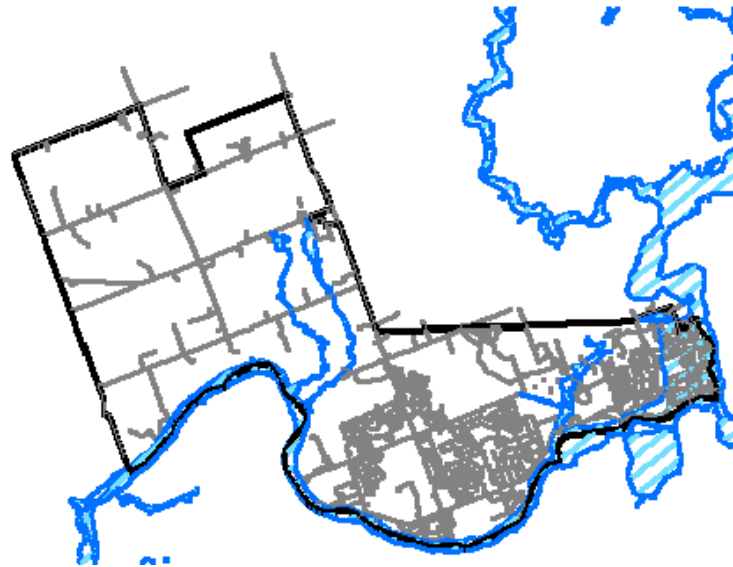
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Postal Code - N6E



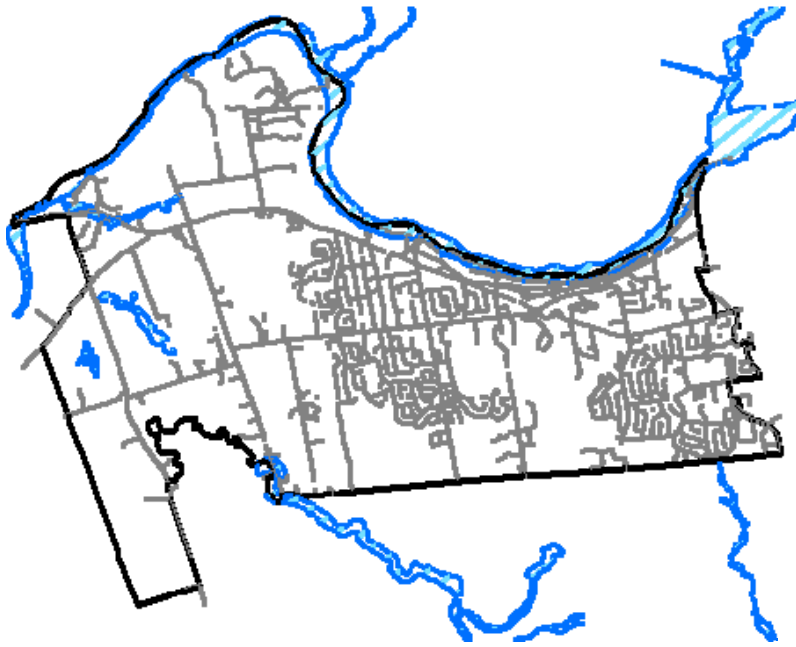
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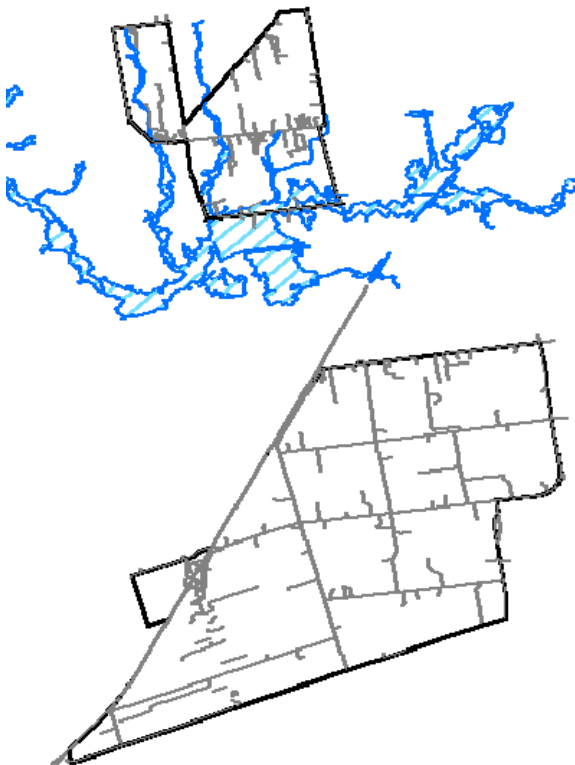
Postal Code - N6H



Postal Code - N6J



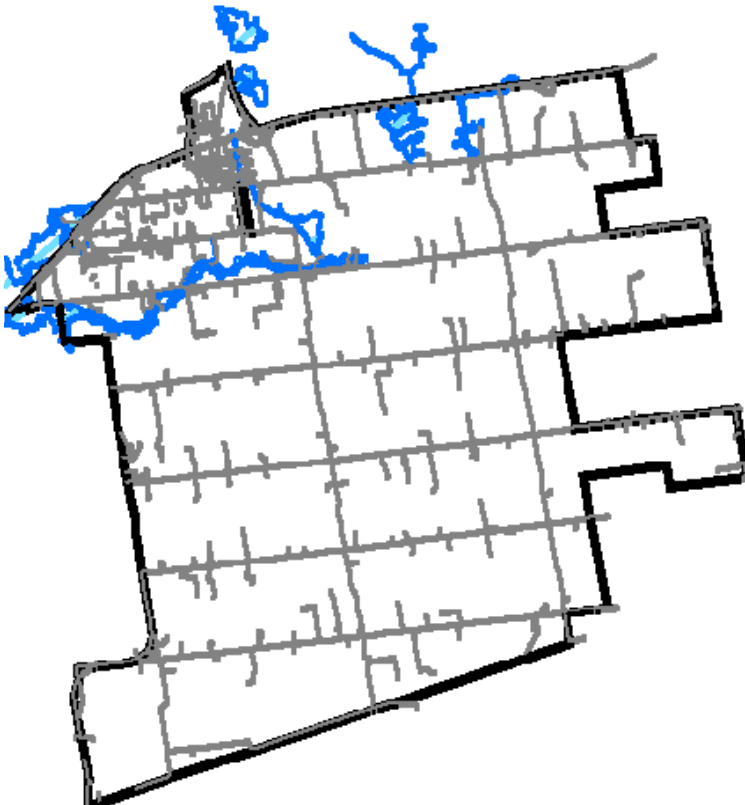
Postal Code - N6K



Postal Code - N6L



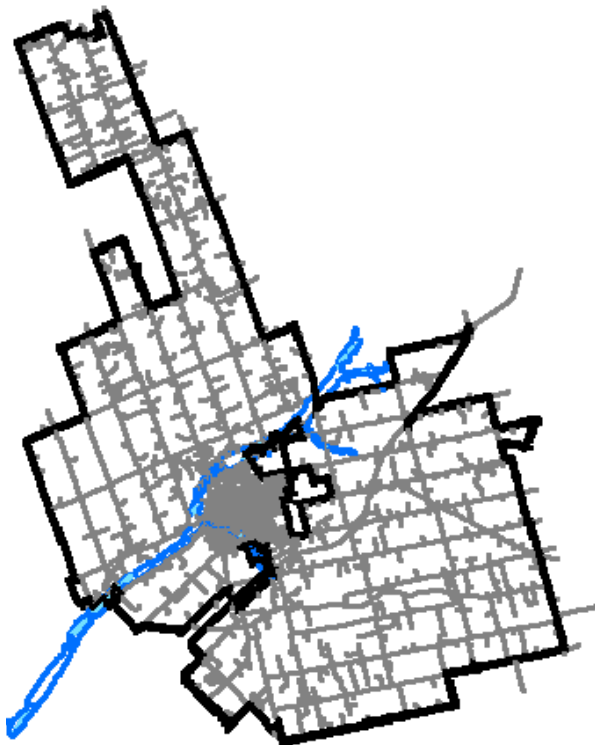
Postal Code - N6M



Postal Code - N6N



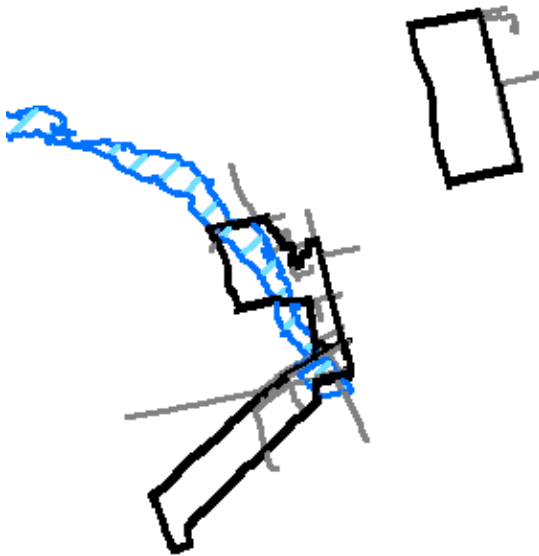
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Postal Code - N4S



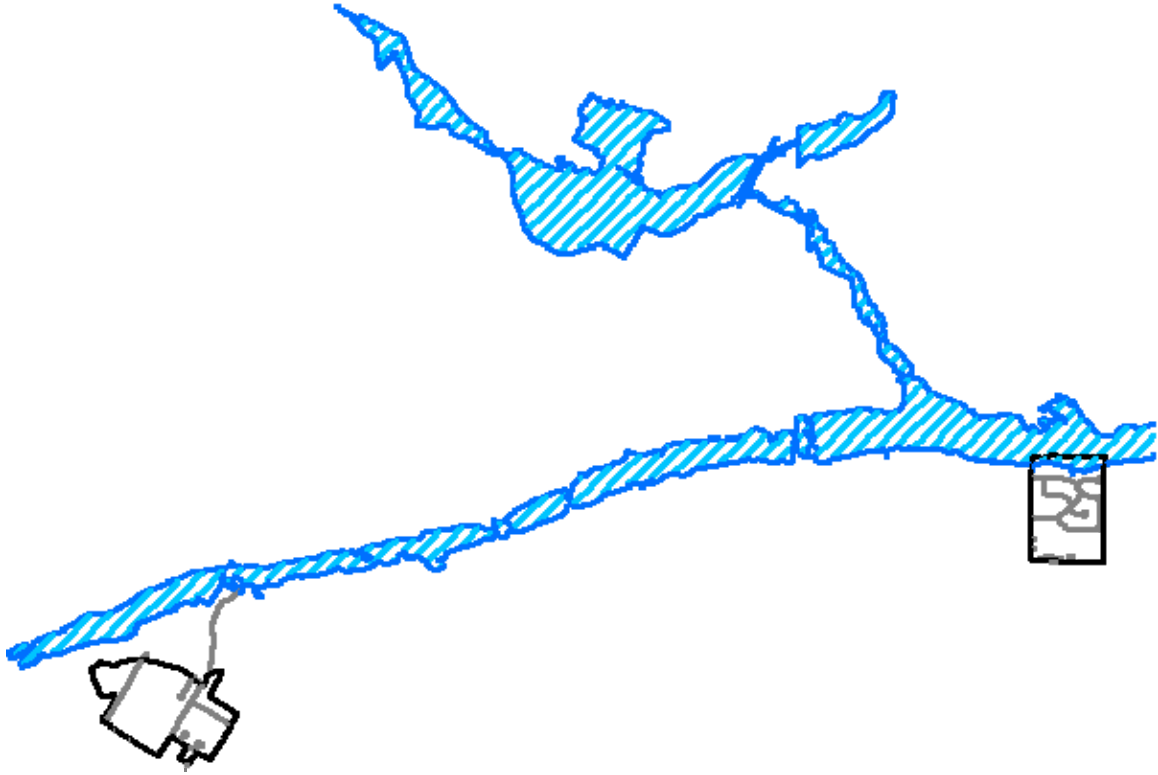
Postal Code - N4T



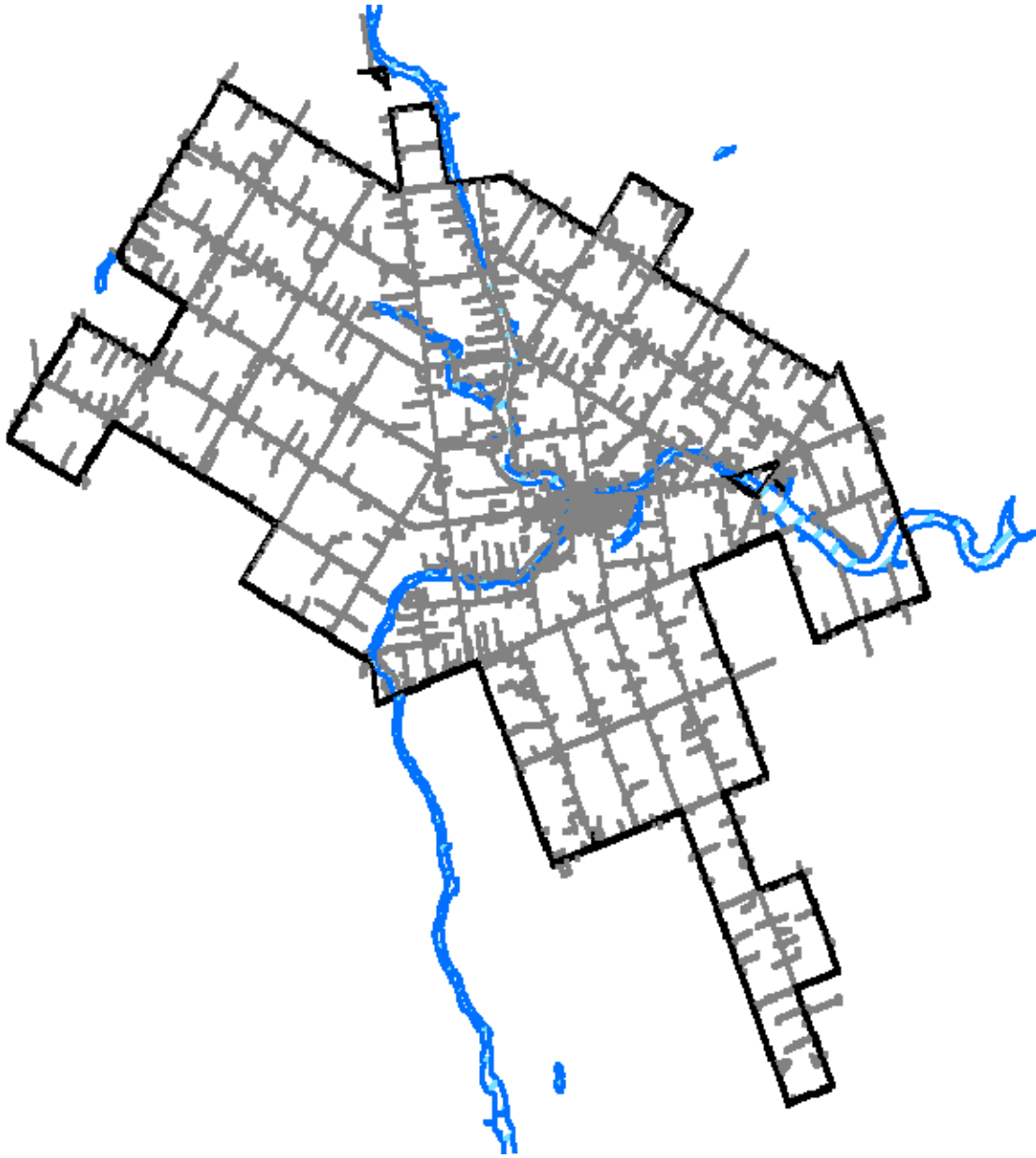
Postal Code - N4V



Postal Code - N5A



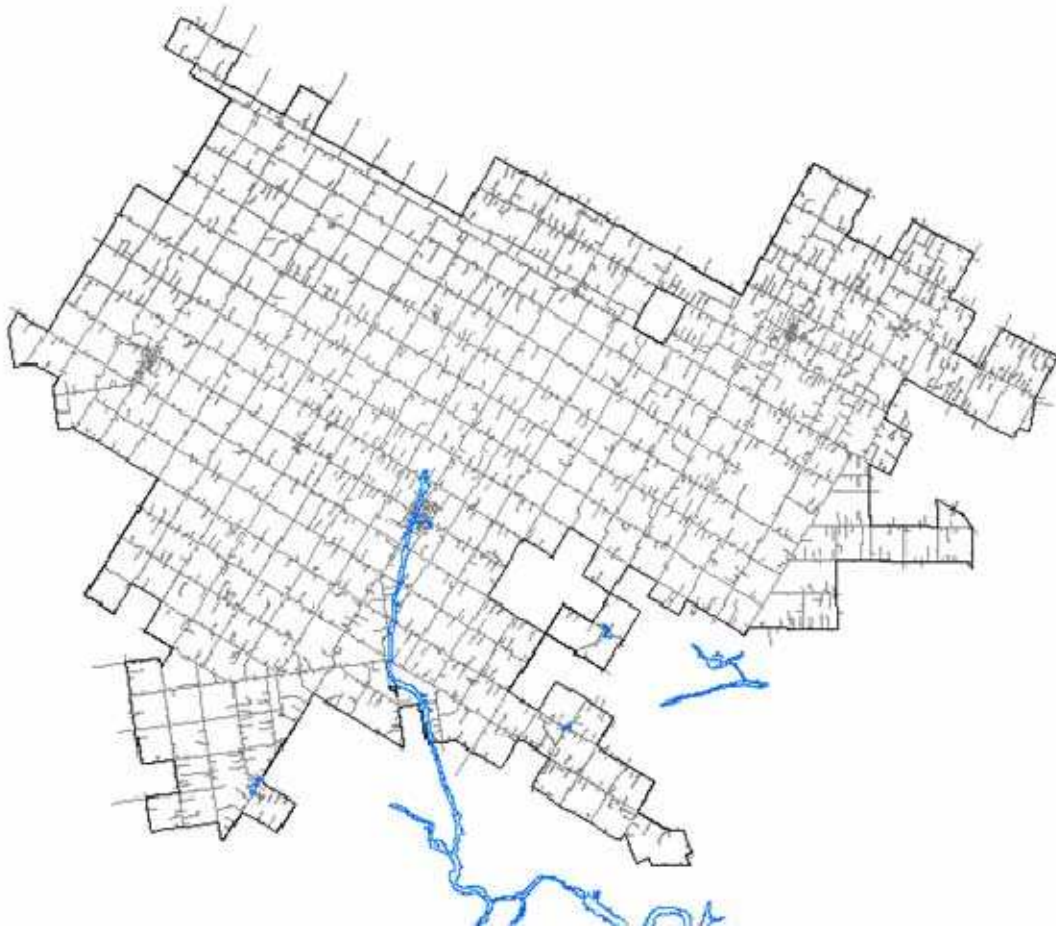
Postal Code - N4Z



Postal Code - N4X



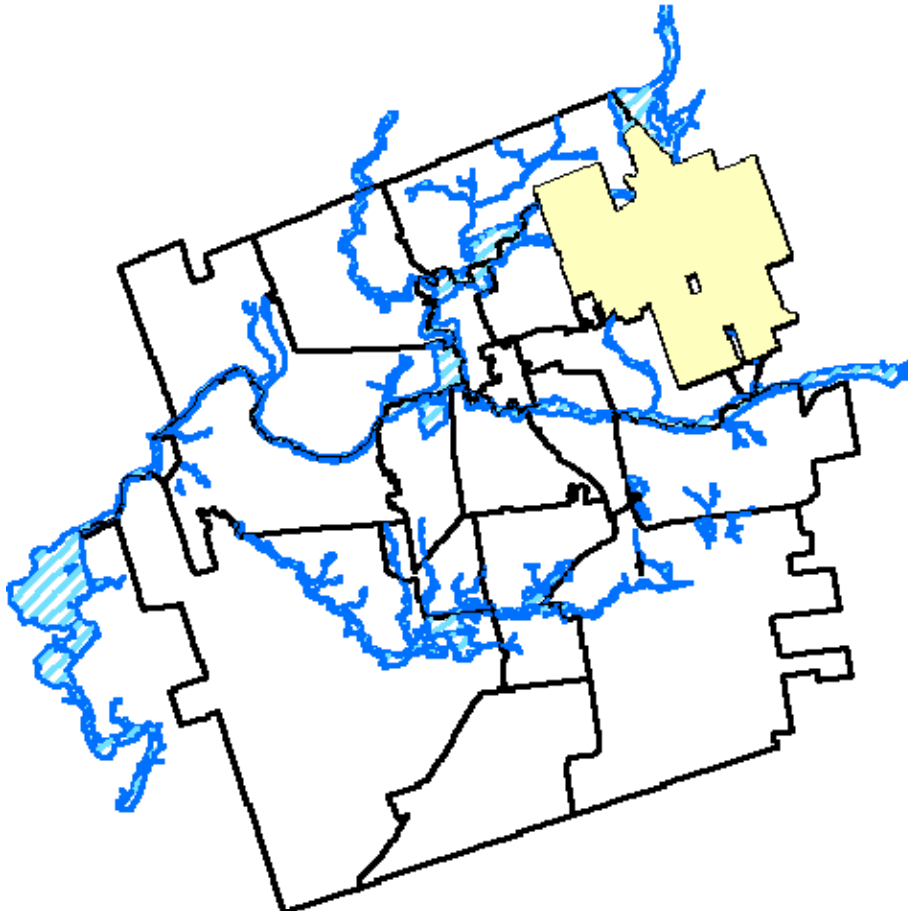
Postal Code - N5C



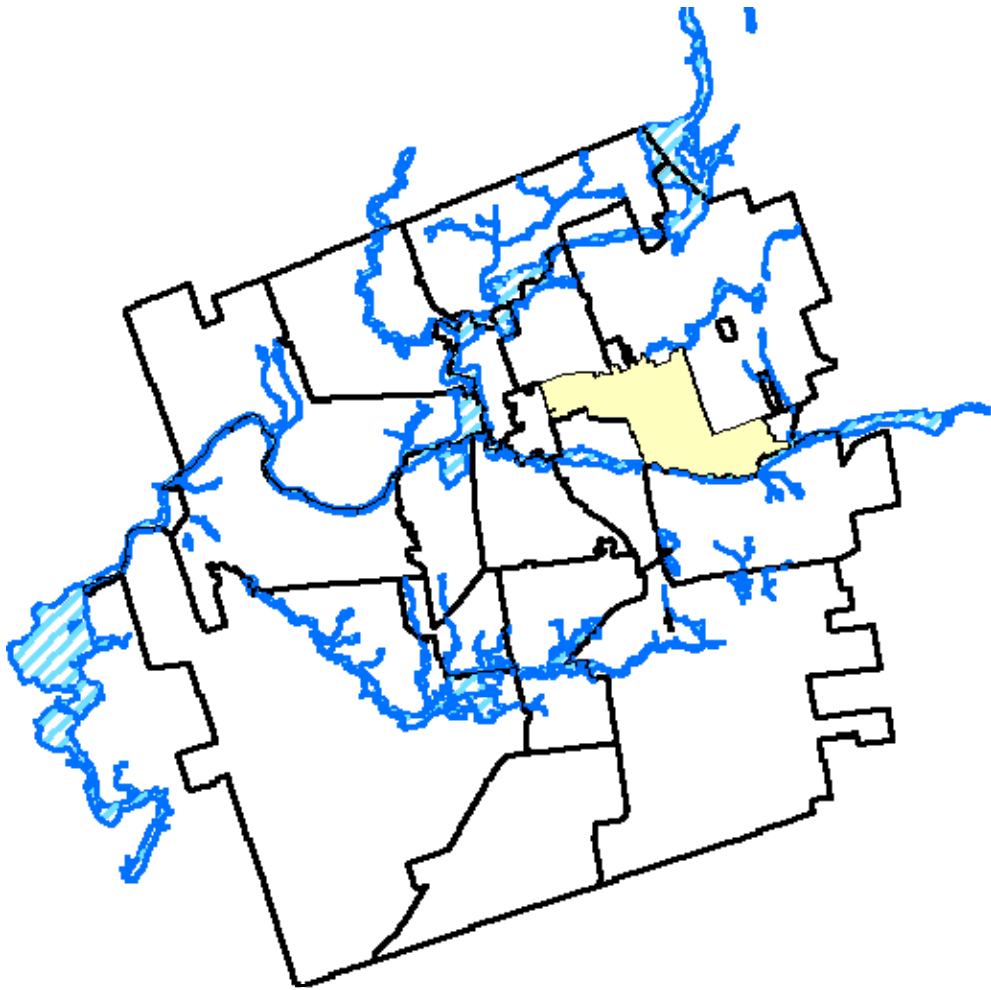
Postal Code - NOK

APPENDIX B. POSTAL REGION OF INTEREST

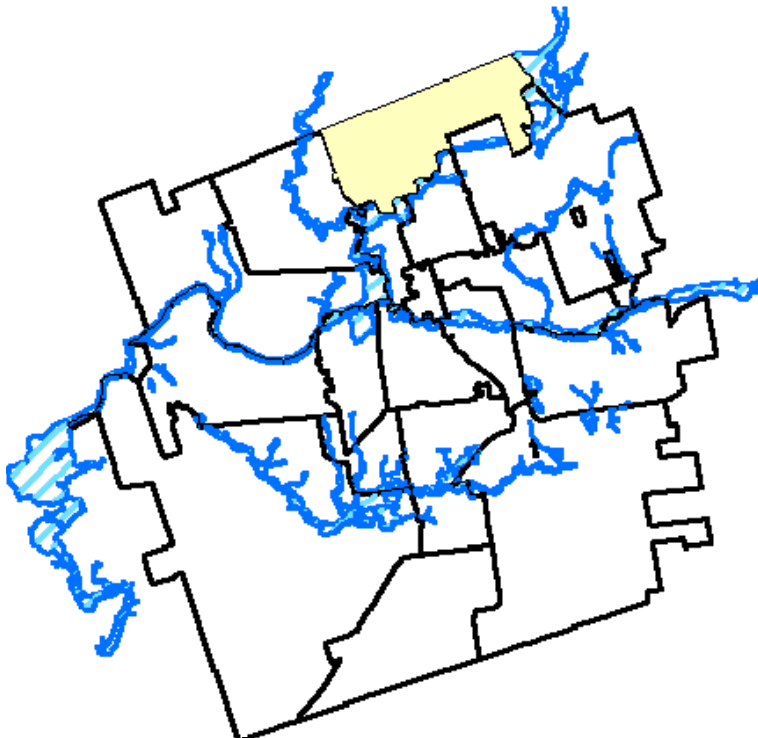
This appendix represent the maps indicating the location of postal codes in a damage center. The postal code of interest is indicated in yellow shades. The Thames River is also shown in the figures.



