

DEVELOPMENT CHARGES BACKGROUND STUDY

County of Oxford

HEMSON Consulting Ltd.

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EXECUTIVE SUMMARY

Hemson Consulting Ltd. was retained by the County of Oxford to complete a Development Charges (DC) Background Study. This Background Study provides the basis and background required to update the County's development charges to accurately reflect the future servicing needs of new development.

STUDY CONSISTENT WITH DEVELOPMENT CHARGES LEGISLATION

- This study calculates development charges for the County of Oxford in compliance with the provisions of the *Development Charges Act, 1997 (DCA)* and its associated regulation *O. Reg. 82/98*.
- The County of Oxford's existing development charges by-laws:

5077-2009	County-Wide
5078-2009	Woodstock Water & Wastewater
5079-2009	Tillsonburg Water & Wastewater
5080-2009	Ingersoll Water & Wastewater
5081-2009	Thamesford Water & Wastewater
5082-2009	Norwich Water & Wastewater
5083-2009	Tavistock Water & Wastewater
5084-2009	Plattsville Water & Wastewater
5085-2009	Drumbo Water & Wastewater

- The County must continue implementing development charges to help fund capital projects related to development throughout Oxford so that development continues to be serviced in a fiscally responsible manner. The calculated changes to the development charges rates are required in order to reflect the revised costs associated with new infrastructure requirements.
- The *DCA* and *O. Reg. 82/98* require that a development charges background study be prepared in which development charges are determined with reference to:

- A forecast of the amount, type and location of residential and non-residential development anticipated in the County;
 - The average capital service levels provided in the County over the ten year period immediately preceding the preparation of the background study;
 - A review of future capital projects, including an analysis of gross expenditures, funding sources, and net expenditures incurred or to be incurred by the County to provide for the expected development, including the determination of the DC eligible and non-DC-eligible components of the capital projects; and
 - An examination of the long-term capital and operating costs for the capital infrastructure required for each service to which the development charges by-law would relate.
- This report identifies the capital costs attributable to the development that is forecast to occur in the County. The costs are apportioned to types of development (residential, non-residential) in a manner that reflects the increase in the need for each service.

ALL SERVICES WITH DEVELOPMENT-RELATED COSTS INCLUDED IN THE ANALYSIS

- The following services have been included in the development charge analysis:
 - General Government
 - Library Services
 - Land Ambulance
 - Administration Building
 - Roads and Related
 - Water
 - Wastewater
- A County-wide average cost approach is used to calculate development charges for the General services of General Government, Library Services,

Land Ambulance and the Administration Building, as well as Roads and Related.

- In addition, area-specific development charges, called “Special Area Development Charges” are calculated for water and wastewater services. The area-specific approach more closely aligns costs and benefits for services where benefits are more localized and can be identified. This approach is combined with the average County-wide approach for all other services.

DEVELOPMENT FORECAST

The forecast of future residential and non-residential development is based on forecasts for the County prepared as part of the *Oxford County Population, Households and Employment Forecasts and Employment Lands Study*, dated March 5, 2014.

- The County is forecast to add approximately 4,738 new households in the 10-year planning period from 2014-2023. This translates into a population growth of 7,021. In the same ten-year time frame, it is anticipated that the County will see an increase of 6,782 new employees that will be accommodated in 480,950 square metres of new non-residential building space.
- Over the longer planning horizon of 2014-2041, utilized for engineered services, the County is forecast to add roughly 10,420 new residential dwelling units which can accommodate a population growth of 15,752 persons. The employment forecasts a growth of 12,940 new employees that will be accommodated in 919,289 square metres of new non-residential building space.
- The following is a summary of the projected growth for the County:

Development Forecast

Growth Forecast	General Services Planning Period			Engineered Services Planning Period	
	2013 Estimate	Ten-year Growth	2023 Estimate	2014 - 2041	
				Growth	Total at 2041
Residential					
Total Occupied Dwellings	42,505	4,738	47,243	10,420	52,925
Total Population					
Census	107,078	7,021	114,099	15,752	122,830
<i>Population In New Dwellings</i>		12,154		26,738	
Non-Residential					
Employment	58,383	6,782	65,165	12,940	71,323
Non-Residential Building Space (sq.m.)		480,950		919,289	

THE COUNTY HAS AN EXTENSIVE DEVELOPMENT-RELATED CAPITAL PROGRAM FOR THE PROVISION OF ELIGIBLE SERVICES

General Services 2014 – 2023

- County staff, in collaboration with Hemson Consulting, has developed a development-related capital program identifying projects that are required to service anticipated growth. The development-related capital programs for general services are based on a ten-year planning period from 2014 to 2023.
- The gross cost of the County's development-related capital program for General Services amounts to \$13.11 million and provides for various debt recovery payments. Of the \$13.11 million, approximately \$1.60 million has been identified as eligible for recovery through development charges over the 2014–2023 planning period.
- The DCA requires that development-related net capital costs for general services be reduced by 10 per cent when calculating the applicable development charges for these services. The 10 per cent share of development-related net capital costs not included in the development charges calculations must be funded from non-development charges sources. In total, \$396,800 is identified as the required 10 per cent reduction.
- Non-development charges funding for replacement portions of the capital program and for portions of development-related capital projects that benefit

existing development have been identified. Replacement or benefit to existing shares amount to \$8.99 million.