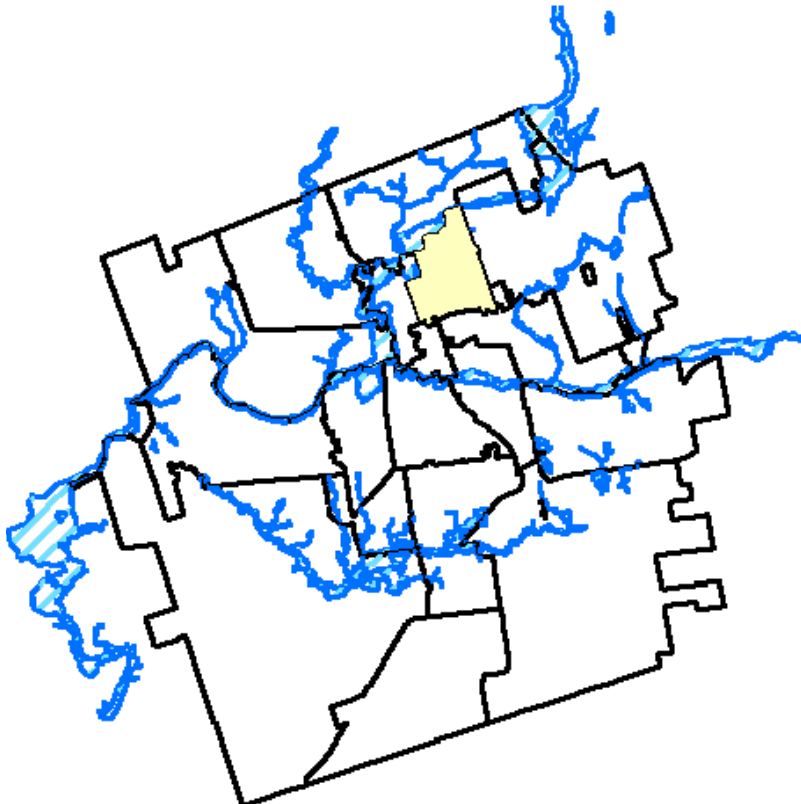
Postal Code - N5V



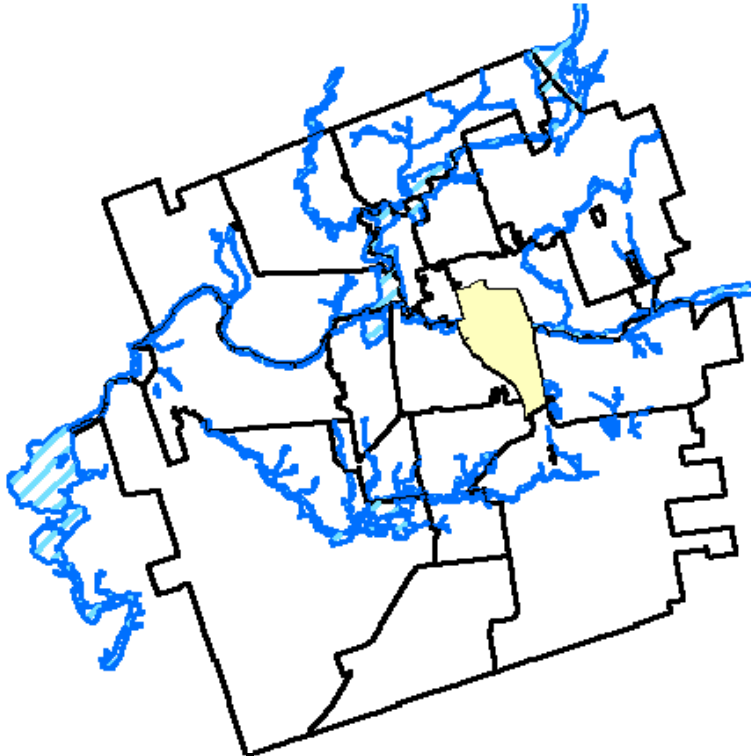
Postal Code - N5W



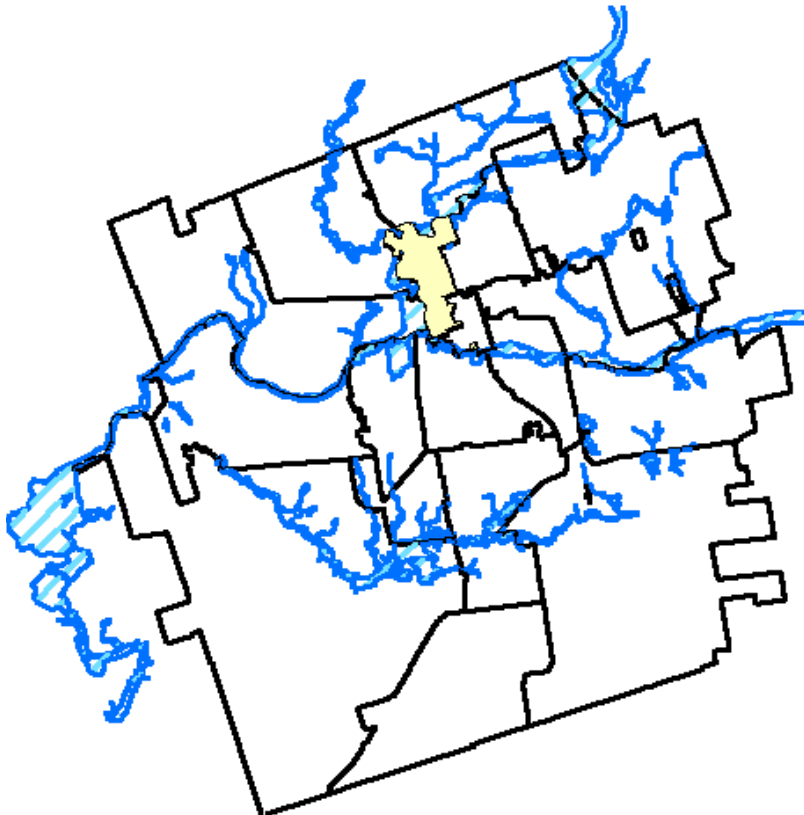
Postal Code - N5X



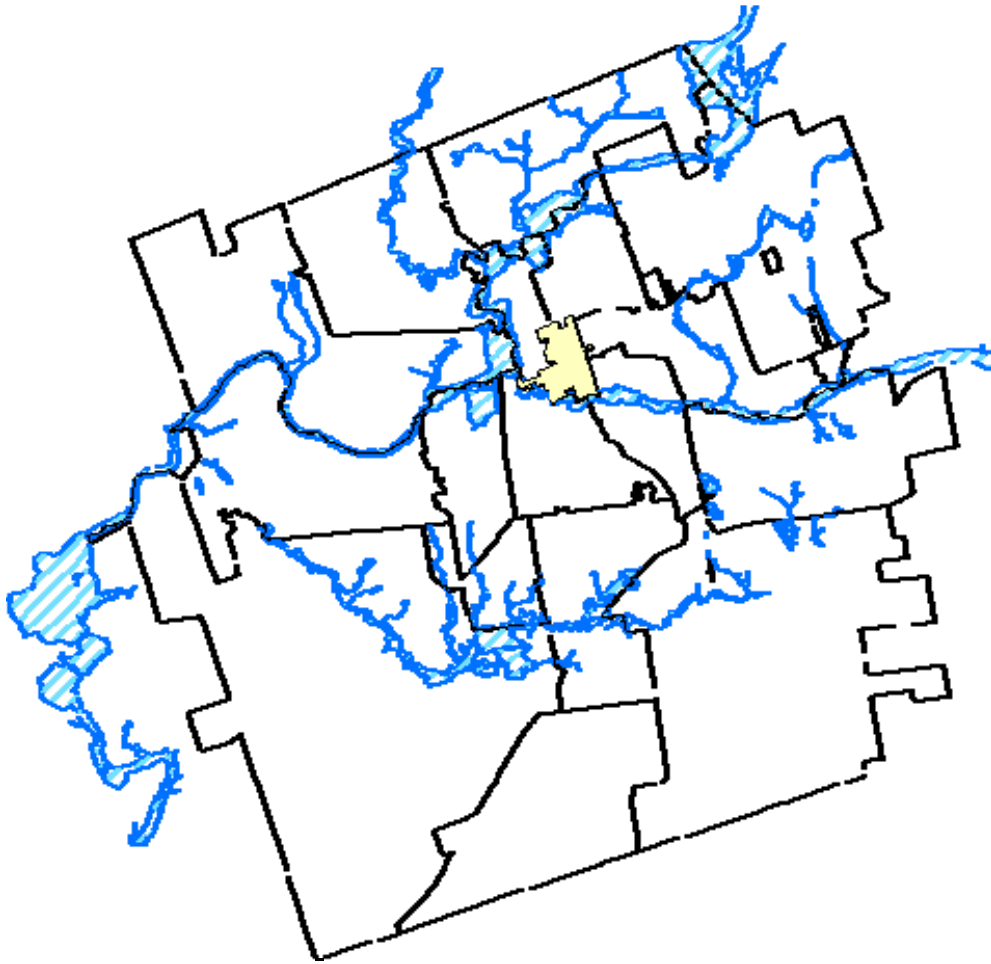
Postal Code - N5Y



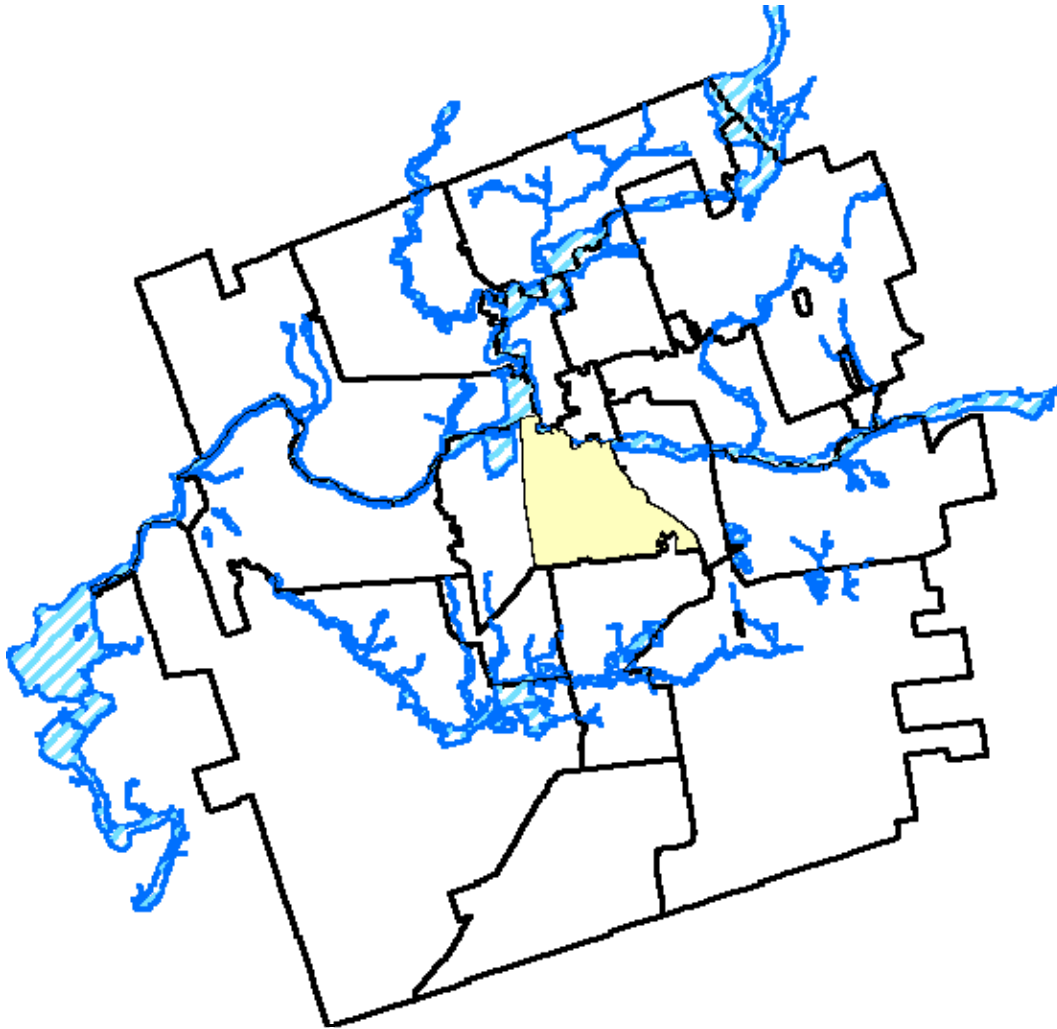
Postal Code - N5Z



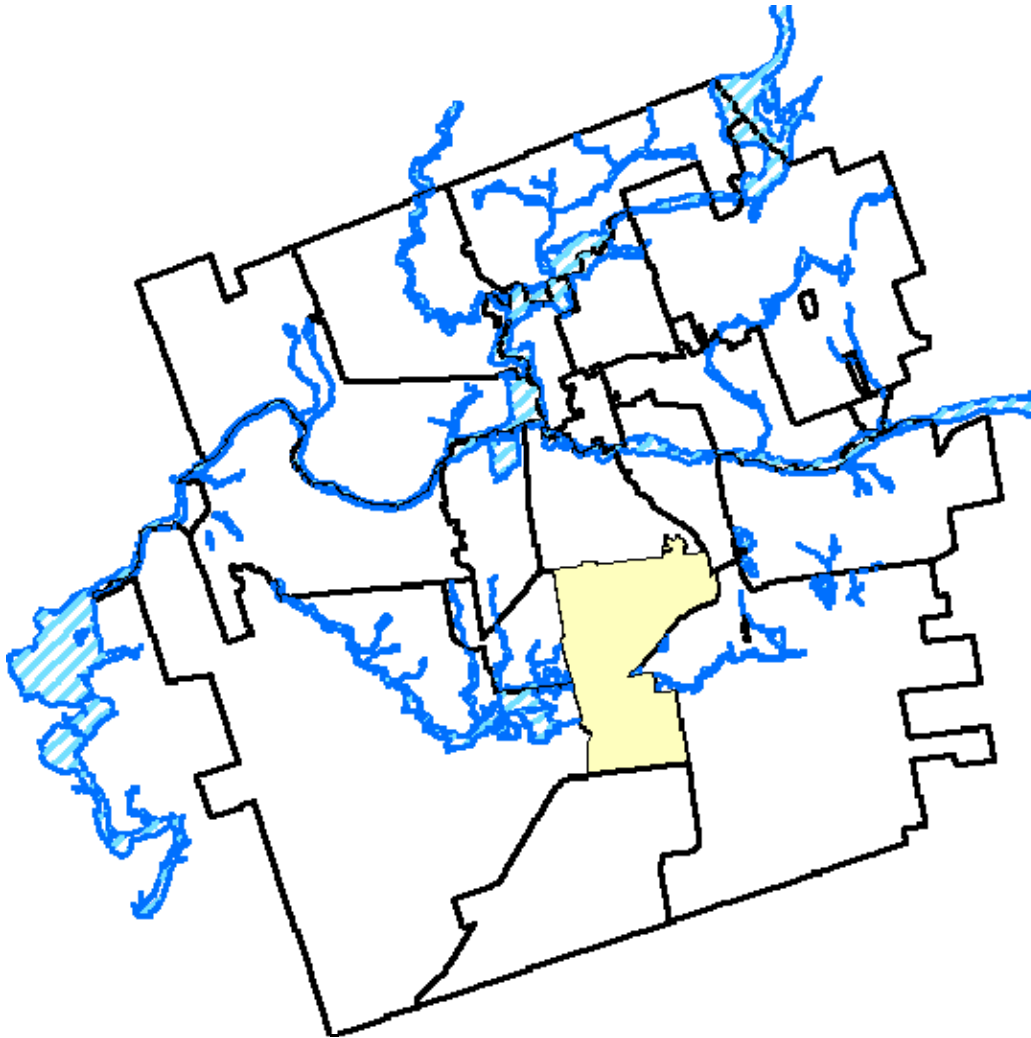
Postal Code - N6A



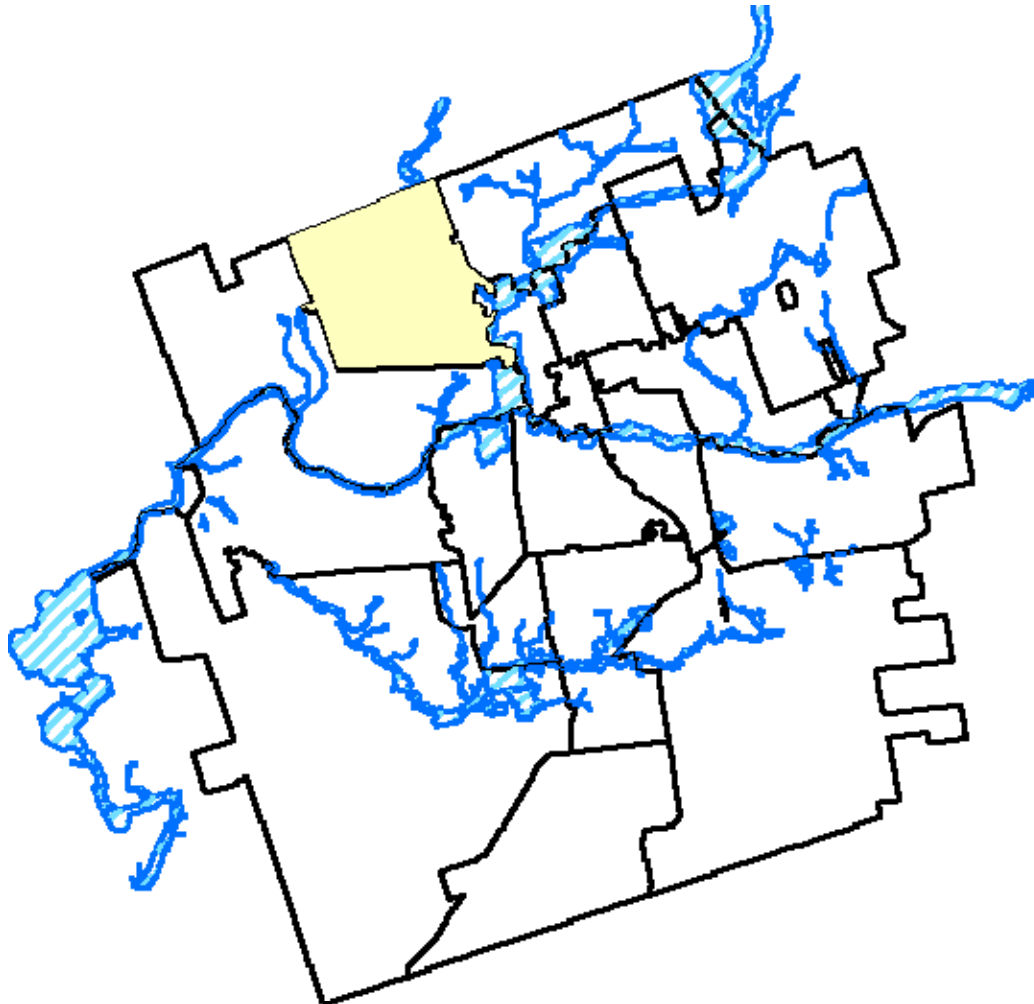
Postal Code - N6B



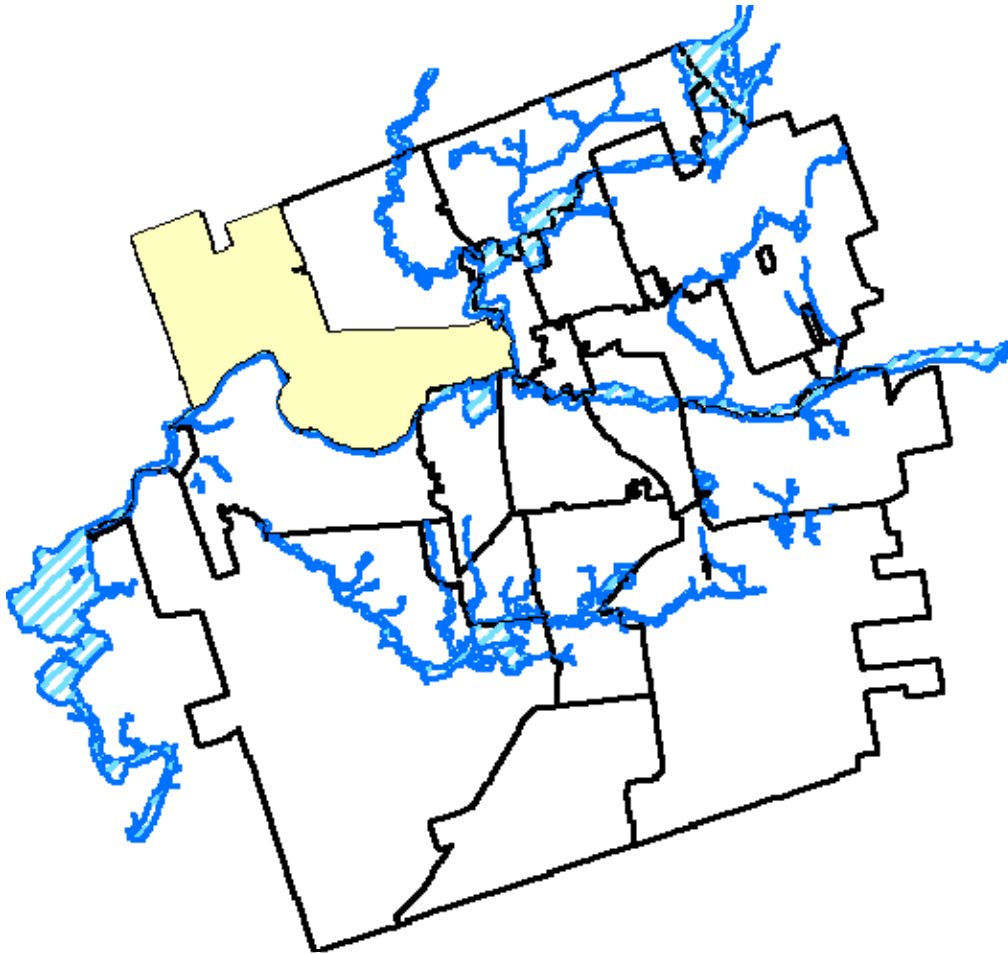
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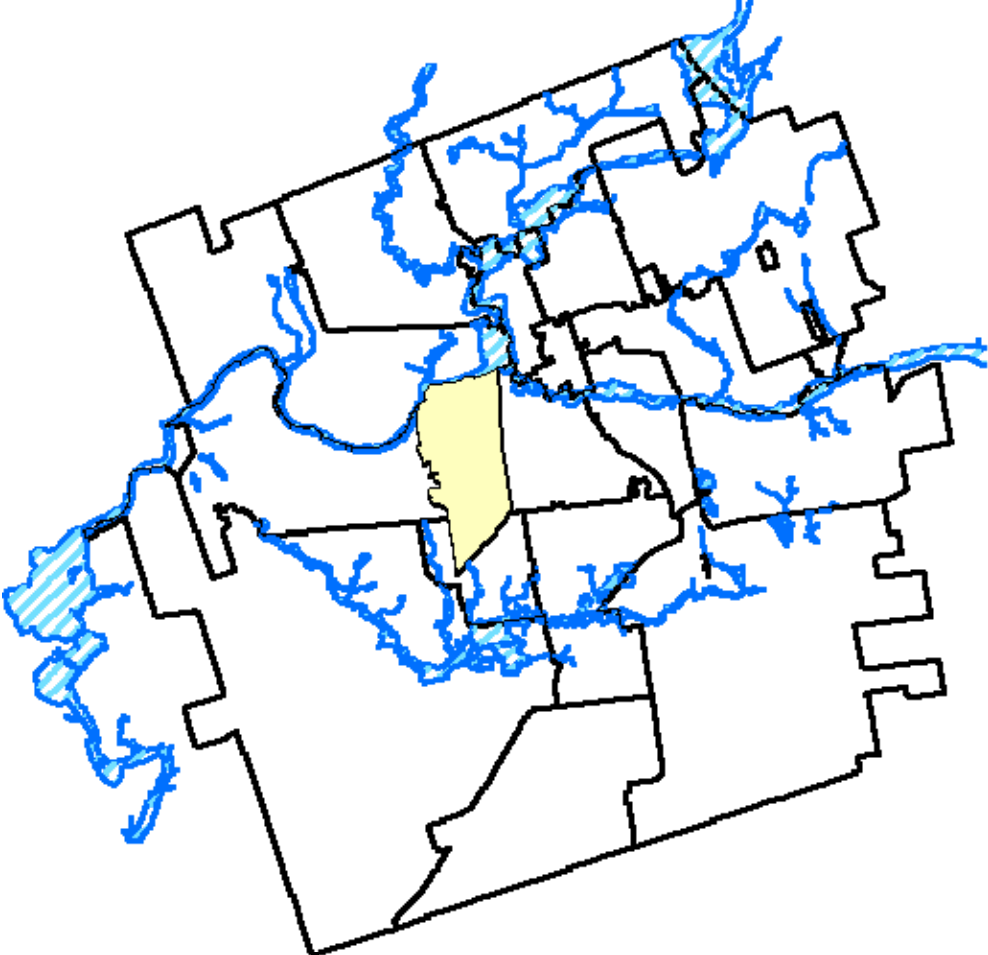
Postal Code - N6E



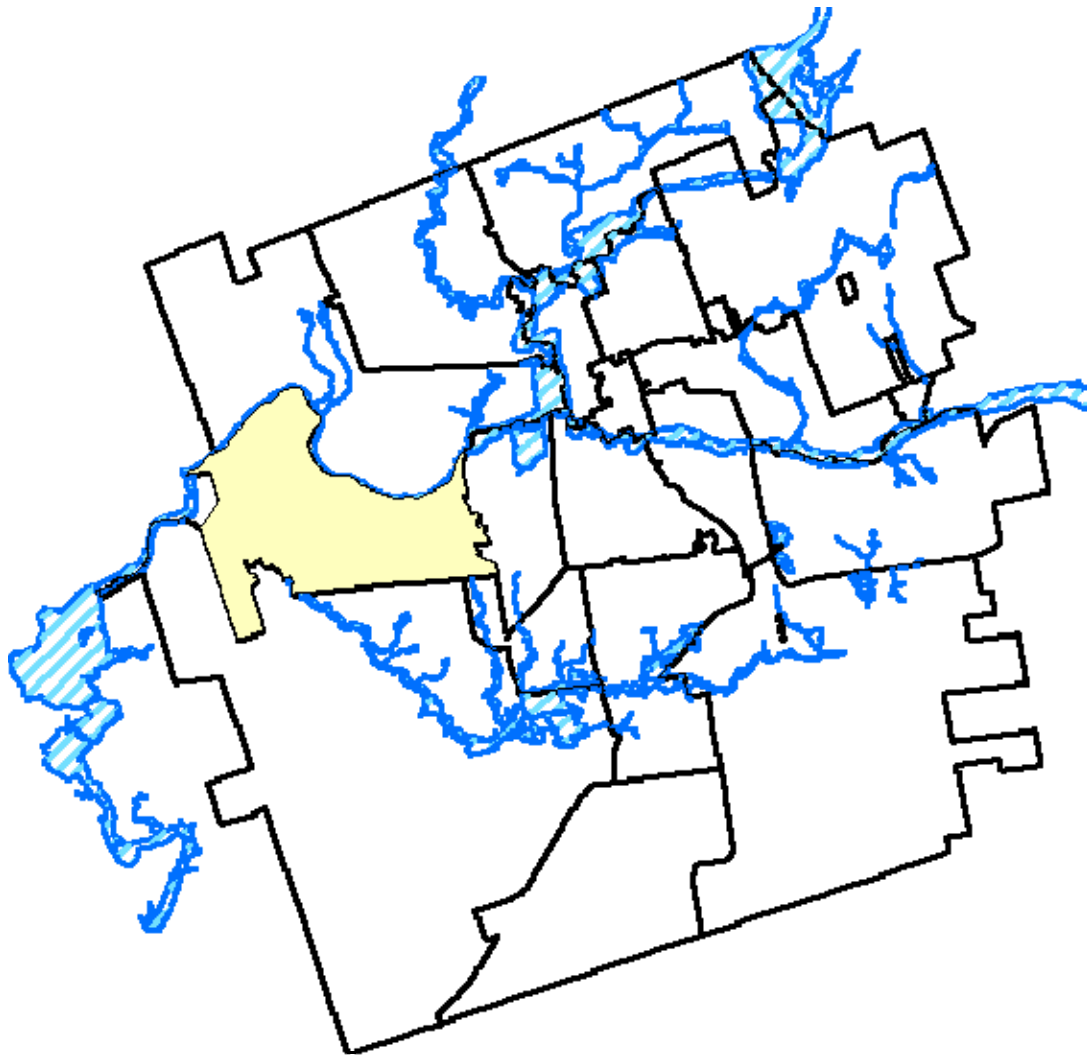
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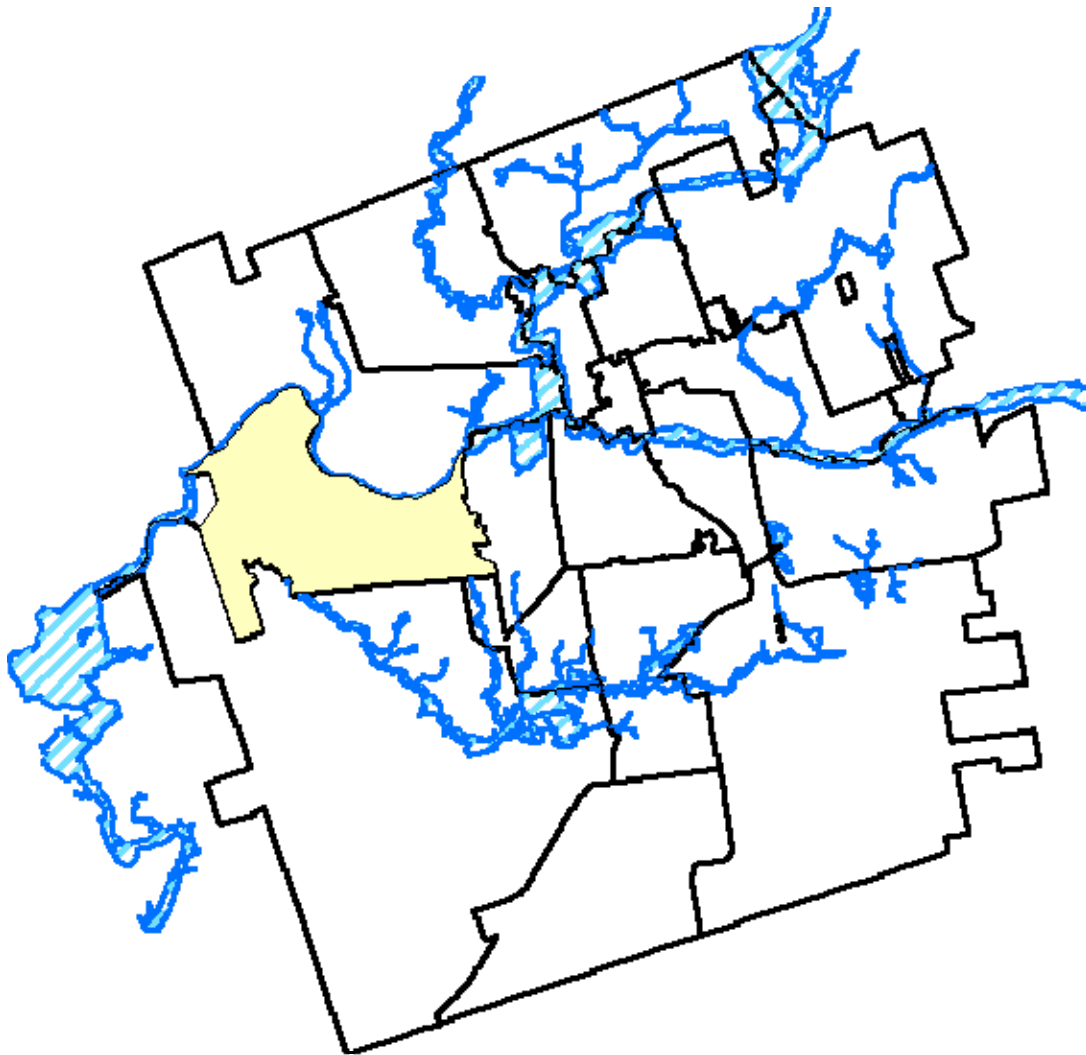
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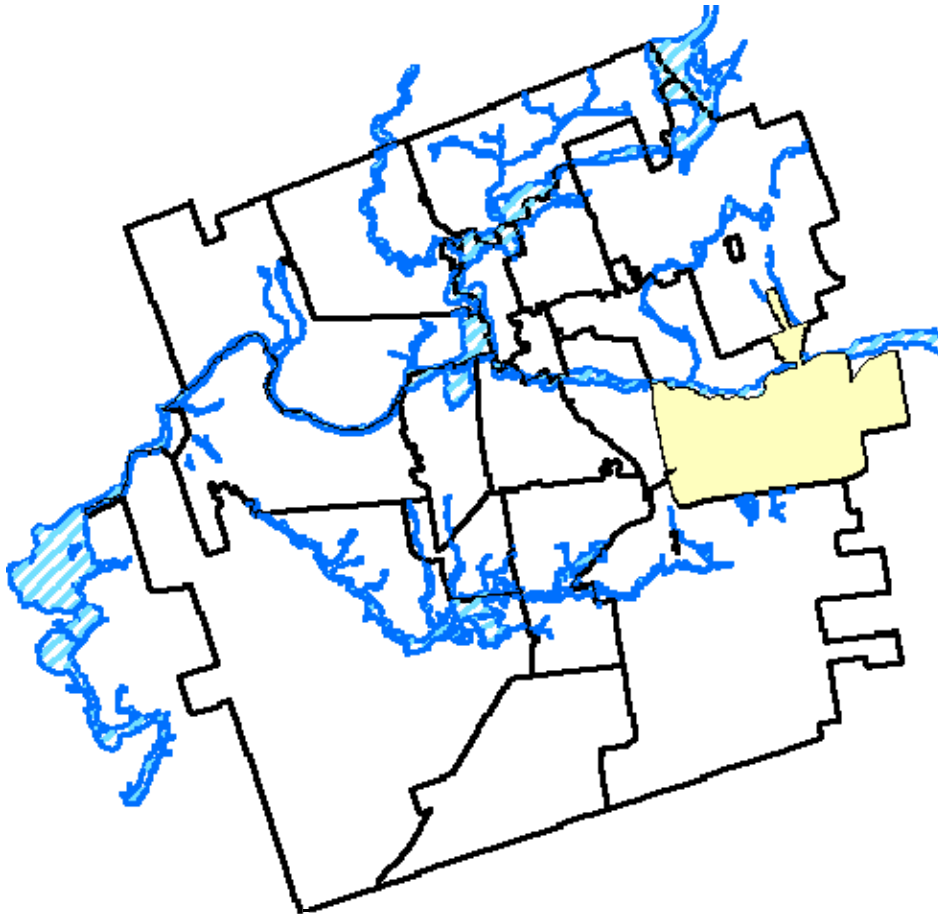
Postal Code - N6J



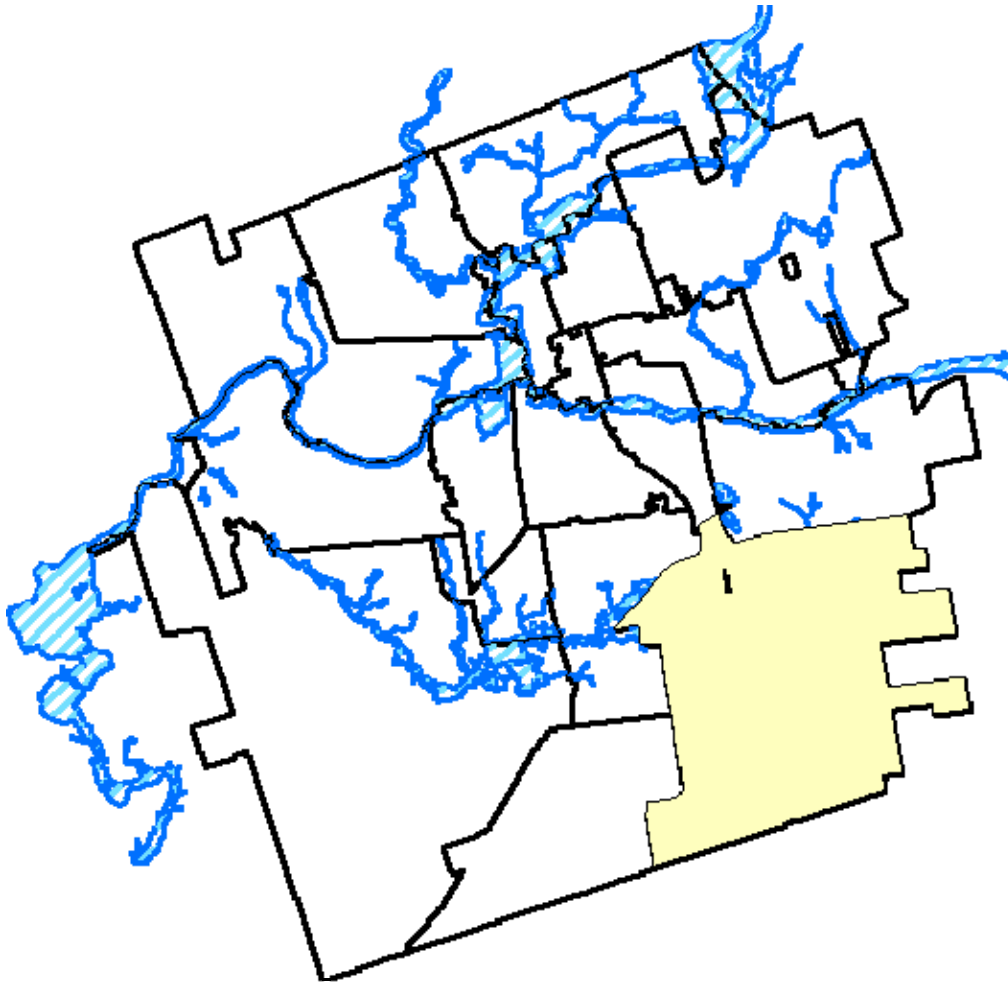
Postal Code - N6K



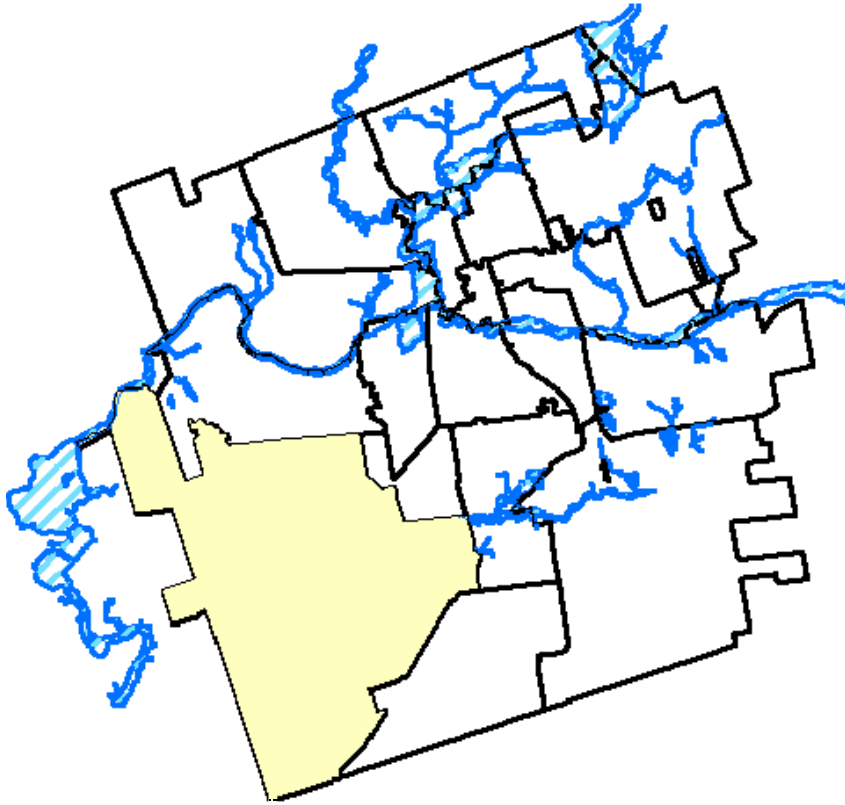
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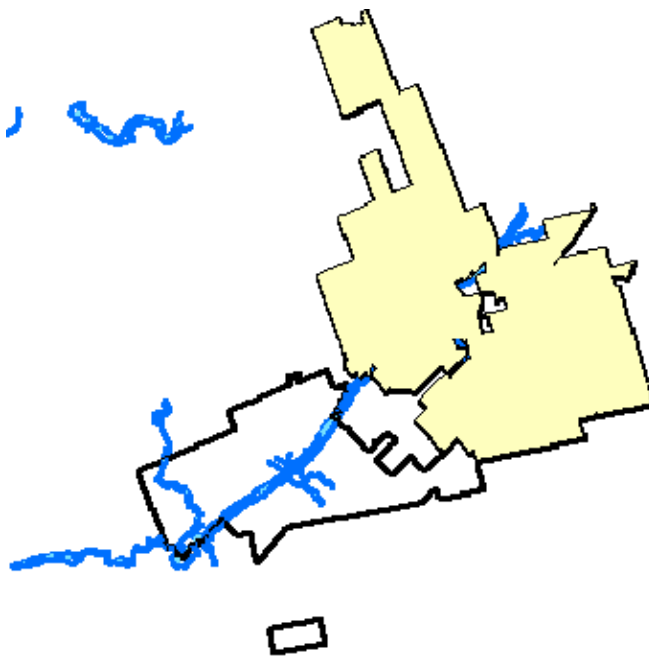
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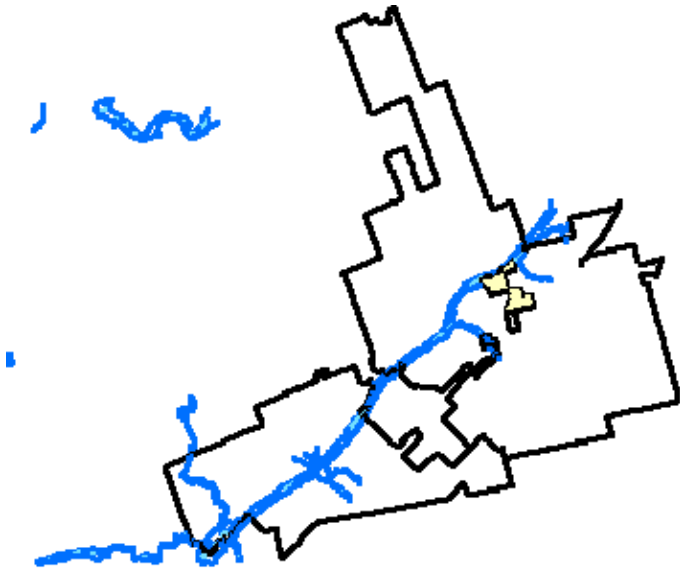
Postal Code - N6N



Postal Code - N6P



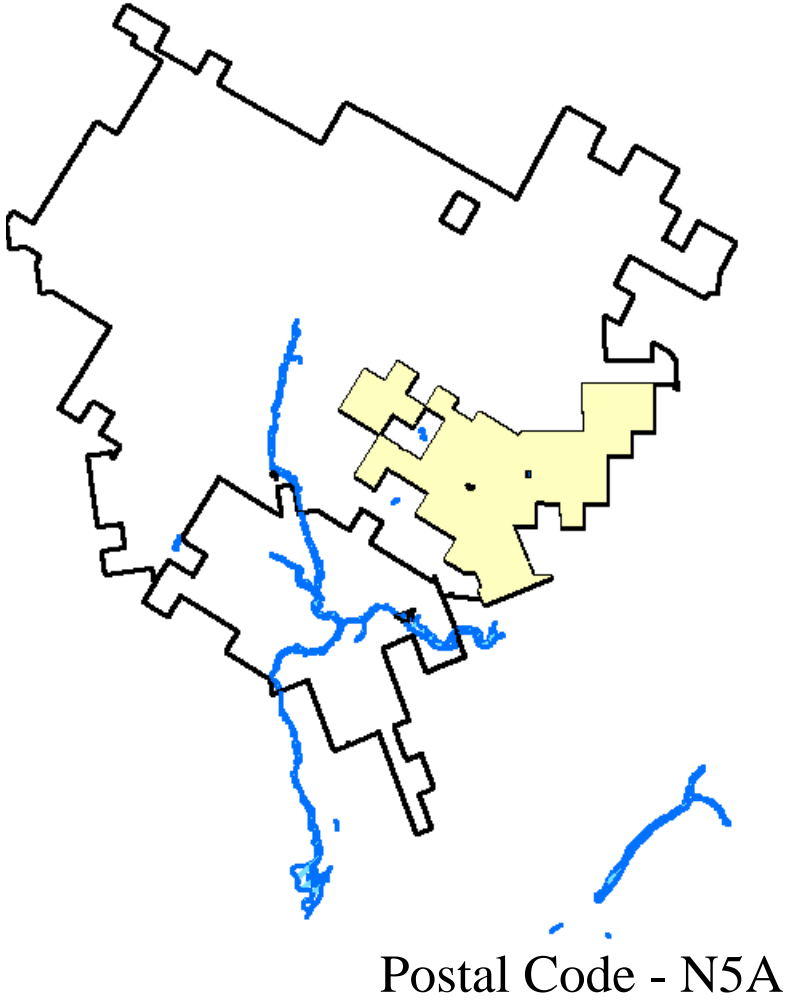
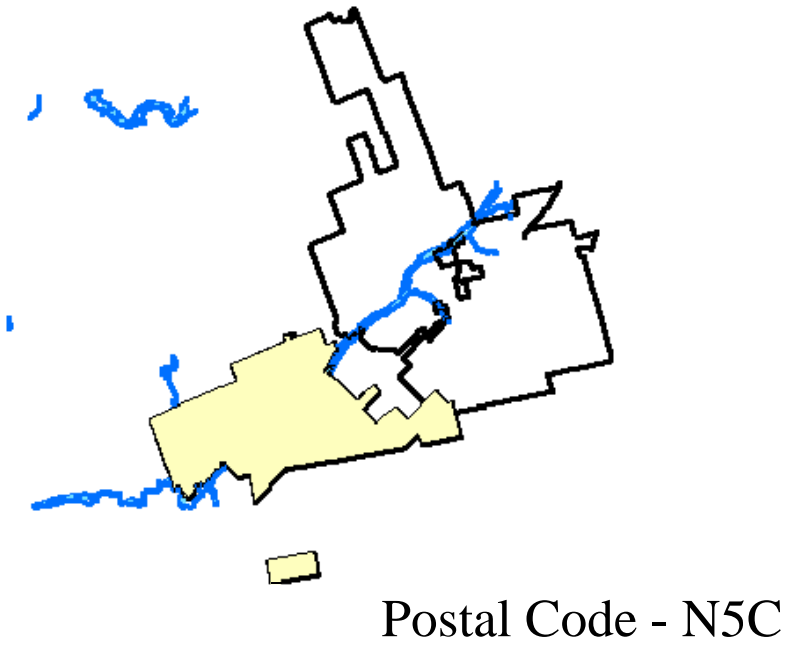
Postal Code - N4S