- A share of the capital program is deducted for portions of projects that relate to development in the post-2023 period, which will be considered for recovery in future development charges studies subject to service level considerations. In total, \$807,000 falls within this definition.
- Available DC reserve funds have been identified in each capital program to fund development-related infrastructure and amount to \$1.16 million.
- The following is a summary of the development-related capital program for general services.

Summary of Capital Forecast for County-Wide Services

Service	Gross Municipal Costs (\$000)	Total DC Eligible Costs for Recovery (\$000)
1.0 GENERAL GOVERNMENT	\$1,075.0	\$34.6
2.0 LIBRARY SERVICES	\$2,213.1	\$602.3
3.0 LAND AMBULANCE SERVICES	\$2,000.0	\$616.0
4.0 ADMINISTRATION BUILDING	\$7,819.2	\$347.0
TOTAL 10 YEAR GENERAL SERVICES	\$13,107.3	\$1,599.9

- Details regarding the capital programs for each individual service are provided in Appendix B of this report.

Engineered Services 2014 – 2041

- The development-related capital program for roads, water, and sanitary sewer services is based on a long term planning period, 2014-2041.

- Roads and related services are calculated on a County-wide basis. The development charges for water and wastewater are calculated on an area-specific basis. Full details regarding the roads and related service can be found in Appendix C. For the area-specific services of Water and Wastewater, see Appendices D to K.

DEVELOPMENT CHARGES ARE CALCULATED WITH REFERENCE TO THE *DCA*

- Development charges rates have been established under the parameters and limitations of the *DCA*. This study provides the rationale and basis for the calculated rates.
- Both County-wide and area-specific cost approaches have been used to calculate development charges for all eligible services and are discussed in the main report.
- The calculated charges are the maximum charges the County may adopt. Lower charges can be approved; however, this will require a reduction in the capital plan and reduced service levels or financing from other sources, most likely property taxes.
- The fully calculated residential charges are recommended to vary by unit type, reflecting the difference in occupancy patterns expected in various unit types and the associated differences in demand that would be placed on County services.
- The following is a summary of the fully calculated development charges:

Calculated County-Wide Residential Development Charges

Service	Adjusted Charge Per Capita	Residential Charge By Unit Type (1)			
		Singles & Semis	Rows & Other Multiples	Apartments 2+ Bedrooms	Apartments Bachelor or 1 Bedroom
General Government	\$1.73	\$5	\$4	\$3	\$2
Library Services (1)	\$133.50	\$392	\$271	\$214	\$160
Land Ambulance Services	\$43.50	\$128	\$88	\$70	\$52
Administration Building	\$21.30	\$62	\$43	\$34	\$26
Roads And Related	\$687.29	\$2,017	\$1,395	\$1,100	\$825
TOTAL CHARGE PER UNIT	\$887.32	\$2,604	\$1,801	\$1,421	\$1,065
(1) Based on Persons Per Unit Of:		2.93	2.03	1.60	1.20

Note 1: The charge for Library Services is not applicable in Woodstock

Calculated County-Wide Non-Residential Development Charges

Service	Non-Residential Charge
General Government	\$0.03
Library Services	\$0.00
Land Ambulance Services	\$0.62
Administration Building	\$0.31
Roads And Related	\$9.48
TOTAL CHARGE PER SQUARE METRE	\$10.44

Calculated Area-Specific Development Charges

WOODSTOCK

Residential Development Charge Rates \$/unit

Service	Singles	Multiples	Large Apt	Small Apt
Water	\$2,657	\$2,227	\$1,652	\$1,253
Wastewater	\$2,878	\$2,413	\$1,789	\$1,357
Total	\$5,535	\$4,640	\$3,441	\$2,610

Non-Residential

\$/Sq.M	\$/Sq.Ft.
\$6.89	\$0.64
\$7.47	\$0.69
\$14.36	\$1.33

TILLSONBURG

Residential Development Charge Rates \$/unit

Service	Singles	Multiples	Large Apt	Small Apt
Water	\$1,277	\$1,202	\$874	\$656
Sewer	\$8,706	\$8,199	\$5,963	\$4,472
Total	\$9,983	\$9,401	\$6,837	\$5,128