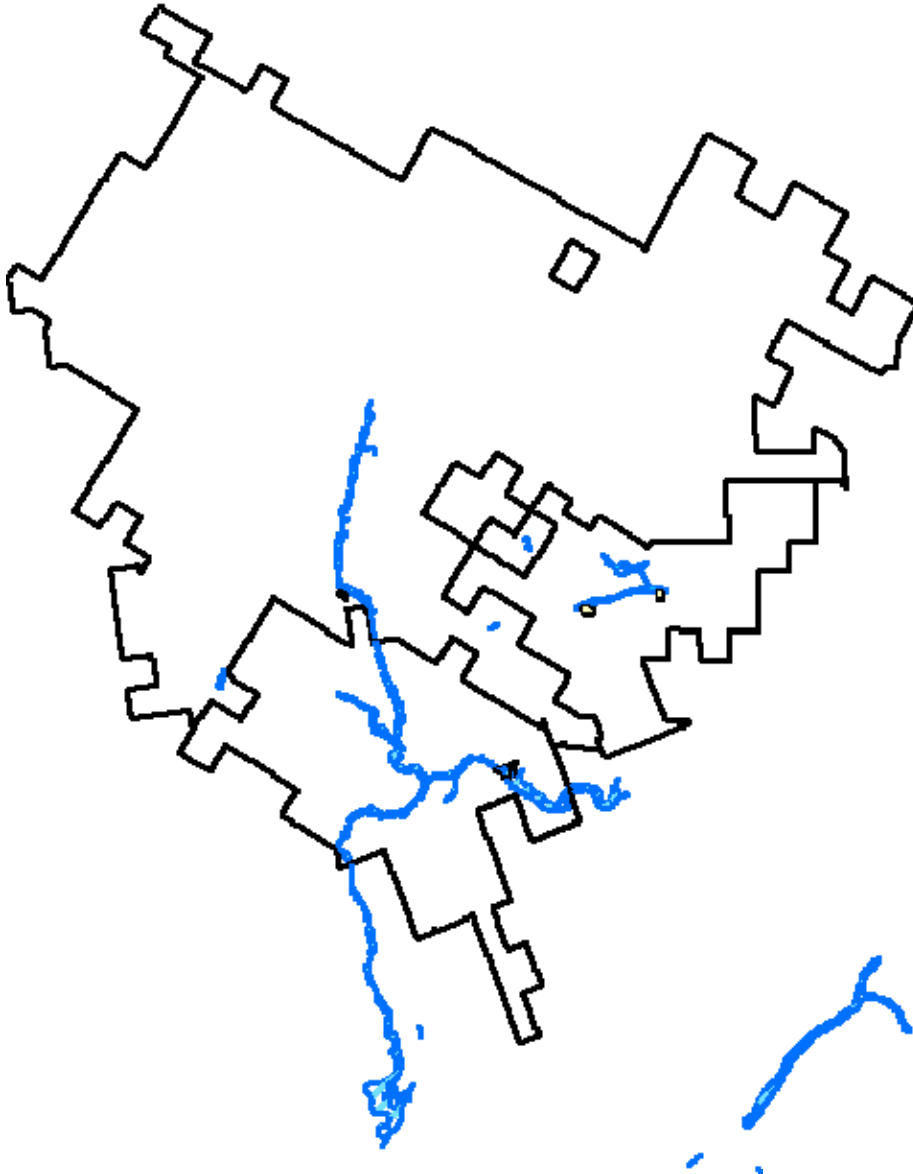


Postal Code - N4T

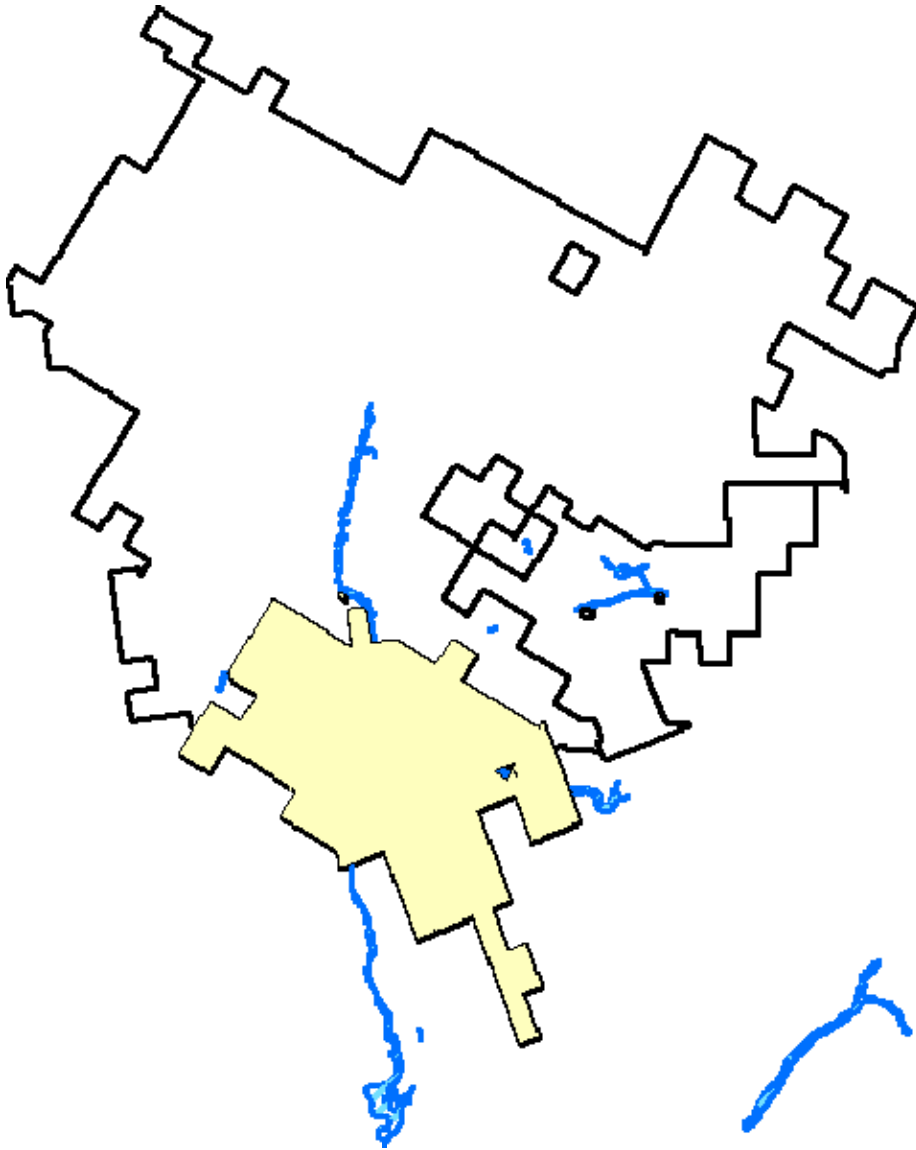


Postal Code - N4V

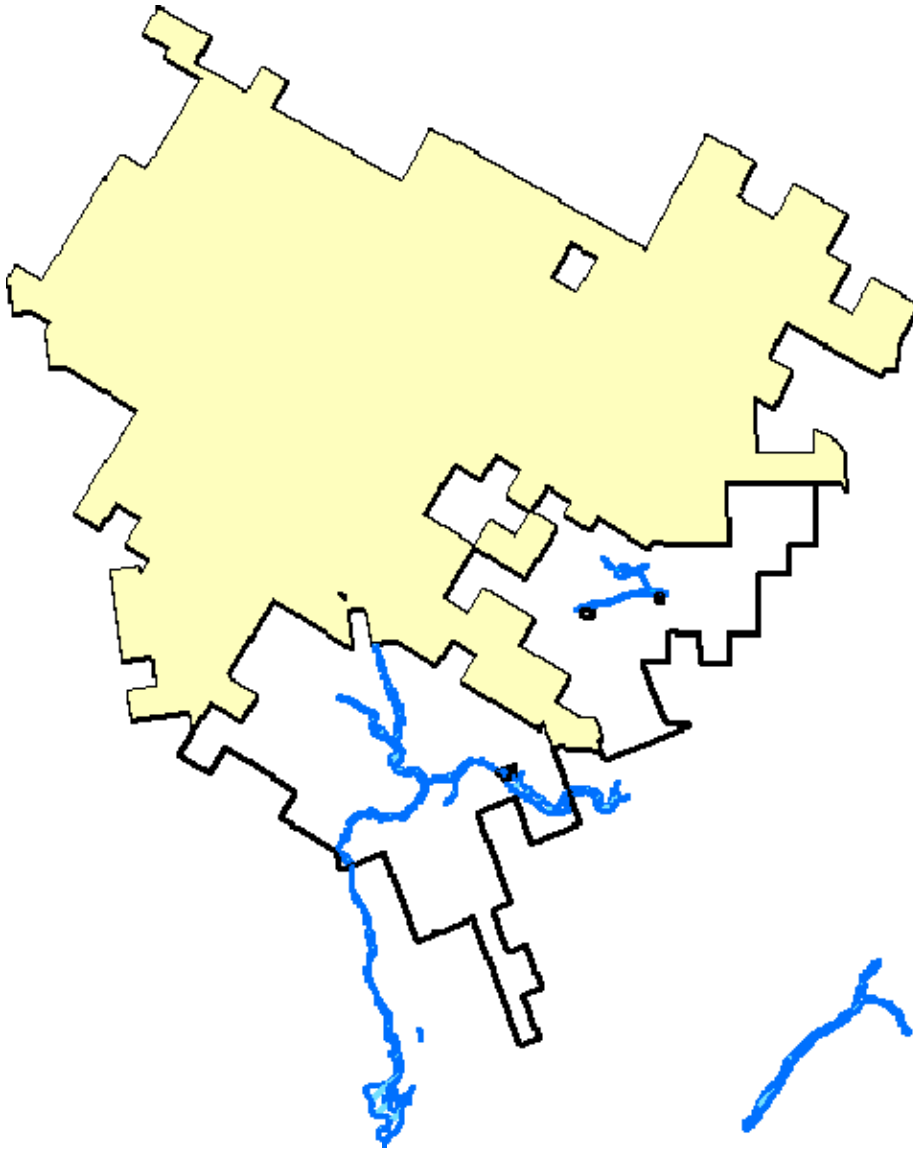




Postal Code - N4Z



Postal Code - N4X



Postal Code - N0K

APPENDIX C. RAW DATA

The Appendix C provides all the raw data on land use patterns, permeability of soil, and social data for different postal code regions. The social data include the details of earnings and income, education, families and dwellings, health, population and work.

(a) Land use

Table A. Area based on land use category for each postal region of London, Ontario, obtained from Ontario Fundamental Dataset GIS dataset, provided by the Serge A. Sawyer Map Library of the University of Western Ontario.

City	Postal Region	Postal Area	Land Use						
			Open	Commercial	Residential	Parks & Rec.	Gov. & Inst.	Resource & Indust.	Water body
London	N6A	0.000782	0.000109	0.000081	0.000341	0.00007	0.000129	0.000029	0.000023
	N6B	0.000354	0.000004	0.000079	0.000159	0.000003	0.000062	0.000041	0.000006
	N6C	0.001495	0.000295	0.000043	0.000817	0.000077	0.000116	0.000117	0.00003
	N6E	0.002274	0.001337	0.000038	0.000547	0.000013	0.000036	0.0003	0.000002
	N6G	0.00285	0.001547	0.000047	0.00095	0.000166	0.000096	0.000019	0.000026
	N6H	0.004585	0.00302	0.000045	0.000902	0.00029	0.000149	0.000096	0.000083
	N6J	0.001305	0.000303	0.000018	0.000744	0.000092	0.000051	0.000076	0.000022
	N6K	0.003139	0.002065	0.000022	0.000925	0.000034	0.000037	0.000023	0.000034
	N6L	0.004183	0.004102	0	0.000006	0.000036	0	0.000033	0.000005
	N6M	0.003166	0.002967	0	0.000077	0.00004	0	0.00007	0.000012
	N6N	0.007712	0.007453	0.000021	0.000006	0.000072	0	0.000139	0.000021
	N6P	0.011368	0.010947	0.000008	0.000229	0.000148	0.000012	0	0.000024
	N5V	0.00516	0.003259	0.000053	0.000873	0.000172	0.000143	0.000522	0.000138
	N5W	0.001729	0.000423	0.000054	0.000731	0.000065	0.000073	0.000363	0.000021
	N5X	0.002986	0.00207	0.000029	0.000661	0.000113	0.000014	0.000018	0.000082
	N5Y	0.001128	0.000204	0.000046	0.000712	0.000041	0.000066	0.000056	0.000003
	N5Z	0.001164	0.000229	0.000015	0.000726	0.000031	0.000013	0.000118	0.000031
	N6A	0.000782	0.000109	0.000081	0.000341	0.00007	0.000129	0.000029	0.000023
	N6B	0.000354	0.000004	0.000079	0.000159	0.000003	0.000062	0.000041	0.000006
N6C	0.001495	0.000295	0.000043	0.000817	0.000077	0.000116	0.000117	0.00003	
N6E	0.002274	0.001337	0.000038	0.000547	0.000013	0.000036	0.0003	0.000002	
N6G	0.00285	0.001547	0.000047	0.00095	0.000166	0.000096	0.000019	0.000026	
N6H	0.004585	0.00302	0.000045	0.000902	0.00029	0.000149	0.000096	0.000083	
N6J	0.001305	0.000303	0.000018	0.000744	0.000092	0.000051	0.000076	0.000022	
N6K	0.003139	0.002065	0.000022	0.000925	0.000034	0.000037	0.000023	0.000034	

(b) Permeability

Table B. The drainage characteristics of soils from different postal regions, obtained from the Surficial Geology of Southern Ontario GIS dataset.

City	Postal Region	Area	Permeability				SUM
			Low	Low-Medium	High	Variable	
London	N6A	0.000782	0.000067	0.000012	0.000465	0.000238	0.000782
	N6B	0.000354	0	0	0.000322	0.000032	0.000354
	N6C	0.001495	0.001137	0.000103	0.000152	0.000103	0.001495
	N6E	0.002274	0.001839	0.000064	0.000304	0.000066	0.002273
	N6G	0.00285	0.000217	0.001935	0.000378	0.000319	0.002849
	N6H	0.004585	0.000673	0.002155	0.001283	0.000474	0.004585
	N6J	0.001305	0.000929	0	0.000194	0.000182	0.001305
	N6K	0.003139	0.001232	0	0.001629	0.000279	0.00314
	N6L	0.004183	0.003569	0	0.000336	0.000278	0.004183
	N6M	0.003166	0.001528	0.000693	0.000685	0.00026	0.003166
	N6N	0.007712	0.006112	0	0.001301	0.000298	0.007711
	N6P	0.011368	0.007746	0.000025	0.002833	0.000763	0.011367
	N5V	0.00516	0.000714	0.001785	0.002406	0.000256	0.005161
	N5W	0.001729	0	0.000259	0.001202	0.000267	0.001728
	N5X	0.002986	0.000245	0.0009	0.001476	0.000365	0.002986
	N5Y	0.001128	0.00024	0.00001	0.000734	0.000145	0.001129
	N5Z	0.001164	0.00039	0.000011	0.000596	0.000168	0.001165
St. Marys	N4X	0.167959	.	.	.	.	.
Ingersoll	N5C	0.036086	.	.	.	.	.
Woodstock	N4S	0.000452	.	.	.	.	.
	N4T	0.000235	.	.	.	.	.
	N4V	0.036262	.	.	.	.	.
Stratford	N4Z	0.000058	.	.	.	.	.
	N5A	0.025854	.	.	.	.	.
Mitchell	N0K	0.01652	.	.	.	.	.

(c) Social Data**Stats on from this document**

- Earnings and Income
- Education
- Families and Dwellings
- Health
- Population
- Work

Source:

<http://www12.statcan.ca/english/Profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=3539036&Geo2=PR&Code2=35&Data=Count&SearchText=London&SearchType=Begins&SearchPR=01&B1=All&Custom=>

All Data	London Ontario (City)			Ontario (Province)		
	SELECT ANOTHER REGION			SELECT ANOTHER REGION		
	London, City			Ontario		
Population and Dwelling Counts	Total	Male	Female	Total	Male	Female
Population in 2001 (1)	336,539			11,410,046±		
Population in 1996 (2)	325,669A			10,753,573±		
1996 to 2001 population change (%)	3.3			6.1		
Total private dwellings	146,976			4,556,240		
Population density per square kilometre	797.9			12.6		
Land area (square km)	421.77			907,655.59		
Age Characteristics of the Population	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons (3)	336,540	161,850	174,685	11,410,050	5,577,055	5,832,990
Age 0-4	19,235	9,905	9,330	671,250	343,340	327,905
Age 5-14	44,925	23,090	21,835	1,561,500	801,355	760,145
Age 15-19	22,720	11,395	11,325	769,420	394,915	374,500
Age 20-24	25,880	12,515	13,370	718,420	359,645	358,775
Age 25-44	102,765	50,270	52,490	3,518,010	1,724,535	1,793,480
Age 45-54	47,310	22,625	24,685	1,635,280	801,540	833,740
Age 55-64	29,670	14,110	15,560	1,064,000	520,565	543,430
Age 65-74	23,175	10,400	12,770	818,165	383,625	434,545
Age 75-84	16,145	6,205	9,945	503,930	202,265	301,665
Age 85 and over	4,715	1,345	3,370	150,075	45,260	104,810
Median age of the population	36.6	35.2	37.7	37.2	36.4	38.0
% of the population ages 15 and over	80.9	79.6	82.2	80.4	79.5	81.3
Common-law Status	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Population 15 years and over (4)	272,380	128,860	143,515	9,177,300	4,432,360	4,744,935

Not in a common-law relationship	252,420	118,875	133,540	8,592,795	4,138,645	4,454,140
In a common-law relationship	19,955	9,985	9,975	584,505	293,715	290,790
	London, City			Ontario		
Legal Marital Status	Total	Male	Female	Total	Male	Female
Total - Population 15 years and over (5)	272,380	128,860	143,520	9,177,300	4,432,365	4,744,935
Single (6)	89,870	46,385	43,485	2,793,080	1,490,270	1,302,805
Married (7)	133,005	66,490	66,510	4,897,095	2,450,975	2,446,125
Separated (8)	10,945	4,690	6,255	311,380	136,075	175,305
Divorced (9)	21,365	8,375	12,990	597,595	249,825	347,770
Widowed (10)	17,195	2,925	14,275	578,145	105,215	472,935
	London, City			Ontario		
Language(s) First Learned and Still Understood	Total	Male	Female	Total	Male	Female
Total - All persons (19)	332,940	160,430	172,510	11,285,545	5,529,145	5,756,400
English only	265,805	128,040	137,760	7,965,225	3,913,300	4,051,925
French only	4,615	1,960	2,655	485,630	230,080	255,550
Both English and French	690	280	410	37,135	17,165	19,975
Other languages (20)	61,830	30,155	31,675	2,797,555	1,368,600	1,428,950
	London, City			Ontario		
Mobility Status - Place of Residence 1 Year Ago	Total	Male	Female	Total	Male	Female
Total population 1 year and over (21)	329,435	158,715	170,720	11,156,120	5,462,480	5,693,640
Lived at the same address 1 year ago	271,545	130,285	141,260	9,610,125	4,696,350	4,913,765
Lived within the same province/territory 1 year ago, but changed address	51,880	25,520	26,355	1,321,240	653,755	667,480
Lived in a different province/territory or country 1 year ago	6,015	2,905	3,105	224,760	112,365	112,395
	London, City			Ontario		
Mobility Status - Place of Residence 5 Years Ago	Total	Male	Female	Total	Male	Female
Total population 5 years and over (22)	313,605	150,515	163,090	10,609,755	5,183,200	5,426,555
Lived at the same address 5 years ago	164,705	78,530	86,175	6,067,755	2,951,790	3,115,965
Lived within the same province/territory 5 years ago, but changed address	131,635	63,650	67,985	3,784,170	1,855,225	1,928,945
Lived in a different province/territory or country 5	17,270	8,335	8,930	757,830	376,190	381,650

years ago						
Immigration Characteristics	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons	332,935	160,430	172,510	11,285,545	5,529,145	5,756,400
Canadian-born population (23)	260,725	125,625	135,100	8,164,860	4,029,890	4,134,965
Foreign-born population (24)	69,175	33,290	35,885	3,030,075	1,453,510	1,576,565
Immigrated before 1991	50,695	24,410	26,285	2,007,705	964,585	1,043,120
Immigrated between 1991 and 2001 (25)	18,475	8,875	9,595	1,022,370	488,930	533,440
Non-permanent residents (26)	3,040	1,515	1,520	90,615	45,745	44,870
Aboriginal Population	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons	332,940	160,430	172,505	11,285,545	5,529,150	5,756,400
Aboriginal identity population (27)	4,600	2,100	2,495	188,315	91,140	97,180
Non-Aboriginal population	328,340	158,330	170,015	11,097,235	5,438,010	5,659,225
Visible Minority Status	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total population by visible minority groups	332,940	160,430	172,510	11,285,550	5,529,145	5,756,400
Visible minority population (31)	36,420	18,090	18,330	2,153,045	1,049,890	1,103,160
Chinese	4,435	2,210	2,230	481,510	234,925	246,585
South Asian	4,660	2,395	2,265	554,870	281,355	273,510
Black	7,140	3,640	3,505	411,090	193,110	217,980
Filipino	1,525	590	940	156,515	67,090	89,425
Latin American	4,330	2,035	2,300	106,835	51,965	54,870
Southeast Asian	2,940	1,440	1,505	86,410	42,655	43,750
Arab	5,980	3,135	2,845	88,545	47,385	41,155
West Asian	1,420	770	645	67,100	35,440	31,660
Korean	1,615	765	850	53,955	26,090	27,855
Japanese	405	180	225	24,925	11,840	13,085
Visible minority, n.i.e (28)	1,185	575	605	78,915	36,915	42,000
Multiple visible minorities (29)	785	360	425	42,375	21,110	21,265
All others (30)	296,520	142,345	154,175	9,132,500	4,479,255	4,653,245
Religion	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Religion	332,940	160,430	172,505	11,285,545	5,529,150	5,756,400
Catholic (57)	97,015	46,290	50,725	3,911,760	1,891,660	2,020,100
Protestant	135,755	61,445	74,310	3,935,745	1,841,175	2,094,565
Christian Orthodox	5,925	2,960	2,965	264,055	132,490	131,570
Christian, n.i.e. (58)	8,270	4,130	4,145	301,935	144,215	157,720

Muslim	11,460	5,940	5,520	352,525	181,935	170,595
Jewish	1,825	905	925	190,795	92,920	97,875
Buddhist	2,485	1,265	1,225	128,320	61,100	67,220
Hindu	1,400	715	685	217,560	109,580	107,975
Sikh	485	250	235	104,790	53,390	51,395
Eastern religions (59)	455	245	205	17,785	8,745	9,035
Other religions (60)	855	380	475	18,985	8,530	10,455
No religious affiliation (61)	67,005	35,925	31,080	1,841,290	1,003,405	837,885
	London, City			Ontario		
School Attendance	Total	Male	Female	Total	Male	Female
Total population 15 years and over attending school full time	36,805	17,570	19,235	1,060,115	519,905	540,215
Age group 15-19 attending full time (50)	17,020	8,625	8,400	570,550	291,735	278,810
Age group 20-24 attending full time	12,255	5,330	6,925	312,470	148,215	164,255
Total population 15 years and over attending school part time	13,665	5,975	7,695	436,730	187,750	248,980
Age group 15-19 attending part time (50)	695	325	365	19,045	9,675	9,375
Age group 20-24 attending part time	2,005	1,075	930	57,580	29,190	28,390
	London, City			Ontario		
Highest Level of Schooling	Total	Male	Female	Total	Male	Female
Total population aged 20-34	72,900	35,570	37,330	2,263,910	1,112,910	1,150,995
% of the population aged 20-34 with less than a high school graduation certificate	11.9	13.7	10.1	13.2	14.9	11.5
% of the population aged 20-34 with a high school graduation certificate and/or some postsecondary (46)	35.4	39.0	31.9	33.7	36.1	31.5
% of the population aged 20-34 with a trades certificate or diploma	7.6	9.2	6.2	7.9	9.6	6.2
% of the population aged 20-34 with a college certificate or diploma (47)	21.1	17.2	24.7	19.5	16.5	22.4
% of the population aged 20-34 with a university certificate, diploma or degree	24.1	20.9	27.0	25.7	23.0	28.4
Total population aged 35-44	55,040	26,460	28,580	1,949,840	954,260	995,580
% of the population aged 35-44 with less than a high school graduation certificate	16.3	17.7	15.0	17.3	18.8	16.0

% of the population aged 35-44 with a high school graduation certificate and/or some postsecondary (46)	25.2	24.7	25.8	25.6	23.7	27.5
% of the population aged 35-44 with a trades certificate or diploma	12.0	15.4	8.9	11.5	15.0	8.2
% of the population aged 35-44 with a college certificate or diploma (47)	23.5	20.0	26.8	21.2	18.0	24.3
% of the population aged 35-44 with a university certificate, diploma or degree	22.9	22.2	23.5	24.3	24.6	24.1
Total population aged 45-64	76,670	36,490	40,180	2,684,705	1,311,380	1,373,325
% of the population aged 45-64 with less than a high school graduation certificate	24.0	23.4	24.5	27.5	26.5	28.4
% of the population aged 45-64 with a high school graduation certificate and/or some postsecondary (46)	23.1	21.2	24.9	22.9	19.9	25.7
% of the population aged 45-64 with a trades certificate or diploma	11.5	15.2	8.1	11.6	15.8	7.7
% of the population aged 45-64 with a college certificate or diploma (47)	18.8	15.4	21.9	16.6	13.8	19.2
% of the population aged 45-64 with a university certificate, diploma or degree	22.6	24.8	20.7	21.5	24.0	19.0
	London, City			Ontario		
Earnings in 2000	Total	Male	Female	Total	Male	Female
All persons with earnings (counts) (48)	185,640	95,045	90,590	6,319,535	3,311,105	3,008,425
Average earnings (all persons with earnings (\$))	32,433	39,387	25,138	35,185	42,719	26,894
Worked full year, full time (counts) (49)	101,280	57,500	43,780	3,527,045	2,061,355	1,465,690
Average earnings (worked full year, full time (\$))	44,072	50,364	35,809	47,299	53,937	37,962
	London, City			Ontario		
Income in 2000	Total	Male	Female	Total	Male	Female
Persons 15 years of age and over with income (53)	256,200			8,598,560		
Median total income of persons 15 years of age and over (\$)	23,751			24,816		

(54)						
Composition of total income (100%) (62)	100.0			100.0		
Earnings - % of income	75.8			78.7		
Government transfers - % of income	11.2			9.8		
Other money - % of income	13.0			11.5		
Language Used Most Often at Work	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Population 15 years and over who worked since 2000 (44)	191,175	97,610	93,570	6,512,560	3,408,090	3,104,475
English	187,880	96,050	91,830	6,227,550	3,271,705	2,955,845
French	655	190	460	88,720	38,320	50,395
Non-official language	1,440	780	660	103,035	52,835	50,210
English and French	385	180	205	47,865	21,580	26,285
English and non-official language	795	405	390	43,500	22,760	20,745
French and non-official language	0	0	0	265	140	120
English, French and non-official language	30	10	25	1,625	750	870
Place of Work Status	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Employed labour force 15 years and over (32)	166,910	85,660	81,255	5,713,900	3,027,620	2,686,285
Worked at home	9,735	4,840	4,895	406,230	202,530	203,700
Worked outside Canada	775	585	190	33,935	22,600	11,335
No fixed workplace address	14,155	10,610	3,545	466,950	352,800	114,145
Worked at usual place	142,245	69,615	72,630	4,806,790	2,449,685	2,357,100
Mode of Transportation to Work	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total -All modes (33)	156,405	80,230	76,175	5,273,740	2,802,490	2,471,250
Car, truck, van, as driver	118,425	63,585	54,840	3,831,095	2,190,400	1,640,695
Car, truck, van, as passenger	12,320	5,265	7,055	372,460	149,805	222,655
Public transit	11,845	4,445	7,400	672,310	270,755	401,550
Walked or bicycled	12,330	6,115	6,220	349,020	166,930	182,095
Other method	1,485	820	665	48,855	24,595	24,265
Unpaid Work	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Persons reporting hours of unpaid work (34)	245,610	113,625	131,990	8,229,410	3,886,440	4,342,975

Persons reporting hours of unpaid housework (35)	242,365	111,535	130,830	8,112,435	3,812,780	4,299,655
Persons reporting hours looking after children, without pay (36)	98,345	42,540	55,805	3,448,335	1,515,125	1,933,210
Persons reporting hours of unpaid care or assistance to seniors (37)	46,110	18,750	27,360	1,641,305	676,295	965,015
Labour Force Indicators	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Participation rate (38)	66.8	72.3	61.8	67.3	73.4	61.5
Employment rate (39)	62.1	67.2	57.5	63.2	69.1	57.6
Unemployment rate (40)	7.0	7.1	7.0	6.1	5.8	6.5
Industry	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Experienced labour force (41)	176,055	90,710	85,345	5,992,765	3,173,280	2,819,490
Agriculture and other resource-based industries	1,745	1,255	485	191,020	135,925	55,090
Manufacturing and construction industries	34,160	26,940	7,225	1,316,580	979,715	336,870
Wholesale and retail trade	28,870	14,875	13,995	950,730	484,505	466,230
Finance and real estate	13,665	5,560	8,105	401,445	171,350	230,095
Health and education	36,945	9,890	27,055	902,990	212,830	690,165
Business services	30,265	18,020	12,250	1,145,910	674,075	471,835
Other services	30,405	14,180	16,220	1,084,090	514,875	569,210
Occupation	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Experienced labour force (41)	176,055	90,715	85,345	5,992,765	3,173,275	2,819,490
Management occupations	17,605	10,880	6,725	685,390	434,475	250,915
Business, finance and administration occupations	31,995	8,945	23,050	1,097,835	311,995	785,835
Natural and applied sciences and related occupations	10,240	7,570	2,670	422,510	326,940	95,570
Health occupations	11,940	2,850	9,090	286,305	58,840	227,460
Social science, education, government service and religion	16,555	5,850	10,705	455,825	150,560	305,270
Art, culture, recreation and sport	4,730	2,075	2,650	171,840	79,010	92,830
Sales and service occupations	44,385	19,295	25,095	1,371,250	590,350	780,900
Trades, transport and equipment operators and	24,100	22,515	1,585	845,130	778,735	66,390

related occupations						
Occupations unique to primary industry	2,125	1,650	470	164,365	122,555	41,805
Occupations unique to processing, manufacturing and utilities	12,375	9,070	3,310	492,320	319,815	172,505
Selected Family Characteristics	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total number of families	91,755			3,190,990		
Number of married-couple families	65,580			2,406,340		
Average number of persons in married-couple families	3.1			3.2		
Number of common-law couple families (11)	10,095			298,540		
Average number of persons in common-law-couple families (11)	2.6			2.7		
Number of lone-parent families (12)	16,075			486,105		
Average number of persons in lone-parent families (12)	2.5			2.5		
Number of female lone-parent families (12)	13,760			401,240		
Average number of persons in female lone-parent families (12)	2.5			2.6		
Number of male lone-parent families (12)	2,315			84,860		
Average number of persons in male lone-parent families (12)	2.4			2.5		
Median family income, 2000 (\$) - All census families (51)	58,687			61,024		
Median family income, 2000 (\$) - Couple families (52)	65,001			66,476		
Median family income, 2000 (\$) - Lone-parent families	29,809			33,724		
Selected Household Characteristics	London, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All private households	137,760			4,219,410		
Households containing a couple (married or common-law) with children (13)	38,085			1,376,975		
Households containing a couple (married or common-law) without children (14)	36,080			1,179,330		

One-person households	40,915	990,160				
Other household types (15)	22,680	672,950				
Median household income, 2000 (\$) - All households	46,153	53,626				
Median household income, 2000 (\$) - One-person households	23,372	25,253				
Median household income, 2000 (\$) - Two-or-more-persons households	59,159	64,201				
Number of rented dwellings (55)	56,230	1,346,990				
Average gross monthly payments for rented dwellings (\$)	652	753				
Number of owner-occupied dwellings (56)	81,415	2,816,220				
Average monthly payments for owner-occupied dwellings (\$)	893	964				
Selected Occupied Private Dwelling Characteristics	London, City		Ontario			
	Total	Male	Female	Total	Male	Female
Total number of dwellings (16)	137,760			4,219,415		
Number of owned dwellings (17)	81,510			2,862,300		
Number of rented dwellings (18)	56,250			1,351,365		
Number of dwellings constructed before 1991	121,725			3,615,880		
Number of dwellings constructed between 1991 and 2001	16,035			603,530		
Average value of dwelling (\$)	155,689			199,884		

Stats on from this document

- Earnings and Income
- Education
- Families and Dwellings
- Health
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- Work

Source:

<http://www12.statcan.ca/english/Profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=3532018&Geo2=PR&Code2=35&Data=Count&SearchText=Ingersoll&SearchType=Begins&SearchPR=01&B1=All&Custom=>

All Data	Ingersoll Ontario (Town)			Ontario (Province)		
	SELECT ANOTHER REGION			SELECT ANOTHER REGION		
	Ingersoll, Town			Ontario		
Population and Dwelling Counts	Total	Male	Female	Total	Male	Female
Population in 2001 (1)	10,977			11,410,046±		
Population in 1996 (2)	10,502A			10,753,573±		
1996 to 2001 population change (%)	4.5			6.1		
Total private dwellings	4,347			4,556,240		
Population density per square kilometre	851.2			12.6		
Land area (square km)	12.90			907,655.59		
Age Characteristics of the Population	Ingersoll, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons (3)	10,975	5,365	5,610	11,410,050	5,577,055	5,832,990
Age 0-4	725	385	340	671,250	343,340	327,905
Age 5-14	1,690	855	830	1,561,500	801,355	760,145
Age 15-19	745	400	345	769,420	394,915	374,500
Age 20-24	580	290	300	718,420	359,645	358,775
Age 25-44	3,360	1,675	1,685	3,518,010	1,724,535	1,793,480
Age 45-54	1,435	705	725	1,635,280	801,540	833,740
Age 55-64	940	470	470	1,064,000	520,565	543,430
Age 65-74	730	325	400	818,165	383,625	434,545
Age 75-84	575	200	370	503,930	202,265	301,665
Age 85 and over	205	60	140	150,075	45,260	104,810
Median age of the population	36.8	35.8	37.7	37.2	36.4	38.0
% of the population ages 15 and over	78.0	77.0	79.1	80.4	79.5	81.3
Common-law Status	Ingersoll, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Population 15 years and over (4)	8,565	4,125	4,440	9,177,300	4,432,360	4,744,935
Not in a common-law relationship	7,910	3,800	4,110	8,592,795	4,138,645	4,454,140
In a common-law relationship	650	325	330	584,505	293,715	290,790
Legal Marital Status	Ingersoll, Town			Ontario		
	Total	Male	Female	Total	Male	Female

Total - Population 15 years and over (5)	8,565	4,130	4,440	9,177,300	4,432,365	4,744,935
Single (6)	2,120	1,165	955	2,793,080	1,490,270	1,302,805
Married (7)	4,775	2,385	2,390	4,897,095	2,450,975	2,446,125
Separated (8)	350	170	175	311,380	136,075	175,305
Divorced (9)	670	300	370	597,595	249,825	347,770
Widowed (10)	650	105	550	578,145	105,215	472,935
Language(s) First Learned and Still Understood	Ingersoll, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons (19)	10,835	5,330	5,500	11,285,545	5,529,145	5,756,400
English only	10,230	5,000	5,225	7,965,225	3,913,300	4,051,925
French only	125	65	60	485,630	230,080	255,550
Both English and French	0	0	0	37,135	17,165	19,975
Other languages (20)	475	260	210	2,797,555	1,368,600	1,428,950
Mobility Status - Place of Residence 1 Year Ago	Ingersoll, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total population 1 year and over (21)	10,720	5,270	5,450	11,156,120	5,462,480	5,693,640
Lived at the same address 1 year ago	9,140	4,460	4,675	9,610,125	4,696,350	4,913,765
Lived within the same province/territory 1 year ago, but changed address	1,510	775	735	1,321,240	653,755	667,480
Lived in a different province/territory or country 1 year ago	70	30	35	224,760	112,365	112,395
Mobility Status - Place of Residence 5 Years Ago	Ingersoll, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total population 5 years and over (22)	10,105	4,975	5,130	10,609,755	5,183,200	5,426,555
Lived at the same address 5 years ago	5,860	2,810	3,045	6,067,755	2,951,790	3,115,965
Lived within the same province/territory 5 years ago, but changed address	4,110	2,095	2,015	3,784,170	1,855,225	1,928,945
Lived in a different province/territory or country 5 years ago	140	70	75	757,830	376,190	381,650
Immigration Characteristics	Ingersoll, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons	10,835	5,330	5,500	11,285,545	5,529,145	5,756,400
Canadian-born population (23)	10,140	5,005	5,135	8,164,860	4,029,890	4,134,965

Foreign-born population (24)	690	330	360	3,030,075	1,453,510	1,576,565
Immigrated before 1991	635	310	325	2,007,705	964,585	1,043,120
Immigrated between 1991 and 2001 (25)	60	20	35	1,022,370	488,930	533,440
Non-permanent residents (26)	0	0	10	90,615	45,745	44,870
	Ingersoll, Town			Ontario		
Aboriginal Population	Total	Male	Female	Total	Male	Female
Total - All persons	10,835	5,330	5,500	11,285,545	5,529,150	5,756,400
Aboriginal identity population (27)	90	55	30	188,315	91,140	97,180
Non-Aboriginal population	10,745	5,275	5,465	11,097,235	5,438,010	5,659,225
	Ingersoll, Town			Ontario		
Visible Minority Status	Total	Male	Female	Total	Male	Female
Total population by visible minority groups	10,835	5,335	5,500	11,285,550	5,529,145	5,756,400
Visible minority population (31)	180	85	100	2,153,045	1,049,890	1,103,160
Chinese	0	0	0	481,510	234,925	246,585
South Asian	10	10	0	554,870	281,355	273,510
Black	80	30	50	411,090	193,110	217,980
Filipino	20	0	15	156,515	67,090	89,425
Latin American	0	10	0	106,835	51,965	54,870
Southeast Asian	10	10	10	86,410	42,655	43,750
Arab	0	0	0	88,545	47,385	41,155
West Asian	0	0	0	67,100	35,440	31,660
Korean	35	15	15	53,955	26,090	27,855
Japanese	10	0	0	24,925	11,840	13,085
Visible minority, n.i.e (28)	0	0	10	78,915	36,915	42,000
Multiple visible minorities (29)	0	10	0	42,375	21,110	21,265
All others (30)	10,650	5,250	5,400	9,132,500	4,479,255	4,653,245
	Ingersoll, Town			Ontario		
Religion	Total	Male	Female	Total	Male	Female
Total - Religion	10,830	5,330	5,500	11,285,545	5,529,150	5,756,400
Catholic (57)	1,880	910	975	3,911,760	1,891,660	2,020,100
Protestant	6,705	3,205	3,495	3,935,745	1,841,175	2,094,565
Christian Orthodox	30	25	10	264,055	132,490	131,570
Christian, n.i.e. (58)	225	130	95	301,935	144,215	157,720
Muslim	0	0	0	352,525	181,935	170,595
Jewish	15	10	10	190,795	92,920	97,875
Buddhist	25	15	10	128,320	61,100	67,220
Hindu	0	0	0	217,560	109,580	107,975
Sikh	0	0	0	104,790	53,390	51,395
Eastern religions (59)	0	0	0	17,785	8,745	9,035
Other religions (60)	15	10	10	18,985	8,530	10,455

No religious affiliation (61)	1,925	1,035	895	1,841,290	1,003,405	837,885
School Attendance	Ingersoll, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total population 15 years and over attending school full time	790	425	365	1,060,115	519,905	540,215
Age group 15-19 attending full time (50)	525	315	215	570,550	291,735	278,810
Age group 20-24 attending full time	180	60	120	312,470	148,215	164,255
Total population 15 years and over attending school part time	350	165	185	436,730	187,750	248,980
Age group 15-19 attending part time (50)	35	15	25	19,045	9,675	9,375
Age group 20-24 attending part time	0	0	0	57,580	29,190	28,390
Highest Level of Schooling	Ingersoll, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total population aged 20-34	1,945	990	955	2,263,910	1,112,910	1,150,995
% of the population aged 20-34 with less than a high school graduation certificate	19.5	23.2	15.7	13.2	14.9	11.5
% of the population aged 20-34 with a high school graduation certificate and/or some postsecondary (46)	36.8	38.9	34.6	33.7	36.1	31.5
% of the population aged 20-34 with a trades certificate or diploma	11.3	11.6	11.0	7.9	9.6	6.2
% of the population aged 20-34 with a college certificate or diploma (47)	22.6	20.7	24.6	19.5	16.5	22.4
% of the population aged 20-34 with a university certificate, diploma or degree	9.8	6.1	13.1	25.7	23.0	28.4
Total population aged 35-44	1,995	1,040	955	1,949,840	954,260	995,580
% of the population aged 35-44 with less than a high school graduation certificate	19.3	22.6	15.7	17.3	18.8	16.0
% of the population aged 35-44 with a high school graduation certificate and/or some postsecondary (46)	32.3	28.4	36.6	25.6	23.7	27.5
% of the population aged 35-44 with a trades certificate or diploma	15.0	21.6	7.3	11.5	15.0	8.2
% of the population aged 35-44	24.3	21.6	27.7	21.2	18.0	24.3

with a college certificate or diploma (47)						
% of the population aged 35-44 with a university certificate, diploma or degree	8.8	5.8	12.0	24.3	24.6	24.1
Total population aged 45-64	2,365	1,130	1,235	2,684,705	1,311,380	1,373,325
% of the population aged 45-64 with less than a high school graduation certificate	37.2	36.3	37.7	27.5	26.5	28.4
% of the population aged 45-64 with a high school graduation certificate and/or some postsecondary (46)	26.2	25.7	26.7	22.9	19.9	25.7
% of the population aged 45-64 with a trades certificate or diploma	12.7	18.6	7.3	11.6	15.8	7.7
% of the population aged 45-64 with a college certificate or diploma (47)	14.6	8.4	19.4	16.6	13.8	19.2
% of the population aged 45-64 with a university certificate, diploma or degree	9.5	11.1	8.5	21.5	24.0	19.0
	Ingersoll, Town			Ontario		
Earnings in 2000	Total	Male	Female	Total	Male	Female
All persons with earnings (counts) (48)	5,980	3,305	2,670	6,319,535	3,311,105	3,008,425
Average earnings (all persons with earnings (\$))	31,924	38,654	23,596	35,185	42,719	26,894
Worked full year, full time (counts) (49)	3,595	2,200	1,395	3,527,045	2,061,355	1,465,690
Average earnings (worked full year, full time (\$))	43,088	48,641	34,314	47,299	53,937	37,962
	Ingersoll, Town			Ontario		
Income in 2000	Total	Male	Female	Total	Male	Female
Persons 15 years of age and over with income (53)	8,050			8,598,560		
Median total income of persons 15 years of age and over (\$) (54)	25,922			24,816		
Composition of total income (100%) (62)	100.0			100.0		
Earnings - % of income	79.3			78.7		
Government transfers - % of income	11.1			9.8		
Other money - % of income	9.6			11.5		
	Ingersoll, Town			Ontario		
Language Used Most Often at	Ingersoll, Town			Ontario		

Work	Total	Male	Female	Total	Male	Female
Total - Population 15 years and over who worked since 2000 (44)	6,160	3,380	2,785	6,512,560	3,408,090	3,104,475
English	6,125	3,360	2,770	6,227,550	3,271,705	2,955,845
French	0	0	0	88,720	38,320	50,395
Non-official language	20	15	10	103,035	52,835	50,210
English and French	0	0	0	47,865	21,580	26,285
English and non-official language	10	0	0	43,500	22,760	20,745
French and non-official language	0	0	0	265	140	120
English, French and non-official language	0	0	0	1,625	750	870
	Ingersoll, Town			Ontario		
Place of Work Status	Total	Male	Female	Total	Male	Female
Employed labour force 15 years and over (32)	5,340	2,915	2,420	5,713,900	3,027,620	2,686,285
Worked at home	225	50	170	406,230	202,530	203,700
Worked outside Canada	15	10	0	33,935	22,600	11,335
No fixed workplace address	515	425	95	466,950	352,800	114,145
Worked at usual place	4,590	2,435	2,155	4,806,790	2,449,685	2,357,100
	Ingersoll, Town			Ontario		
Mode of Transportation to Work	Total	Male	Female	Total	Male	Female
Total -All modes (33)	5,105	2,855	2,250	5,273,740	2,802,490	2,471,250
Car, truck, van, as driver	4,195	2,335	1,850	3,831,095	2,190,400	1,640,695
Car, truck, van, as passenger	395	230	170	372,460	149,805	222,655
Public transit	20	0	20	672,310	270,755	401,550
Walked or bicycled	430	245	185	349,020	166,930	182,095
Other method	65	40	25	48,855	24,595	24,265
	Ingersoll, Town			Ontario		
Unpaid Work	Total	Male	Female	Total	Male	Female
Persons reporting hours of unpaid work (34)	7,805	3,715	4,090	8,229,410	3,886,440	4,342,975
Persons reporting hours of unpaid housework (35)	7,725	3,655	4,075	8,112,435	3,812,780	4,299,655
Persons reporting hours looking after children, without pay (36)	3,485	1,535	1,945	3,448,335	1,515,125	1,933,210
Persons reporting hours of unpaid care or assistance to seniors (37)	1,655	650	1,005	1,641,305	676,295	965,015
	Ingersoll, Town			Ontario		
Labour Force Indicators	Total	Male	Female	Total	Male	Female
Participation rate (38)	68.5	76.5	60.8	67.3	73.4	61.5
Employment rate (39)	63.4	71.3	56.1	63.2	69.1	57.6

Unemployment rate (40)	7.4	6.9	8.0	6.1	5.8	6.5
Industry	Ingersoll, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Experienced labour force (41)	5,685	3,125	2,560	5,992,765	3,173,280	2,819,490
Agriculture and other resource-based industries	190	150	40	191,020	135,925	55,090
Manufacturing and construction industries	2,045	1,585	460	1,316,580	979,715	336,870
Wholesale and retail trade	795	395	400	950,730	484,505	466,230
Finance and real estate	345	80	265	401,445	171,350	230,095
Health and education	660	105	555	902,990	212,830	690,165
Business services	700	430	270	1,145,910	674,075	471,835
Other services	940	380	565	1,084,090	514,875	569,210
Occupation	Ingersoll, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Experienced labour force (41)	5,690	3,125	2,560	5,992,765	3,173,275	2,819,490
Management occupations	520	315	205	685,390	434,475	250,915
Business, finance and administration occupations	840	185	665	1,097,835	311,995	785,835
Natural and applied sciences and related occupations	210	155	60	422,510	326,940	95,570
Health occupations	205	25	180	286,305	58,840	227,460
Social science, education, government service and religion	200	55	145	455,825	150,560	305,270
Art, culture, recreation and sport	115	40	70	171,840	79,010	92,830
Sales and service occupations	1,305	435	870	1,371,250	590,350	780,900
Trades, transport and equipment operators and related occupations	1,155	1,065	90	845,130	778,735	66,390
Occupations unique to primary industry	155	120	35	164,365	122,555	41,805
Occupations unique to processing, manufacturing and utilities	985	735	245	492,320	319,815	172,505
Selected Family Characteristics	Ingersoll, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total number of families	3,200			3,190,990		
Number of married-couple families	2,360			2,406,340		
Average number of persons in married-couple families	3.2			3.2		
Number of common-law couple families (11)	335			298,540		
Average number of persons in	2.8			2.7		

common-law-couple families (11)						
Number of lone-parent families (12)	500			486,105		
Average number of persons in lone-parent families (12)	2.3			2.5		
Number of female lone-parent families (12)	375			401,240		
Average number of persons in female lone-parent families (12)	2.4			2.6		
Number of male lone-parent families (12)	130			84,860		
Average number of persons in male lone-parent families (12)	2.2			2.5		
Median family income, 2000 (\$) - All census families (51)	59,161			61,024		
Median family income, 2000 (\$) - Couple families (52)	63,498			66,476		
Median family income, 2000 (\$) - Lone-parent families	30,499			33,724		
Selected Household Characteristics	Ingersoll, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All private households	4,200			4,219,410		
Households containing a couple (married or common-law) with children (13)	1,445			1,376,975		
Households containing a couple (married or common-law) without children (14)	1,220			1,179,330		
One-person households	1,005			990,160		
Other household types (15)	530			672,950		
Median household income, 2000 (\$) - All households	51,152			53,626		
Median household income, 2000 (\$) - One-person households	23,254			25,253		
Median household income, 2000 (\$) - Two-or-more-persons households	61,527			64,201		
Number of rented dwellings (55)	1,045			1,346,990		
Average gross monthly payments for rented dwellings (\$)	579			753		
Number of owner-occupied dwellings (56)	3,150			2,816,220		
Average monthly payments for owner-occupied dwellings (\$)	814			964		
Selected Occupied Private Dwelling Characteristics	Ingersoll, Town			Ontario		
	Total	Male	Female	Total	Male	Female

Total number of dwellings (16)	4,200	4,219,415
Number of owned dwellings (17)	3,155	2,862,300
Number of rented dwellings (18)	1,045	1,351,365
Number of dwellings constructed before 1991	3,640	3,615,880
Number of dwellings constructed between 1991 and 2001	560	603,530
Average value of dwelling (\$)	135,958	199,884

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- Earnings and Income
- Education
- Families and Dwellings
- Health
- Population
- Work

Source:

<http://www12.statcan.ca/english/Profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=3531025&Geo2=PR&Code2=35&Data=Count&SearchText=Mitchell&SearchType=Begin&SearchPR=01&B1=Work&Custom=>

All Data	West Perth Ontario (Township)			Ontario (Province)		
	SELECT ANOTHER REGION			SELECT ANOTHER REGION		
	West Perth, Township			Ontario		
Population and Dwelling Counts	Total	Male	Female	Total	Male	Female
Population in 2001 (1)	9,129			11,410,046±		
Population in 1996 (2)	8,907A			10,753,573±		
1996 to 2001 population change (%)	2.5			6.1		
Total private dwellings	3,274			4,556,240		
Population density per square kilometre	15.8			12.6		
Land area (square km)	579.40			907,655.59		
Age Characteristics of the Population	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons (3)	9,130	4,580	4,545	11,410,050	5,577,055	5,832,990
Age 0-4	590	290	295	671,250	343,340	327,905

Age 5-14	1,505	775	730	1,561,500	801,355	760,145
Age 15-19	790	415	380	769,420	394,915	374,500
Age 20-24	555	295	255	718,420	359,645	358,775
Age 25-44	2,515	1,275	1,235	3,518,010	1,724,535	1,793,480
Age 45-54	1,195	625	570	1,635,280	801,540	833,740
Age 55-64	705	345	365	1,064,000	520,565	543,430
Age 65-74	675	325	350	818,165	383,625	434,545
Age 75-84	450	190	260	503,930	202,265	301,665
Age 85 and over	155	45	105	150,075	45,260	104,810
Median age of the population	35.7	35.0	36.5	37.2	36.4	38.0
% of the population ages 15 and over	77.1	76.6	77.5	80.4	79.5	81.3
Common-law Status	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Population 15 years and over (4)	7,040	3,515	3,525	9,177,300	4,432,360	4,744,935
Not in a common-law relationship	6,660	3,325	3,335	8,592,795	4,138,645	4,454,140
In a common-law relationship	380	190	190	584,505	293,715	290,790
Legal Marital Status	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Population 15 years and over (5)	7,040	3,515	3,525	9,177,300	4,432,365	4,744,935
Single (6)	1,900	1,105	800	2,793,080	1,490,270	1,302,805
Married (7)	4,195	2,095	2,100	4,897,095	2,450,975	2,446,125
Separated (8)	180	85	95	311,380	136,075	175,305
Divorced (9)	285	155	140	597,595	249,825	347,770
Widowed (10)	475	80	400	578,145	105,215	472,935
Language(s) First Learned and Still Understood	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons (19)	8,995	4,545	4,455	11,285,545	5,529,145	5,756,400
English only	8,430	4,230	4,205	7,965,225	3,913,300	4,051,925
French only	30	20	10	485,630	230,080	255,550
Both English and French	0	0	0	37,135	17,165	19,975
Other languages (20)	545	295	245	2,797,555	1,368,600	1,428,950
Mobility Status - Place of Residence 1 Year Ago	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total population 1 year and over (21)	8,865	4,480	4,385	11,156,120	5,462,480	5,693,640
Lived at the same address 1 year ago	7,990	4,025	3,965	9,610,125	4,696,350	4,913,765
Lived within the same province/territory 1 year ago, but	865	450	410	1,321,240	653,755	667,480

changed address						
Lived in a different province/territory or country 1 year ago	10	10	10	224,760	112,365	112,395
Mobility Status - Place of Residence 5 Years Ago	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total population 5 years and over (22)	8,400	4,220	4,180	10,609,755	5,183,200	5,426,555
Lived at the same address 5 years ago	5,655	2,855	2,805	6,067,755	2,951,790	3,115,965
Lived within the same province/territory 5 years ago, but changed address	2,675	1,340	1,335	3,784,170	1,855,225	1,928,945
Lived in a different province/territory or country 5 years ago	60	20	40	757,830	376,190	381,650
Immigration Characteristics	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons	8,995	4,545	4,455	11,285,545	5,529,145	5,756,400
Canadian-born population (23)	8,410	4,245	4,165	8,164,860	4,029,890	4,134,965
Foreign-born population (24)	585	295	290	3,030,075	1,453,510	1,576,565
Immigrated before 1991	505	265	245	2,007,705	964,585	1,043,120
Immigrated between 1991 and 2001 (25)	85	35	50	1,022,370	488,930	533,440
Non-permanent residents (26)	10	0	0	90,615	45,745	44,870
Aboriginal Population	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons	9,000	4,545	4,455	11,285,545	5,529,150	5,756,400
Aboriginal identity population (27)	60	40	20	188,315	91,140	97,180
Non-Aboriginal population	8,940	4,505	4,435	11,097,235	5,438,010	5,659,225
Visible Minority Status	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total population by visible minority groups	8,995	4,545	4,455	11,285,550	5,529,145	5,756,400
Visible minority population (31)	95	60	35	2,153,045	1,049,890	1,103,160
Chinese	0	0	0	481,510	234,925	246,585
South Asian	0	0	0	554,870	281,355	273,510
Black	55	40	15	411,090	193,110	217,980
Filipino	0	0	0	156,515	67,090	89,425
Latin American	10	0	10	106,835	51,965	54,870
Southeast Asian	10	10	0	86,410	42,655	43,750

Arab	0	0	0	88,545	47,385	41,155
West Asian	0	0	0	67,100	35,440	31,660
Korean	0	0	0	53,955	26,090	27,855
Japanese	0	0	0	24,925	11,840	13,085
Visible minority, n.i.e (28)	15	10	10	78,915	36,915	42,000
Multiple visible minorities (29)	10	0	0	42,375	21,110	21,265
All others (30)	8,900	4,485	4,420	9,132,500	4,479,255	4,653,245

Religion	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Religion	8,995	4,545	4,455	11,285,545	5,529,150	5,756,400
Catholic (57)	1,740	915	830	3,911,760	1,891,660	2,020,100
Protestant	6,255	3,065	3,190	3,935,745	1,841,175	2,094,565
Christian Orthodox	0	0	0	264,055	132,490	131,570
Christian, n.i.e. (58)	130	60	65	301,935	144,215	157,720
Muslim	0	0	0	352,525	181,935	170,595
Jewish	10	10	0	190,795	92,920	97,875
Buddhist	0	0	0	128,320	61,100	67,220
Hindu	0	0	0	217,560	109,580	107,975
Sikh	0	0	0	104,790	53,390	51,395
Eastern religions (59)	45	25	15	17,785	8,745	9,035
Other religions (60)	0	0	0	18,985	8,530	10,455
No religious affiliation (61)	815	470	350	1,841,290	1,003,405	837,885

School Attendance	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total population 15 years and over attending school full time	780	365	415	1,060,115	519,905	540,215
Age group 15-19 attending full time (50)	530	265	260	570,550	291,735	278,810
Age group 20-24 attending full time	190	75	110	312,470	148,215	164,255
Total population 15 years and over attending school part time	220	90	130	436,730	187,750	248,980
Age group 15-19 attending part time (50)	10	10	0	19,045	9,675	9,375
Age group 20-24 attending part time	45	40	0	57,580	29,190	28,390

Highest Level of Schooling	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total population aged 20-34	1,580	790	790	2,263,910	1,112,910	1,150,995
% of the population aged 20-34 with less than a high school graduation certificate	14.6	19.0	10.1	13.2	14.9	11.5
% of the population aged 20-34	34.5	36.7	32.3	33.7	36.1	31.5

with a high school graduation certificate and/or some postsecondary (46)						
% of the population aged 20-34 with a trades certificate or diploma	13.0	18.4	6.3	7.9	9.6	6.2
% of the population aged 20-34 with a college certificate or diploma (47)	23.1	16.5	30.4	19.5	16.5	22.4
% of the population aged 20-34 with a university certificate, diploma or degree	14.6	8.9	20.3	25.7	23.0	28.4
Total population aged 35-44	1,470	750	715	1,949,840	954,260	995,580
% of the population aged 35-44 with less than a high school graduation certificate	24.1	28.0	20.3	17.3	18.8	16.0
% of the population aged 35-44 with a high school graduation certificate and/or some postsecondary (46)	29.6	22.7	37.1	25.6	23.7	27.5
% of the population aged 35-44 with a trades certificate or diploma	13.3	18.0	8.4	11.5	15.0	8.2
% of the population aged 35-44 with a college certificate or diploma (47)	20.7	18.7	22.4	21.2	18.0	24.3
% of the population aged 35-44 with a university certificate, diploma or degree	12.2	12.0	12.6	24.3	24.6	24.1
Total population aged 45-64	1,915	1,015	900	2,684,705	1,311,380	1,373,325
% of the population aged 45-64 with less than a high school graduation certificate	35.8	41.4	28.9	27.5	26.5	28.4
% of the population aged 45-64 with a high school graduation certificate and/or some postsecondary (46)	24.5	19.2	30.6	22.9	19.9	25.7
% of the population aged 45-64 with a trades certificate or diploma	13.3	17.2	8.9	11.6	15.8	7.7
% of the population aged 45-64 with a college certificate or diploma (47)	17.0	10.8	24.4	16.6	13.8	19.2
% of the population aged 45-64 with a university certificate, diploma or degree	9.4	11.3	7.2	21.5	24.0	19.0
	West Perth, Township			Ontario		
Earnings in 2000	Total	Male	Female	Total	Male	Female
All persons with earnings (counts) (48)	5,295	2,905	2,385	6,319,535	3,311,105	3,008,425
Average earnings (all persons with	28,956	33,969	22,851	35,185	42,719	26,894

earnings (\$)						
Worked full year, full time (counts) (49)	3,195	1,970	1,220	3,527,045	2,061,355	1,465,690
Average earnings (worked full year, full time (\$))	38,654	41,982	33,295	47,299	53,937	37,962
	West Perth, Township			Ontario		
Income in 2000	Total	Male	Female	Total	Male	Female
Persons 15 years of age and over with income (53)	6,740			8,598,560		
Median total income of persons 15 years of age and over (\$) (54)	24,081			24,816		
Composition of total income (100%) (62)	100.0			100.0		
Earnings - % of income	78.4			78.7		
Government transfers - % of income	10.2			9.8		
Other money - % of income	11.4			11.5		
	West Perth, Township			Ontario		
Language Used Most Often at Work	Total	Male	Female	Total	Male	Female
Total - Population 15 years and over who worked since 2000 (44)	5,465	2,965	2,495	6,512,560	3,408,090	3,104,475
English	5,435	2,955	2,480	6,227,550	3,271,705	2,955,845
French	0	0	0	88,720	38,320	50,395
Non-official language	20	10	10	103,035	52,835	50,210
English and French	0	0	10	47,865	21,580	26,285
English and non-official language	10	0	0	43,500	22,760	20,745
French and non-official language	0	0	0	265	140	120
English, French and non-official language	0	0	0	1,625	750	870
	West Perth, Township			Ontario		
Place of Work Status	Total	Male	Female	Total	Male	Female
Employed labour force 15 years and over (32)	5,050	2,790	2,265	5,713,900	3,027,620	2,686,285
Worked at home	995	615	380	406,230	202,530	203,700
Worked outside Canada	15	15	0	33,935	22,600	11,335
No fixed workplace address	415	325	95	466,950	352,800	114,145
Worked at usual place	3,620	1,835	1,790	4,806,790	2,449,685	2,357,100
	West Perth, Township			Ontario		
Mode of Transportation to Work	Total	Male	Female	Total	Male	Female
Total -All modes (33)	4,040	2,155	1,885	5,273,740	2,802,490	2,471,250
Car, truck, van, as driver	3,160	1,635	1,520	3,831,095	2,190,400	1,640,695
Car, truck, van, as passenger	320	200	125	372,460	149,805	222,655

Public transit	0	0	0	672,310	270,755	401,550
Walked or bicycled	540	300	235	349,020	166,930	182,095
Other method	25	20	10	48,855	24,595	24,265
Unpaid Work	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Persons reporting hours of unpaid work (34)	6,425	3,155	3,270	8,229,410	3,886,440	4,342,975
Persons reporting hours of unpaid housework (35)	6,345	3,080	3,260	8,112,435	3,812,780	4,299,655
Persons reporting hours looking after children, without pay (36)	3,090	1,380	1,710	3,448,335	1,515,125	1,933,210
Persons reporting hours of unpaid care or assistance to seniors (37)	1,745	695	1,045	1,641,305	676,295	965,015
Labour Force Indicators	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Participation rate (38)	75.0	81.9	68.2	67.3	73.4	61.5
Employment rate (39)	73.1	80.3	66.0	63.2	69.1	57.6
Unemployment rate (40)	2.5	1.9	3.2	6.1	5.8	6.5
Industry	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Experienced labour force (41)	5,150	2,825	2,320	5,992,765	3,173,280	2,819,490
Agriculture and other resource-based industries	1,005	690	315	191,020	135,925	55,090
Manufacturing and construction industries	1,475	1,025	450	1,316,580	979,715	336,870
Wholesale and retail trade	640	370	270	950,730	484,505	466,230
Finance and real estate	230	80	145	401,445	171,350	230,095
Health and education	590	90	500	902,990	212,830	690,165
Business services	505	270	235	1,145,910	674,075	471,835
Other services	710	295	410	1,084,090	514,875	569,210
Occupation	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Experienced labour force (41)	5,150	2,825	2,320	5,992,765	3,173,275	2,819,490
Management occupations	355	240	115	685,390	434,475	250,915
Business, finance and administration occupations	635	115	525	1,097,835	311,995	785,835
Natural and applied sciences and related occupations	155	105	50	422,510	326,940	95,570
Health occupations	210	30	180	286,305	58,840	227,460
Social science, education,	230	55	180	455,825	150,560	305,270

government service and religion						
Art, culture, recreation and sport	80	15	60	171,840	79,010	92,830
Sales and service occupations	880	330	545	1,371,250	590,350	780,900
Trades, transport and equipment operators and related occupations	855	785	70	845,130	778,735	66,390
Occupations unique to primary industry	1,030	720	310	164,365	122,555	41,805
Occupations unique to processing, manufacturing and utilities	725	440	285	492,320	319,815	172,505

Selected Family Characteristics	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total number of families	2,525			3,190,990		
Number of married-couple families	2,055			2,406,340		
Average number of persons in married-couple families	3.4			3.2		
Number of common-law couple families (11)	180			298,540		
Average number of persons in common-law-couple families (11)	2.8			2.7		
Number of lone-parent families (12)	285			486,105		
Average number of persons in lone-parent families (12)	2.6			2.5		
Number of female lone-parent families (12)	225			401,240		
Average number of persons in female lone-parent families (12)	2.5			2.6		
Number of male lone-parent families (12)	60			84,860		
Average number of persons in male lone-parent families (12)	2.7			2.5		
Median family income, 2000 (\$) - All census families (51)	61,054			61,024		
Median family income, 2000 (\$) - Couple families (52)	65,286			66,476		
Median family income, 2000 (\$) - Lone-parent families	33,473			33,724		

Selected Household Characteristics	West Perth, Township			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All private households	3,155			4,219,410		
Households containing a couple (married or common-law) with children (13)	1,280			1,376,975		
Households containing a couple (married or common-law) without	925			1,179,330		

children (14)		
One-person households	620	990,160
Other household types (15)	335	672,950
Median household income, 2000 (\$) - All households	55,257	53,626
Median household income, 2000 (\$) - One-person households	20,706	25,253
Median household income, 2000 (\$) - Two-or-more-persons households	62,904	64,201
Number of rented dwellings (55)	620	1,346,990
Average gross monthly payments for rented dwellings (\$)	575	753
Number of owner-occupied dwellings (56)	2,060	2,816,220
Average monthly payments for owner-occupied dwellings (\$)	760	964
Selected Occupied Private Dwelling Characteristics	West Perth, Township	Ontario
	Total	Male
	Female	Total
		Male
		Female
Total number of dwellings (16)	3,155	4,219,415
Number of owned dwellings (17)	2,490	2,862,300
Number of rented dwellings (18)	665	1,351,365
Number of dwellings constructed before 1991	2,665	3,615,880
Number of dwellings constructed between 1991 and 2001	485	603,530
Average value of dwelling (\$)	163,026	199,884

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- Earnings and Income
- Education
- Families and Dwellings
- Health
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- Work

Source:

<http://www12.statcan.ca/english/Profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=3531016&Geo2=PR&Code2=35&Data=Count&SearchText=St.%20Marys&SearchType=Begins&SearchPR=01&B1=All&Custom=>

All Data	St. Marys Ontario (Town)			Ontario (Province)		
	SELECT ANOTHER REGION			SELECT ANOTHER REGION		
Population and Dwelling Counts	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Population in 2001 (1)	6,293			11,410,046±		
Population in 1996 (2)	5,952			10,753,573±		
1996 to 2001 population change (%)	5.7			6.1		
Total private dwellings	2,486			4,556,240		
Population density per square kilometre	504.3			12.6		
Land area (square km)	12.48			907,655.59		
Age Characteristics of the Population	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons (3)	6,290	3,030	3,265	11,410,050	5,577,055	5,832,990
Age 0-4	345	185	160	671,250	343,340	327,905
Age 5-14	915	490	430	1,561,500	801,355	760,145
Age 15-19	435	225	210	769,420	394,915	374,500
Age 20-24	330	180	155	718,420	359,645	358,775
Age 25-44	1,695	835	865	3,518,010	1,724,535	1,793,480
Age 45-54	840	400	445	1,635,280	801,540	833,740
Age 55-64	555	260	290	1,064,000	520,565	543,430
Age 65-74	510	230	280	818,165	383,625	434,545
Age 75-84	460	180	285	503,930	202,265	301,665
Age 85 and over	200	55	150	150,075	45,260	104,810
Median age of the population	39.3	37.2	41.2	37.2	36.4	38.0
% of the population ages 15 and over	79.9	77.9	81.9	80.4	79.5	81.3
Common-law Status	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Population 15 years and over (4)	5,030	2,355	2,675	9,177,300	4,432,360	4,744,935
Not in a common-law relationship	4,750	2,215	2,540	8,592,795	4,138,645	4,454,140
In a common-law relationship	280	145	135	584,505	293,715	290,790
Legal Marital Status	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female

Total - Population 15 years and over (5)	5,030	2,355	2,675	9,177,300	4,432,365	4,744,935
Single (6)	1,245	680	570	2,793,080	1,490,270	1,302,805
Married (7)	2,865	1,425	1,440	4,897,095	2,450,975	2,446,125
Separated (8)	135	50	90	311,380	136,075	175,305
Divorced (9)	275	110	165	597,595	249,825	347,770
Widowed (10)	515	90	415	578,145	105,215	472,935
Language(s) First Learned and Still Understood	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons (19)	6,075	2,960	3,115	11,285,545	5,529,145	5,756,400
English only	5,775	2,840	2,935	7,965,225	3,913,300	4,051,925
French only	15	10	10	485,630	230,080	255,550
Both English and French	0	0	0	37,135	17,165	19,975
Other languages (20)	285	115	165	2,797,555	1,368,600	1,428,950
Mobility Status - Place of Residence 1 Year Ago	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total population 1 year and over (21)	5,990	2,905	3,085	11,156,120	5,462,480	5,693,640
Lived at the same address 1 year ago	5,300	2,580	2,730	9,610,125	4,696,350	4,913,765
Lived within the same province/territory 1 year ago, but changed address	655	310	345	1,321,240	653,755	667,480
Lived in a different province/territory or country 1 year ago	40	20	20	224,760	112,365	112,395
Mobility Status - Place of Residence 5 Years Ago	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total population 5 years and over (22)	5,725	2,760	2,965	10,609,755	5,183,200	5,426,555
Lived at the same address 5 years ago	3,455	1,670	1,785	6,067,755	2,951,790	3,115,965
Lived within the same province/territory 5 years ago, but changed address	2,155	1,035	1,120	3,784,170	1,855,225	1,928,945
Lived in a different province/territory or country 5 years ago	110	55	60	757,830	376,190	381,650
Immigration Characteristics	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons	6,075	2,965	3,115	11,285,545	5,529,145	5,756,400

Canadian-born population (23)	5,605	2,765	2,845	8,164,860	4,029,890	4,134,965
Foreign-born population (24)	465	200	270	3,030,075	1,453,510	1,576,565
Immigrated before 1991	430	175	255	2,007,705	964,585	1,043,120
Immigrated between 1991 and 2001 (25)	35	25	10	1,022,370	488,930	533,440
Non-permanent residents (26)	0	0	0	90,615	45,745	44,870
Aboriginal Population	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons	6,075	2,960	3,110	11,285,545	5,529,150	5,756,400
Aboriginal identity population (27)	15	10	10	188,315	91,140	97,180
Non-Aboriginal population	6,060	2,955	3,105	11,097,235	5,438,010	5,659,225
Visible Minority Status	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total population by visible minority groups	6,075	2,960	3,110	11,285,550	5,529,145	5,756,400
Visible minority population (31)	75	40	35	2,153,045	1,049,890	1,103,160
Chinese	10	10	0	481,510	234,925	246,585
South Asian	0	0	10	554,870	281,355	273,510
Black	10	10	0	411,090	193,110	217,980
Filipino	0	0	0	156,515	67,090	89,425
Latin American	35	20	15	106,835	51,965	54,870
Southeast Asian	20	10	15	86,410	42,655	43,750
Arab	0	0	0	88,545	47,385	41,155
West Asian	0	0	0	67,100	35,440	31,660
Korean	0	0	0	53,955	26,090	27,855
Japanese	0	0	0	24,925	11,840	13,085
Visible minority, n.i.e (28)	0	0	0	78,915	36,915	42,000
Multiple visible minorities (29)	0	0	0	42,375	21,110	21,265
All others (30)	6,000	2,920	3,075	9,132,500	4,479,255	4,653,245
Religion	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Religion	6,075	2,965	3,110	11,285,545	5,529,150	5,756,400
Catholic (57)	995	475	515	3,911,760	1,891,660	2,020,100
Protestant	4,135	2,015	2,125	3,935,745	1,841,175	2,094,565
Christian Orthodox	15	0	0	264,055	132,490	131,570
Christian, n.i.e. (58)	145	85	55	301,935	144,215	157,720
Muslim	0	0	0	352,525	181,935	170,595
Jewish	10	0	10	190,795	92,920	97,875
Buddhist	15	0	10	128,320	61,100	67,220
Hindu	0	0	0	217,560	109,580	107,975
Sikh	0	0	0	104,790	53,390	51,395
Eastern religions (59)	15	10	10	17,785	8,745	9,035

Other religions (60)	10	0	0	18,985	8,530	10,455
No religious affiliation (61)	740	365	380	1,841,290	1,003,405	837,885
	St. Marys, Town			Ontario		
School Attendance	Total	Male	Female	Total	Male	Female
Total population 15 years and over attending school full time	415	235	185	1,060,115	519,905	540,215
Age group 15-19 attending full time (50)	280	155	130	570,550	291,735	278,810
Age group 20-24 attending full time	110	55	55	312,470	148,215	164,255
Total population 15 years and over attending school part time	200	95	110	436,730	187,750	248,980
Age group 15-19 attending part time (50)	15	0	10	19,045	9,675	9,375
Age group 20-24 attending part time	30	20	15	57,580	29,190	28,390
	St. Marys, Town			Ontario		
Highest Level of Schooling	Total	Male	Female	Total	Male	Female
Total population aged 20-34	1,035	555	480	2,263,910	1,112,910	1,150,995
% of the population aged 20-34 with less than a high school graduation certificate	16.4	19.8	12.5	13.2	14.9	11.5
% of the population aged 20-34 with a high school graduation certificate and/or some postsecondary (46)	37.7	41.4	33.3	33.7	36.1	31.5
% of the population aged 20-34 with a trades certificate or diploma	11.1	10.8	11.5	7.9	9.6	6.2
% of the population aged 20-34 with a college certificate or diploma (47)	20.8	16.2	26.0	19.5	16.5	22.4
% of the population aged 20-34 with a university certificate, diploma or degree	14.0	11.7	15.6	25.7	23.0	28.4
Total population aged 35-44	985	505	475	1,949,840	954,260	995,580
% of the population aged 35-44 with less than a high school graduation certificate	21.3	19.8	23.2	17.3	18.8	16.0
% of the population aged 35-44 with a high school graduation certificate and/or some postsecondary (46)	21.8	16.8	27.4	25.6	23.7	27.5
% of the population aged 35-44 with a trades certificate or diploma	14.7	20.8	7.4	11.5	15.0	8.2
% of the population aged 35-44 with a college certificate or	23.9	20.8	27.4	21.2	18.0	24.3

diploma (47)						
% of the population aged 35-44 with a university certificate, diploma or degree	18.8	21.8	16.8	24.3	24.6	24.1
Total population aged 45-64	1,385	590	790	2,684,705	1,311,380	1,373,325
% of the population aged 45-64 with less than a high school graduation certificate	31.0	30.5	31.0	27.5	26.5	28.4
% of the population aged 45-64 with a high school graduation certificate and/or some postsecondary (46)	23.8	16.1	29.1	22.9	19.9	25.7
% of the population aged 45-64 with a trades certificate or diploma	13.4	19.5	8.9	11.6	15.8	7.7
% of the population aged 45-64 with a college certificate or diploma (47)	19.5	17.8	20.9	16.6	13.8	19.2
% of the population aged 45-64 with a university certificate, diploma or degree	12.6	16.1	10.8	21.5	24.0	19.0
	St. Marys, Town			Ontario		
Earnings in 2000	Total	Male	Female	Total	Male	Female
All persons with earnings (counts) (48)	3,465	1,840	1,625	6,319,535	3,311,105	3,008,425
Average earnings (all persons with earnings (\$))	29,623	36,379	21,972	35,185	42,719	26,894
Worked full year, full time (counts) (49)	1,920	1,165	755	3,527,045	2,061,355	1,465,690
Average earnings (worked full year, full time (\$))	41,148	47,083	31,952	47,299	53,937	37,962
	St. Marys, Town			Ontario		
Income in 2000	Total	Male	Female	Total	Male	Female
Persons 15 years of age and over with income (53)	4,710			8,598,560		
Median total income of persons 15 years of age and over (\$) (54)	25,332			24,816		
Composition of total income (100%) (62)	100.0			100.0		
Earnings - % of income	74.3			78.7		
Government transfers - % of income	12.4			9.8		
Other money - % of income	13.5			11.5		
	St. Marys, Town			Ontario		
Language Used Most Often at Work	Total	Male	Female	Total	Male	Female

Total - Population 15 years and over who worked since 2000 (44)	3,505	1,845	1,660	6,512,560	3,408,090	3,104,475
English	3,505	1,850	1,655	6,227,550	3,271,705	2,955,845
French	0	0	0	88,720	38,320	50,395
Non-official language	0	0	0	103,035	52,835	50,210
English and French	0	0	0	47,865	21,580	26,285
English and non-official language	0	0	0	43,500	22,760	20,745
French and non-official language	0	0	0	265	140	120
English, French and non-official language	0	0	0	1,625	750	870
	St. Marys, Town			Ontario		
Place of Work Status	Total	Male	Female	Total	Male	Female
Employed labour force 15 years and over (32)	3,165	1,705	1,465	5,713,900	3,027,620	2,686,285
Worked at home	175	65	115	406,230	202,530	203,700
Worked outside Canada	10	0	0	33,935	22,600	11,335
No fixed workplace address	265	170	95	466,950	352,800	114,145
Worked at usual place	2,715	1,460	1,255	4,806,790	2,449,685	2,357,100
	St. Marys, Town			Ontario		
Mode of Transportation to Work	Total	Male	Female	Total	Male	Female
Total -All modes (33)	2,985	1,635	1,350	5,273,740	2,802,490	2,471,250
Car, truck, van, as driver	2,305	1,260	1,045	3,831,095	2,190,400	1,640,695
Car, truck, van, as passenger	210	115	90	372,460	149,805	222,655
Public transit	10	10	0	672,310	270,755	401,550
Walked or bicycled	450	235	210	349,020	166,930	182,095
Other method	15	15	0	48,855	24,595	24,265
	St. Marys, Town			Ontario		
Unpaid Work	Total	Male	Female	Total	Male	Female
Persons reporting hours of unpaid work (34)	4,450	2,115	2,335	8,229,410	3,886,440	4,342,975
Persons reporting hours of unpaid housework (35)	4,365	2,065	2,305	8,112,435	3,812,780	4,299,655
Persons reporting hours looking after children, without pay (36)	1,925	845	1,075	3,448,335	1,515,125	1,933,210
Persons reporting hours of unpaid care or assistance to seniors (37)	1,100	445	655	1,641,305	676,295	965,015
	St. Marys, Town			Ontario		
Labour Force Indicators	Total	Male	Female	Total	Male	Female
Participation rate (38)	67.9	76.3	60.5	67.3	73.4	61.5
Employment rate (39)	65.7	74.3	57.9	63.2	69.1	57.6
Unemployment rate (40)	3.2	2.6	4.3	6.1	5.8	6.5

Industry	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Experienced labour force (41)	3,270	1,750	1,525	5,992,765	3,173,280	2,819,490
Agriculture and other resource-based industries	80	65	15	191,020	135,925	55,090
Manufacturing and construction industries	1,100	810	285	1,316,580	979,715	336,870
Wholesale and retail trade	560	265	295	950,730	484,505	466,230
Finance and real estate	160	55	100	401,445	171,350	230,095
Health and education	475	110	365	902,990	212,830	690,165
Business services	400	245	155	1,145,910	674,075	471,835
Other services	495	195	305	1,084,090	514,875	569,210
Occupation	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Experienced labour force (41)	3,275	1,750	1,525	5,992,765	3,173,275	2,819,490
Management occupations	235	140	90	685,390	434,475	250,915
Business, finance and administration occupations	470	160	315	1,097,835	311,995	785,835
Natural and applied sciences and related occupations	85	55	30	422,510	326,940	95,570
Health occupations	150	25	135	286,305	58,840	227,460
Social science, education, government service and religion	230	80	150	455,825	150,560	305,270
Art, culture, recreation and sport	40	15	20	171,840	79,010	92,830
Sales and service occupations	760	245	515	1,371,250	590,350	780,900
Trades, transport and equipment operators and related occupations	650	585	60	845,130	778,735	66,390
Occupations unique to primary industry	90	75	10	164,365	122,555	41,805
Occupations unique to processing, manufacturing and utilities	565	375	195	492,320	319,815	172,505
Selected Family Characteristics	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total number of families	1,750			3,190,990		
Number of married-couple families	1,410			2,406,340		
Average number of persons in married-couple families	3.2			3.2		
Number of common-law couple families (11)	145			298,540		
Average number of persons in common-law-couple families (11)	2.7			2.7		

Number of lone-parent families (12)	190	486,105				
Average number of persons in lone-parent families (12)	2.4	2.5				
Number of female lone-parent families (12)	155	401,240				
Average number of persons in female lone-parent families (12)	2.3	2.6				
Number of male lone-parent families (12)	40	84,860				
Average number of persons in male lone-parent families (12)	2.6	2.5				
Median family income, 2000 (\$) - All census families (51)	63,551	61,024				
Median family income, 2000 (\$) - Couple families (52)	65,888	66,476				
Median family income, 2000 (\$) - Lone-parent families	36,287	33,724				
Selected Household Characteristics	St. Marys, Town		Ontario			
	Total	Male	Female	Total	Male	Female
Total - All private households	2,400			4,219,410		
Households containing a couple (married or common-law) with children (13)	790			1,376,975		
Households containing a couple (married or common-law) without children (14)	760			1,179,330		
One-person households	630			990,160		
Other household types (15)	220			672,950		
Median household income, 2000 (\$) - All households	53,766			53,626		
Median household income, 2000 (\$) - One-person households	16,494			25,253		
Median household income, 2000 (\$) - Two-or-more-persons households	64,078			64,201		
Number of rented dwellings (55)	505			1,346,990		
Average gross monthly payments for rented dwellings (\$)	649			753		
Number of owner-occupied dwellings (56)	1,890			2,816,220		
Average monthly payments for owner-occupied dwellings (\$)	798			964		
Selected Occupied Private Dwelling Characteristics	St. Marys, Town			Ontario		
	Total	Male	Female	Total	Male	Female
Total number of dwellings (16)	2,400			4,219,415		

Number of owned dwellings (17)	1,895	2,862,300
Number of rented dwellings (18)	505	1,351,365
Number of dwellings constructed before 1991	2,010	3,615,880
Number of dwellings constructed between 1991 and 2001	385	603,530
Average value of dwelling (\$)	151,048	199,884

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Source:

<http://www12.statcan.ca/english/Profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=3531011&Geo2=PR&Code2=35&Data=Count&SearchText=Stratford&SearchType=Begins&SearchPR=01&B1=All&Custom=>

All Data	Stratford Ontario (City)			Ontario (Province)		
	SELECT ANOTHER REGION			SELECT ANOTHER REGION		
	Stratford, City			Ontario		
Population and Dwelling Counts	Total	Male	Female	Total	Male	Female
Population in 2001 (1)	29,676			11,410,046±		
Population in 1996 (2)	29,007A			10,753,573±		
1996 to 2001 population change (%)	2.3			6.1		
Total private dwellings	12,642			4,556,240		
Population density per square kilometre	1,353.7			12.6		
Land area (square km)	21.92			907,655.59		
Age Characteristics of the Population	Stratford, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons (3)	29,675	14,230	15,450	11,410,050	5,577,055	5,832,990
Age 0-4	1,690	850	840	671,250	343,340	327,905
Age 5-14	3,830	1,970	1,860	1,561,500	801,355	760,145

Age 15-19	2,040	1,025	1,010	769,420	394,915	374,500
Age 20-24	1,885	965	915	718,420	359,645	358,775
Age 25-44	8,545	4,250	4,290	3,518,010	1,724,535	1,793,480
Age 45-54	4,290	2,015	2,270	1,635,280	801,540	833,740
Age 55-64	2,765	1,335	1,425	1,064,000	520,565	543,430
Age 65-74	2,195	960	1,240	818,165	383,625	434,545
Age 75-84	1,790	670	1,120	503,930	202,265	301,665
Age 85 and over	650	170	485	150,075	45,260	104,810
Median age of the population	38.5	36.9	40.1	37.2	36.4	38.0
% of the population ages 15 and over	81.4	80.1	82.5	80.4	79.5	81.3
	Stratford, City			Ontario		
Common-law Status	Total	Male	Female	Total	Male	Female
Total - Population 15 years and over (4)	24,155	11,405	12,750	9,177,300	4,432,360	4,744,935
Not in a common-law relationship	22,160	10,400	11,760	8,592,795	4,138,645	4,454,140
In a common-law relationship	2,000	1,005	990	584,505	293,715	290,790
	Stratford, City			Ontario		
Legal Marital Status	Total	Male	Female	Total	Male	Female
Total - Population 15 years and over (5)	24,160	11,405	12,755	9,177,300	4,432,365	4,744,935
Single (6)	7,085	3,835	3,250	2,793,080	1,490,270	1,302,805
Married (7)	12,165	6,085	6,080	4,897,095	2,450,975	2,446,125
Separated (8)	1,080	460	620	311,380	136,075	175,305
Divorced (9)	1,805	705	1,100	597,595	249,825	347,770
Widowed (10)	2,020	320	1,705	578,145	105,215	472,935
	Stratford, City			Ontario		
Language(s) First Learned and Still Understood	Total	Male	Female	Total	Male	Female
Total - All persons (19)	29,180	14,075	15,110	11,285,545	5,529,145	5,756,400
English only	26,585	12,770	13,820	7,965,225	3,913,300	4,051,925
French only	210	105	100	485,630	230,080	255,550
Both English and French	40	20	20	37,135	17,165	19,975
Other languages (20)	2,345	1,175	1,170	2,797,555	1,368,600	1,428,950
	Stratford, City			Ontario		
Mobility Status - Place of Residence 1 Year Ago	Total	Male	Female	Total	Male	Female
Total population 1 year and over (21)	28,830	13,910	14,920	11,156,120	5,462,480	5,693,640
Lived at the same address 1 year ago	24,965	12,050	12,925	9,610,125	4,696,350	4,913,765
Lived within the same province/territory 1 year ago, but changed address	3,560	1,685	1,875	1,321,240	653,755	667,480

Lived in a different province/territory or country 1 year ago	300	180	130	224,760	112,365	112,395
Mobility Status - Place of Residence 5 Years Ago	Stratford, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total population 5 years and over (22)	27,475	13,240	14,235	10,609,755	5,183,200	5,426,555
Lived at the same address 5 years ago	15,205	7,145	8,060	6,067,755	2,951,790	3,115,965
Lived within the same province/territory 5 years ago, but changed address	11,420	5,630	5,790	3,784,170	1,855,225	1,928,945
Lived in a different province/territory or country 5 years ago	850	465	385	757,830	376,190	381,650
Immigration Characteristics	Stratford, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons	29,180	14,075	15,105	11,285,545	5,529,145	5,756,400
Canadian-born population (23)	25,760	12,435	13,325	8,164,860	4,029,890	4,134,965
Foreign-born population (24)	3,270	1,555	1,710	3,030,075	1,453,510	1,576,565
Immigrated before 1991	2,750	1,315	1,440	2,007,705	964,585	1,043,120
Immigrated between 1991 and 2001 (25)	520	240	280	1,022,370	488,930	533,440
Non-permanent residents (26)	155	90	65	90,615	45,745	44,870
Aboriginal Population	Stratford, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons	29,180	14,075	15,110	11,285,545	5,529,150	5,756,400
Aboriginal identity population (27)	195	80	110	188,315	91,140	97,180
Non-Aboriginal population	28,990	13,990	15,000	11,097,235	5,438,010	5,659,225
Visible Minority Status	Stratford, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total population by visible minority groups	29,185	14,075	15,105	11,285,550	5,529,145	5,756,400
Visible minority population (31)	1,205	595	605	2,153,045	1,049,890	1,103,160
Chinese	215	105	110	481,510	234,925	246,585
South Asian	330	175	155	554,870	281,355	273,510
Black	230	115	115	411,090	193,110	217,980
Filipino	60	30	30	156,515	67,090	89,425
Latin American	135	65	70	106,835	51,965	54,870
Southeast Asian	145	65	80	86,410	42,655	43,750
Arab	15	10	10	88,545	47,385	41,155

West Asian	10	0	0	67,100	35,440	31,660
Korean	30	25	10	53,955	26,090	27,855
Japanese	15	0	10	24,925	11,840	13,085
Visible minority, n.i.e. (28)	0	0	0	78,915	36,915	42,000
Multiple visible minorities (29)	15	10	15	42,375	21,110	21,265
All others (30)	27,985	13,480	14,505	9,132,500	4,479,255	4,653,245
	Stratford, City			Ontario		
Religion	Total	Male	Female	Total	Male	Female
Total - Religion	29,180	14,075	15,110	11,285,545	5,529,150	5,756,400
Catholic (57)	6,650	3,220	3,435	3,911,760	1,891,660	2,020,100
Protestant	16,165	7,405	8,755	3,935,745	1,841,175	2,094,565
Christian Orthodox	225	125	95	264,055	132,490	131,570
Christian, n.i.e. (58)	605	285	325	301,935	144,215	157,720
Muslim	65	35	30	352,525	181,935	170,595
Jewish	85	45	45	190,795	92,920	97,875
Buddhist	90	45	45	128,320	61,100	67,220
Hindu	160	70	95	217,560	109,580	107,975
Sikh	115	65	55	104,790	53,390	51,395
Eastern religions (59)	155	85	75	17,785	8,745	9,035
Other religions (60)	80	30	45	18,985	8,530	10,455
No religious affiliation (61)	4,780	2,665	2,115	1,841,290	1,003,405	837,885
	Stratford, City			Ontario		
School Attendance	Total	Male	Female	Total	Male	Female
Total population 15 years and over attending school full time	2,005	975	1,030	1,060,115	519,905	540,215
Age group 15-19 attending full time (50)	1,305	655	650	570,550	291,735	278,810
Age group 20-24 attending full time	515	265	250	312,470	148,215	164,255
Total population 15 years and over attending school part time	1,115	575	545	436,730	187,750	248,980
Age group 15-19 attending part time (50)	85	60	25	19,045	9,675	9,375
Age group 20-24 attending part time	165	105	60	57,580	29,190	28,390
	Stratford, City			Ontario		
Highest Level of Schooling	Total	Male	Female	Total	Male	Female
Total population aged 20-34	5,675	2,975	2,700	2,263,910	1,112,910	1,150,995
% of the population aged 20-34 with less than a high school graduation certificate	17.5	17.6	17.6	13.2	14.9	11.5
% of the population aged 20-34 with a high school graduation	38.1	40.2	35.7	33.7	36.1	31.5

certificate and/or some postsecondary (46)						
% of the population aged 20-34 with a trades certificate or diploma	9.9	10.8	8.9	7.9	9.6	6.2
% of the population aged 20-34 with a college certificate or diploma (47)	18.5	16.8	20.4	19.5	16.5	22.4
% of the population aged 20-34 with a university certificate, diploma or degree	16.0	14.6	17.4	25.7	23.0	28.4
Total population aged 35-44	4,710	2,315	2,385	1,949,840	954,260	995,580
% of the population aged 35-44 with less than a high school graduation certificate	17.3	18.6	16.1	17.3	18.8	16.0
% of the population aged 35-44 with a high school graduation certificate and/or some postsecondary (46)	32.0	28.5	35.4	25.6	23.7	27.5
% of the population aged 35-44 with a trades certificate or diploma	13.1	17.1	9.2	11.5	15.0	8.2
% of the population aged 35-44 with a college certificate or diploma (47)	20.3	18.6	22.0	21.2	18.0	24.3
% of the population aged 35-44 with a university certificate, diploma or degree	17.3	17.3	17.2	24.3	24.6	24.1
Total population aged 45-64	7,005	3,305	3,700	2,684,705	1,311,380	1,373,325
% of the population aged 45-64 with less than a high school graduation certificate	29.3	28.9	29.7	27.5	26.5	28.4
% of the population aged 45-64 with a high school graduation certificate and/or some postsecondary (46)	23.6	21.0	25.9	22.9	19.9	25.7
% of the population aged 45-64 with a trades certificate or diploma	12.1	16.0	8.4	11.6	15.8	7.7
% of the population aged 45-64 with a college certificate or diploma (47)	19.2	15.4	22.7	16.6	13.8	19.2
% of the population aged 45-64 with a university certificate, diploma or degree	15.8	18.6	13.4	21.5	24.0	19.0
	Stratford, City			Ontario		
Earnings in 2000	Total	Male	Female	Total	Male	Female
All persons with earnings (counts)	17,130	8,910	8,220	6,319,535	3,311,105	3,008,425

(48)						
Average earnings (all persons with earnings (\$))	30,624	36,798	23,929	35,185	42,719	26,894
Worked full year, full time (counts) (49)	9,655	5,690	3,965	3,527,045	2,061,355	1,465,690
Average earnings (worked full year, full time (\$))	39,821	44,767	32,718	47,299	53,937	37,962
	Stratford, City			Ontario		
Income in 2000	Total	Male	Female	Total	Male	Female
Persons 15 years of age and over with income (53)	23,075			8,598,560		
Median total income of persons 15 years of age and over (\$) (54)	25,677			24,816		
Composition of total income (100%) (62)	100.0			100.0		
Earnings - % of income	75.4			78.7		
Government transfers - % of income	11.3			9.8		
Other money - % of income	13.3			11.5		
	Stratford, City			Ontario		
Language Used Most Often at Work	Total	Male	Female	Total	Male	Female
Total - Population 15 years and over who worked since 2000 (44)	17,450	9,040	8,410	6,512,560	3,408,090	3,104,475
English	17,405	9,025	8,375	6,227,550	3,271,705	2,955,845
French	15	0	10	88,720	38,320	50,395
Non-official language	25	0	15	103,035	52,835	50,210
English and French	0	0	0	47,865	21,580	26,285
English and non-official language	0	0	10	43,500	22,760	20,745
French and non-official language	0	0	0	265	140	120
English, French and non-official language	0	0	0	1,625	750	870
	Stratford, City			Ontario		
Place of Work Status	Total	Male	Female	Total	Male	Female
Employed labour force 15 years and over (32)	15,840	8,295	7,545	5,713,900	3,027,620	2,686,285
Worked at home	850	405	445	406,230	202,530	203,700
Worked outside Canada	60	45	15	33,935	22,600	11,335
No fixed workplace address	910	670	240	466,950	352,800	114,145
Worked at usual place	14,020	7,170	6,850	4,806,790	2,449,685	2,357,100
	Stratford, City			Ontario		
Mode of Transportation to Work	Total	Male	Female	Total	Male	Female
Total -All modes (33)	14,925	7,840	7,085	5,273,740	2,802,490	2,471,250

Car, truck, van, as driver	10,750	6,005	4,750	3,831,095	2,190,400	1,640,695
Car, truck, van, as passenger	1,385	555	835	372,460	149,805	222,655
Public transit	345	100	245	672,310	270,755	401,550
Walked or bicycled	2,200	1,065	1,140	349,020	166,930	182,095
Other method	235	115	125	48,855	24,595	24,265
	Stratford, City			Ontario		
Unpaid Work	Total	Male	Female	Total	Male	Female
Persons reporting hours of unpaid work (34)	21,915	10,240	11,665	8,229,410	3,886,440	4,342,975
Persons reporting hours of unpaid housework (35)	21,650	10,080	11,575	8,112,435	3,812,780	4,299,655
Persons reporting hours looking after children, without pay (36)	8,945	3,890	5,055	3,448,335	1,515,125	1,933,210
Persons reporting hours of unpaid care or assistance to seniors (37)	4,845	2,005	2,840	1,641,305	676,295	965,015
	Stratford, City			Ontario		
Labour Force Indicators	Total	Male	Female	Total	Male	Female
Participation rate (38)	70.3	76.9	64.4	67.3	73.4	61.5
Employment rate (39)	66.9	73.7	60.8	63.2	69.1	57.6
Unemployment rate (40)	4.8	4.0	5.7	6.1	5.8	6.5
	Stratford, City			Ontario		
Industry	Total	Male	Female	Total	Male	Female
Total - Experienced labour force (41)	16,455	8,555	7,905	5,992,765	3,173,280	2,819,490
Agriculture and other resource-based industries	250	175	70	191,020	135,925	55,090
Manufacturing and construction industries	5,685	3,895	1,790	1,316,580	979,715	336,870
Wholesale and retail trade	2,230	1,125	1,105	950,730	484,505	466,230
Finance and real estate	825	300	525	401,445	171,350	230,095
Health and education	2,505	520	1,985	902,990	212,830	690,165
Business services	1,750	1,130	615	1,145,910	674,075	471,835
Other services	3,215	1,400	1,810	1,084,090	514,875	569,210
	Stratford, City			Ontario		
Occupation	Total	Male	Female	Total	Male	Female
Total - Experienced labour force (41)	16,460	8,555	7,905	5,992,765	3,173,275	2,819,490
Management occupations	1,605	965	645	685,390	434,475	250,915
Business, finance and administration occupations	2,195	585	1,610	1,097,835	311,995	785,835
Natural and applied sciences and related occupations	715	605	115	422,510	326,940	95,570

Health occupations	865	150	715	286,305	58,840	227,460
Social science, education, government service and religion	965	255	710	455,825	150,560	305,270
Art, culture, recreation and sport	590	300	290	171,840	79,010	92,830
Sales and service occupations	3,930	1,650	2,280	1,371,250	590,350	780,900
Trades, transport and equipment operators and related occupations	2,450	2,170	285	845,130	778,735	66,390
Occupations unique to primary industry	265	205	65	164,365	122,555	41,805
Occupations unique to processing, manufacturing and utilities	2,865	1,675	1,195	492,320	319,815	172,505
	Stratford, City			Ontario		
Selected Family Characteristics	Total	Male	Female	Total	Male	Female
Total number of families	8,250			3,190,990		
Number of married-couple families	5,960			2,406,340		
Average number of persons in married-couple families	3.0			3.2		
Number of common-law couple families (11)	1,005			298,540		
Average number of persons in common-law-couple families (11)	2.8			2.7		
Number of lone-parent families (12)	1,290			486,105		
Average number of persons in lone-parent families (12)	2.6			2.5		
Number of female lone-parent families (12)	1,085			401,240		
Average number of persons in female lone-parent families (12)	2.6			2.6		
Number of male lone-parent families (12)	200			84,860		
Average number of persons in male lone-parent families (12)	2.4			2.5		
Median family income, 2000 (\$) - All census families (51)	59,033			61,024		
Median family income, 2000 (\$) - Couple families (52)	65,184			66,476		
Median family income, 2000 (\$) - Lone-parent families	36,436			33,724		
	Stratford, City			Ontario		
Selected Household Characteristics	Total	Male	Female	Total	Male	Female
Total - All private households	12,240			4,219,410		
Households containing a couple (married or common-law) with children (13)	3,455			1,376,975		

Households containing a couple (married or common-law) without children (14)	3,450		1,179,330			
One-person households	3,680		990,160			
Other household types (15)	1,655		672,950			
Median household income, 2000 (\$) - All households	47,938		53,626			
Median household income, 2000 (\$) - One-person households	25,221		25,253			
Median household income, 2000 (\$) - Two-or-more-persons households	59,946		64,201			
Number of rented dwellings (55)	4,165		1,346,990			
Average gross monthly payments for rented dwellings (\$)	650		753			
Number of owner-occupied dwellings (56)	8,075		2,816,220			
Average monthly payments for owner-occupied dwellings (\$)	801		964			
Selected Occupied Private Dwelling Characteristics	Stratford, City		Ontario			
	Total	Male	Female	Total	Male	Female
Total number of dwellings (16)	12,240			4,219,415		
Number of owned dwellings (17)	8,075			2,862,300		
Number of rented dwellings (18)	4,165			1,351,365		
Number of dwellings constructed before 1991	10,985			3,615,880		
Number of dwellings constructed between 1991 and 2001	1,260			603,530		
Average value of dwelling (\$)	160,527			199,884		

Stats on from this document

- Earnings and Income
- Education
- Families and Dwellings
- Health
- Population
- Work

Source:

<http://www12.statcan.ca/english/Profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=3532042&Geo2=PR&Code2=35&Data=Count&SearchText=Woodstock&SearchType=Begins&SearchPR=01&B1=All&Custom=>

All Data	Woodstock Ontario (City)			Ontario (Province)		
	SELECT ANOTHER REGION			SELECT ANOTHER REGION		
	Woodstock, City			Ontario		
Population and Dwelling Counts	Total	Male	Female	Total	Male	Female
Population in 2001 (1)	33,061			11,410,046±		
Population in 1996 (2)	32,253A			10,753,573±		
1996 to 2001 population change (%)	2.5			6.1		
Total private dwellings	13,743			4,556,240		
Population density per square kilometre	1,086.0			12.6		
Land area (square km)	30.44			907,655.59		
Age Characteristics of the Population	Woodstock, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons (3)	33,060	15,985	17,075	11,410,050	5,577,055	5,832,990
Age 0-4	2,090	1,085	1,000	671,250	343,340	327,905
Age 5-14	4,420	2,280	2,140	1,561,500	801,355	760,145
Age 15-19	2,275	1,135	1,140	769,420	394,915	374,500
Age 20-24	1,950	975	975	718,420	359,645	358,775
Age 25-44	9,785	4,830	4,955	3,518,010	1,724,535	1,793,480
Age 45-54	4,405	2,200	2,205	1,635,280	801,540	833,740
Age 55-64	2,930	1,430	1,505	1,064,000	520,565	543,430
Age 65-74	2,555	1,130	1,420	818,165	383,625	434,545
Age 75-84	1,955	730	1,220	503,930	202,265	301,665
Age 85 and over	695	185	510	150,075	45,260	104,810
Median age of the population	37.6	36.1	39.1	37.2	36.4	38.0
% of the population ages 15 and over	80.3	78.9	81.6	80.4	79.5	81.3
Common-law Status	Woodstock, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Population 15 years and over (4)	26,555	12,620	13,935	9,177,300	4,432,360	4,744,935
Not in a common-law relationship	24,405	11,550	12,860	8,592,795	4,138,645	4,454,140
In a common-law relationship	2,145	1,070	1,075	584,505	293,715	290,790
Legal Marital Status	Woodstock, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Population 15 years and	26,555	12,620	13,935	9,177,300	4,432,365	4,744,935

over (5)						
Single (6)	7,030	3,830	3,205	2,793,080	1,490,270	1,302,805
Married (7)	13,940	6,970	6,965	4,897,095	2,450,975	2,446,125
Separated (8)	1,130	505	620	311,380	136,075	175,305
Divorced (9)	2,235	945	1,285	597,595	249,825	347,770
Widowed (10)	2,220	370	1,850	578,145	105,215	472,935
Language(s) First Learned and Still Understood	Woodstock, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons (19)	32,405	15,760	16,645	11,285,545	5,529,145	5,756,400
English only	28,715	13,940	14,775	7,965,225	3,913,300	4,051,925
French only	460	235	230	485,630	230,080	255,550
Both English and French	20	10	10	37,135	17,165	19,975
Other languages (20)	3,200	1,575	1,625	2,797,555	1,368,600	1,428,950
Mobility Status - Place of Residence 1 Year Ago	Woodstock, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total population 1 year and over (21)	32,005	15,550	16,460	11,156,120	5,462,480	5,693,640
Lived at the same address 1 year ago	27,465	13,365	14,100	9,610,125	4,696,350	4,913,765
Lived within the same province/territory 1 year ago, but changed address	4,360	2,105	2,265	1,321,240	653,755	667,480
Lived in a different province/territory or country 1 year ago	180	80	100	224,760	112,365	112,395
Mobility Status - Place of Residence 5 Years Ago	Woodstock, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total population 5 years and over (22)	30,375	14,705	15,665	10,609,755	5,183,200	5,426,555
Lived at the same address 5 years ago	16,910	8,060	8,850	6,067,755	2,951,790	3,115,965
Lived within the same province/territory 5 years ago, but changed address	12,875	6,370	6,505	3,784,170	1,855,225	1,928,945
Lived in a different province/territory or country 5 years ago	585	280	310	757,830	376,190	381,650
Immigration Characteristics	Woodstock, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All persons	32,405	15,760	16,645	11,285,545	5,529,145	5,756,400
Canadian-born population (23)	28,640	13,990	14,655	8,164,860	4,029,890	4,134,965
Foreign-born population (24)	3,700	1,735	1,960	3,030,075	1,453,510	1,576,565

Immigrated before 1991	3,420	1,630	1,790	2,007,705	964,585	1,043,120
Immigrated between 1991 and 2001 (25)	275	105	170	1,022,370	488,930	533,440
Non-permanent residents (26)	65	30	30	90,615	45,745	44,870
	Woodstock, City			Ontario		
Aboriginal Population	Total	Male	Female	Total	Male	Female
Total - All persons	32,405	15,760	16,645	11,285,545	5,529,150	5,756,400
Aboriginal identity population (27)	195	90	100	188,315	91,140	97,180
Non-Aboriginal population	32,215	15,665	16,545	11,097,235	5,438,010	5,659,225
	Woodstock, City			Ontario		
Visible Minority Status	Total	Male	Female	Total	Male	Female
Total population by visible minority groups	32,405	15,760	16,645	11,285,550	5,529,145	5,756,400
Visible minority population (31)	1,095	605	490	2,153,045	1,049,890	1,103,160
Chinese	105	60	45	481,510	234,925	246,585
South Asian	170	105	60	554,870	281,355	273,510
Black	300	180	115	411,090	193,110	217,980
Filipino	50	15	45	156,515	67,090	89,425
Latin American	80	50	25	106,835	51,965	54,870
Southeast Asian	200	105	95	86,410	42,655	43,750
Arab	85	35	50	88,545	47,385	41,155
West Asian	0	0	0	67,100	35,440	31,660
Korean	15	0	0	53,955	26,090	27,855
Japanese	55	35	20	24,925	11,840	13,085
Visible minority, n.i.e (28)	0	10	0	78,915	36,915	42,000
Multiple visible minorities (29)	35	15	20	42,375	21,110	21,265
All others (30)	31,305	15,155	16,150	9,132,500	4,479,255	4,653,245
	Woodstock, City			Ontario		
Religion	Total	Male	Female	Total	Male	Female
Total - Religion	32,405	15,760	16,645	11,285,545	5,529,150	5,756,400
Catholic (57)	7,625	3,715	3,910	3,911,760	1,891,660	2,020,100
Protestant	17,300	8,085	9,210	3,935,745	1,841,175	2,094,565
Christian Orthodox	245	125	120	264,055	132,490	131,570
Christian, n.i.e. (58)	625	305	320	301,935	144,215	157,720
Muslim	75	30	50	352,525	181,935	170,595
Jewish	75	40	40	190,795	92,920	97,875
Buddhist	155	80	75	128,320	61,100	67,220
Hindu	65	25	35	217,560	109,580	107,975
Sikh	40	35	10	104,790	53,390	51,395
Eastern religions (59)	30	15	20	17,785	8,745	9,035
Other religions (60)	15	0	10	18,985	8,530	10,455
No religious affiliation (61)	6,150	3,310	2,845	1,841,290	1,003,405	837,885

School Attendance	Woodstock, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total population 15 years and over attending school full time	2,430	1,205	1,220	1,060,115	519,905	540,215
Age group 15-19 attending full time (50)	1,565	820	745	570,550	291,735	278,810
Age group 20-24 attending full time	530	235	295	312,470	148,215	164,255
Total population 15 years and over attending school part time	915	425	490	436,730	187,750	248,980
Age group 15-19 attending part time (50)	95	55	40	19,045	9,675	9,375
Age group 20-24 attending part time	80	35	45	57,580	29,190	28,390
Highest Level of Schooling	Woodstock, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total population aged 20-34	6,170	3,125	3,050	2,263,910	1,112,910	1,150,995
% of the population aged 20-34 with less than a high school graduation certificate	20.0	22.6	17.4	13.2	14.9	11.5
% of the population aged 20-34 with a high school graduation certificate and/or some postsecondary (46)	39.3	44.8	33.8	33.7	36.1	31.5
% of the population aged 20-34 with a trades certificate or diploma	10.1	10.7	9.5	7.9	9.6	6.2
% of the population aged 20-34 with a college certificate or diploma (47)	19.6	11.4	28.2	19.5	16.5	22.4
% of the population aged 20-34 with a university certificate, diploma or degree	10.9	10.6	11.3	25.7	23.0	28.4
Total population aged 35-44	5,395	2,510	2,890	1,949,840	954,260	995,580
% of the population aged 35-44 with less than a high school graduation certificate	24.1	27.3	21.5	17.3	18.8	16.0
% of the population aged 35-44 with a high school graduation certificate and/or some postsecondary (46)	30.9	30.5	31.1	25.6	23.7	27.5
% of the population aged 35-44 with a trades certificate or diploma	13.4	17.3	10.0	11.5	15.0	8.2
% of the population aged 35-44 with a college certificate or	20.9	15.9	25.3	21.2	18.0	24.3

diploma (47)						
% of the population aged 35-44 with a university certificate, diploma or degree	10.8	9.0	12.5	24.3	24.6	24.1
Total population aged 45-64	7,350	3,630	3,720	2,684,705	1,311,380	1,373,325
% of the population aged 45-64 with less than a high school graduation certificate	33.5	33.3	33.6	27.5	26.5	28.4
% of the population aged 45-64 with a high school graduation certificate and/or some postsecondary (46)	25.0	22.2	28.0	22.9	19.9	25.7
% of the population aged 45-64 with a trades certificate or diploma	14.2	18.2	10.3	11.6	15.8	7.7
% of the population aged 45-64 with a college certificate or diploma (47)	15.2	13.2	17.2	16.6	13.8	19.2
% of the population aged 45-64 with a university certificate, diploma or degree	12.0	12.8	11.2	21.5	24.0	19.0
	Woodstock, City			Ontario		
Earnings in 2000	Total	Male	Female	Total	Male	Female
All persons with earnings (counts) (48)	17,675	9,325	8,355	6,319,535	3,311,105	3,008,425
Average earnings (all persons with earnings (\$))	30,753	37,242	23,511	35,185	42,719	26,894
Worked full year, full time (counts) (49)	9,740	5,995	3,750	3,527,045	2,061,355	1,465,690
Average earnings (worked full year, full time (\$))	41,975	46,671	34,458	47,299	53,937	37,962
	Woodstock, City			Ontario		
Income in 2000	Total	Male	Female	Total	Male	Female
Persons 15 years of age and over with income (53)	24,975			8,598,560		
Median total income of persons 15 years of age and over (\$) (54)	23,854			24,816		
Composition of total income (100%) (62)	100.0			100.0		
Earnings - % of income	74.6			78.7		
Government transfers - % of income	13.0			9.8		
Other money - % of income	12.4			11.5		
	Woodstock, City			Ontario		
Language Used Most Often at Work	Total	Male	Female	Total	Male	Female

Total - Population 15 years and over who worked since 2000 (44)	18,175	9,535	8,635	6,512,560	3,408,090	3,104,475
English	18,035	9,505	8,535	6,227,550	3,271,705	2,955,845
French	45	0	45	88,720	38,320	50,395
Non-official language	20	10	10	103,035	52,835	50,210
English and French	0	0	10	47,865	21,580	26,285
English and non-official language	55	15	40	43,500	22,760	20,745
French and non-official language	0	0	0	265	140	120
English, French and non-official language	0	0	0	1,625	750	870
	Woodstock, City			Ontario		
Place of Work Status	Total	Male	Female	Total	Male	Female
Employed labour force 15 years and over (32)	15,965	8,470	7,495	5,713,900	3,027,620	2,686,285
Worked at home	725	290	430	406,230	202,530	203,700
Worked outside Canada	40	35	0	33,935	22,600	11,335
No fixed workplace address	1,140	805	330	466,950	352,800	114,145
Worked at usual place	14,060	7,335	6,725	4,806,790	2,449,685	2,357,100
	Woodstock, City			Ontario		
Mode of Transportation to Work	Total	Male	Female	Total	Male	Female
Total -All modes (33)	15,200	8,140	7,060	5,273,740	2,802,490	2,471,250
Car, truck, van, as driver	12,180	6,630	5,550	3,831,095	2,190,400	1,640,695
Car, truck, van, as passenger	1,320	670	655	372,460	149,805	222,655
Public transit	165	35	135	672,310	270,755	401,550
Walked or bicycled	1,320	700	625	349,020	166,930	182,095
Other method	210	110	100	48,855	24,595	24,265
	Woodstock, City			Ontario		
Unpaid Work	Total	Male	Female	Total	Male	Female
Persons reporting hours of unpaid work (34)	24,035	11,280	12,760	8,229,410	3,886,440	4,342,975
Persons reporting hours of unpaid housework (35)	23,745	11,090	12,660	8,112,435	3,812,780	4,299,655
Persons reporting hours looking after children, without pay (36)	10,245	4,520	5,730	3,448,335	1,515,125	1,933,210
Persons reporting hours of unpaid care or assistance to seniors (37)	4,680	1,790	2,885	1,641,305	676,295	965,015
	Woodstock, City			Ontario		
Labour Force Indicators	Total	Male	Female	Total	Male	Female
Participation rate (38)	66.3	73.4	59.7	67.3	73.4	61.5
Employment rate (39)	61.6	68.1	55.5	63.2	69.1	57.6
Unemployment rate (40)	7.1	7.2	7.1	6.1	5.8	6.5

Industry	Woodstock, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Experienced labour force (41)	16,855	8,940	7,915	5,992,765	3,173,280	2,819,490
Agriculture and other resource-based industries	430	275	155	191,020	135,925	55,090
Manufacturing and construction industries	5,440	4,210	1,225	1,316,580	979,715	336,870
Wholesale and retail trade	2,580	1,150	1,425	950,730	484,505	466,230
Finance and real estate	770	295	475	401,445	171,350	230,095
Health and education	2,645	480	2,165	902,990	212,830	690,165
Business services	2,205	1,365	840	1,145,910	674,075	471,835
Other services	2,785	1,160	1,630	1,084,090	514,875	569,210
Occupation	Woodstock, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - Experienced labour force (41)	16,855	8,945	7,910	5,992,765	3,173,275	2,819,490
Management occupations	1,640	1,025	620	685,390	434,475	250,915
Business, finance and administration occupations	2,345	550	1,790	1,097,835	311,995	785,835
Natural and applied sciences and related occupations	515	425	85	422,510	326,940	95,570
Health occupations	890	165	725	286,305	58,840	227,460
Social science, education, government service and religion	1,005	270	740	455,825	150,560	305,270
Art, culture, recreation and sport	290	120	170	171,840	79,010	92,830
Sales and service occupations	4,040	1,430	2,615	1,371,250	590,350	780,900
Trades, transport and equipment operators and related occupations	3,250	2,890	355	845,130	778,735	66,390
Occupations unique to primary industry	305	215	90	164,365	122,555	41,805
Occupations unique to processing, manufacturing and utilities	2,570	1,845	720	492,320	319,815	172,505
Selected Family Characteristics	Woodstock, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total number of families	9,470			3,190,990		
Number of married-couple families	6,885			2,406,340		
Average number of persons in married-couple families	3.1			3.2		
Number of common-law couple families (11)	1,070			298,540		
Average number of persons in common-law-couple families (11)	2.8			2.7		

Number of lone-parent families (12)	1,510			486,105		
Average number of persons in lone-parent families (12)	2.4			2.5		
Number of female lone-parent families (12)	1,280			401,240		
Average number of persons in female lone-parent families (12)	2.4			2.6		
Number of male lone-parent families (12)	235			84,860		
Average number of persons in male lone-parent families (12)	2.3			2.5		
Median family income, 2000 (\$) - All census families (51)	58,521			61,024		
Median family income, 2000 (\$) - Couple families (52)	63,731			66,476		
Median family income, 2000 (\$) - Lone-parent families	31,602			33,724		
Selected Household Characteristics	Woodstock, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total - All private households	13,195			4,219,410		
Households containing a couple (married or common-law) with children (13)	3,930			1,376,975		
Households containing a couple (married or common-law) without children (14)	3,880			1,179,330		
One-person households	3,485			990,160		
Other household types (15)	1,900			672,950		
Median household income, 2000 (\$) - All households	47,446			53,626		
Median household income, 2000 (\$) - One-person households	21,461			25,253		
Median household income, 2000 (\$) - Two-or-more-persons households	59,322			64,201		
Number of rented dwellings (55)	4,450			1,346,990		
Average gross monthly payments for rented dwellings (\$)	638			753		
Number of owner-occupied dwellings (56)	8,730			2,816,220		
Average monthly payments for owner-occupied dwellings (\$)	783			964		
Selected Occupied Private Dwelling Characteristics	Woodstock, City			Ontario		
	Total	Male	Female	Total	Male	Female
Total number of dwellings (16)	13,195			4,219,415		

Number of owned dwellings (17)	8,740	2,862,300
Number of rented dwellings (18)	4,455	1,351,365
Number of dwellings constructed before 1991	11,340	3,615,880
Number of dwellings constructed between 1991 and 2001	1,855	603,530
Average value of dwelling (\$)	137,224	199,884

APPENDIX D. PREVIOUS REPORTS IN THE SERIES

ISSN: (print) 1913-3200; (online) 1913-3219

- [1] Slobodan P. Simonovic (2001). Assessment of the impact of climate variability and change on the reliability, resiliency and vulnerability of complex flood protection systems, Water Resources Research Report no. 038, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 91 pages. ISBN: (print) 978-0-7714-2606-3; (online) 978-0-7714-2607-0.
- [2] Predrag Prodanovic (2001). Fuzzy set ranking methods and multiple expert decision making, Water Resources Research Report no. 039, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 68 pages. ISBN: (print) 978-0-7714-2608-7; (online) 978-0-7714-2609-4.
- [3] Nirupama and Slobodan P. Simonovic (2002). Role of remote sensing in disaster management, Water Resources Research Report no. 040, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 107 pages. ISBN: (print) 978-0-7714-2610-0; (online) 978-0-7714-2611-7.
- [4] Taslima Akter and Slobodan P. Simonovic (2002). A general overview of multi-objective multiple-participant decision making for flood management, Water Resources Research Report no. 041, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario,

- Canada, 65 pages. ISBN: (print) 978-0-7714-2612-4; (online) 978-0-7714-2613-1.
- [5] Nirupama and Slobodan P. Simonovic (2002). A spatial fuzzy compromise approach for flood disaster management, Water Resources Research Report no. 042, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 138 pages. ISBN: (print) 978-0-7714-2614-8; (online) 978-0-7714-2615-5.
- [6] K. D. W. Nandalal and Slobodan P. Simonovic (2002). State-of-the-Art Report on Systems Analysis Methods for Resolution of Conflicts in Water Resources Management, Water Resources Research Report no. 043, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 216 pages. ISBN: (print) 978-0-7714-2616-2; (online) 978-0-7714-2617-9.
- [7] K. D. W. Nandalal and Slobodan P. Simonovic (2003). Conflict Resolution Support System - A Software for the Resolution of Conflicts in Water Resource Management, Water Resources Research Report no. 044, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 144 pages. ISBN: (print) 978-0-7714-2618-6; (online) 978-0-7714-2619-3.
- [8] Ibrahim El-Baroudy and Slobodan P. Simonovic (2003). New Fuzzy Performance Indices for Reliability Analysis of Water Supply Systems, Water Resources Research Report no. 045, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario,

- Canada, 90 pages. ISBN: (print) 978-0-7714-2620-9; (online) 978-0-7714-2621-6.
- [9] Juraj Cunderlik (2003). Hydrologic Model Selection for the CFCAS Project: Assessment of Water Resources Risk and Vulnerability to Changing Climatic Conditions. Water Resources Research Report no. 046, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 40 pages. ISBN: (print) 978-0-7714-2622-3; (online) 978-0-7714-2623-0.
- [10] Juraj Cunderlik and Slobodan P. Simonovic (2004). Selection of Calibration and Verification Data for the HEC-HMS Hydrologic Model. Water Resources Research Report no. 047, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 29 pages. ISBN: (print) 978-0-7714-2624-7; (online) 978-0-7714-2625-4.
- [11] Juraj Cunderlik and Slobodan P. Simonovic (2004). Calibration, verification and sensitivity analysis of the HEC-HMS hydrologic model. Water Resources Research Report no. 048, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 113 pages. ISBN: (print) 978-0-7714-2626-1; (online) 978-0-7714-2627-8.
- [12] Predrag Prodanovic and Slobodan P. Simonovic (2004). Generation of synthetic design storms for the Upper Thames River basin. Water Resources Research Report no. 049, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 20 pages. ISBN: (print) 978-0-7714-2628-5; (online) 978-0-7714-2629-2.

- [13] Ibrahim El-Baroudy and Slobodan P. Simonovic (2005). Application of the Fuzzy Performance Indices to the City of London Water Supply system, Water Resources Research Report no. 050, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 137 pages. ISBN: (print) 978-0-7714-2630-8; (online) 978-0-7714-2631-5.
- [14] Ibrahim El-Baroudy and Slobodan P. Simonovic (2006). A Decision Support System for Integrated Risk Management, Water Resources Research Report no. 051, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 146 pages. ISBN: (print) 978-0-7714-2632-2; (online) 978-0-7714-2633-9.
- [15] Predrag Prodanovic and Slobodan P. Simonovic (2006). Inverse Flood Risk Modelling of The Upper Thames River Basin. Water Resources Research Report no. 052, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 163 pages. ISBN: (print) 978-0-7714-2634-6; (online) 978-0-7714-2635-3.
- [16] Predrag Prodanovic and Slobodan P. Simonovic (2006). Inverse Drought Risk Modelling of The Upper Thames River Basin. Water Resources Research Report no. 053, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 252 pages. ISBN: (print) 978-0-7714-2636-0; (online) 978-0-7714-2637-7.
- [17] Predrag Prodanovic and Slobodan P. Simonovic (2007). Dynamic Feedback Coupling of Continuous Hydrologic and Socio-Economic Model Components of the Upper Thames River Basin. Water Resources Research Report no. 054, Facility

- for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 437 pages. ISBN: (print) 978-0-7714-2638-4; (online) 978-0-7714-2639-1.
- [18] Subhankar Karmakar and Slobodan P. Simonovic (2007). Flood frequency analysis using copula with mixed marginal distributions. Water Resources Research Report no. 055, Facility for Intelligent Decision Support, Department of Civil and Environmental Engineering, London, Ontario, Canada, 144 pages. ISBN: (print) 978-0-7714-2658-2; (online) 978-0-7714-2659-9.