Non-Residential

\$/Sq.M	\$/Sq.Ft.
\$6.62	\$0.62
\$45.52	\$4.23
\$52.14	\$4.84

INGERSOLL

Residential Development Charge Rates \$/unit

Service	Singles	Multiples	Large Apt	Small Apt
Water	\$1,680	\$1,243	\$904	\$678
Sewer	\$9,931	\$7,348	\$5,344	\$4,008
Total	\$11,611	\$8,591	\$6,248	\$4,686

Non-Residential

\$/Sq.M	\$/Sq.Ft.
\$8.15	\$0.76
\$48.15	\$4.47
\$56.30	\$5.23

TAVISTOCK

Residential Development Charge Rates \$/unit

Service	Singles	Multiples	Large Apt	Small Apt
Water	\$973	\$856	\$622	\$467
Sewer	\$9,723	\$8,556	\$6,222	\$4,667
Total	\$10,696	\$9,412	\$6,844	\$5,134

Non-Residential

\$/Sq.M	\$/Sq.Ft.
\$5.09	\$0.47
\$50.83	\$4.72
\$55.92	\$5.20

THAMESFORD

Residential Development Charge Rates \$/unit

Service	Singles	Multiples	Large Apt	Small Apt
Water	\$2,103	\$1,432	\$1,042	\$781
Sewer	\$6,011	\$4,094	\$2,978	\$2,233
Total	\$8,114	\$5,526	\$4,020	\$3,014

Non-Residential

\$/Sq.M	\$/Sq.Ft.
\$8.70	\$0.81
\$24.76	\$2.30
\$33.46	\$3.11

NORWICH

Residential Development Charge Rates \$/unit

Service	Singles	Multiples	Large Apt	Small Apt
Water	\$2,229	\$1,619	\$1,178	\$883
Sewer	\$8,164	\$5,931	\$4,314	\$3,235
Total	\$10,393	\$7,550	\$5,492	\$4,118

Non-Residential

\$/Sq.M	\$/Sq.Ft.
\$9.62	\$0.89
\$35.25	\$3.27
\$44.87	\$4.17

PLATTSVILLE

Residential Development Charge Rates \$/unit

Service	Singles	Multiples	Large Apt	Small Apt
Water	\$4,151	\$2,468	\$1,795	\$1,346
Sewer	\$11,788	\$7,009	\$5,098	\$3,823
Total	\$15,939	\$9,477	\$6,893	\$5,169

Non-Residential

\$/Sq.M	\$/Sq.Ft.
\$33.02	\$3.07
\$93.68	\$8.70
\$126.70	\$11.77

DRUMBO

Residential Development Charge Rates \$/unit

Service	Singles	Multiples	Large Apt	Small Apt
Water	\$0	\$0	\$0	\$0
Sewer	\$7,774	\$4,622	\$3,362	\$2,521
Total	\$7,774	\$4,622	\$3,362	\$2,521

Non-Residential

\$/Sq.M	\$/Sq.Ft.
\$0.00	\$0.00
\$27.45	\$2.55
\$27.45	\$2.55

NEWLY CALCULATED RESIDENTIAL RATES ARE HIGHER THAN CURRENT RATES

- The fully calculated County-wide residential charge for a single or semi-detached unit in Oxford is \$2,604, which represents a 9 per cent increase from the County's current charge of \$2,394.

Current vs. Calculated Residential Charges

Service	Current Residential Charge / SDU	Calculated Residential Charge / SDU	Difference in Charge	
General Government	\$8	\$5	(\$3)	-37.5%
Library Services (1)	\$766	\$392	(\$374)	-48.8%
Land Ambulance Services	\$81	\$128	\$47	58.0%
Administration Building	\$181	\$62	(\$119)	-65.7%
Roads And Related	\$1,358	\$2,017	\$659	48.5%
TOTAL CHARGE PER UNIT	\$2,394	\$2,604	\$210	8.8%

Note 1: The charge for Library Services is not applicable in Woodstock

- The calculated County-wide non-residential charge in Oxford of \$10.44 per square metre of gross floor area represents an 83 per cent increase from the County's current non-residential charge of \$5.72 per square metre.

Current vs. Calculated Non-Residential Charges

Service	Non-Residential (\$/Square Metre)			
	Current Non-Residential Charge	Calculated Non-Residential Charge	Difference in Charge	
General Government	\$0.03	\$0.03	\$0.00	0.0%
Library Services	\$0.00	\$0.00	\$0.00	0.0%
Land Ambulance Services	\$0.30	\$0.62	\$0.32	106.7%
Administration Building	\$0.68	\$0.31	(\$0.37)	-54.4%
Roads And Related	\$4.71	\$9.48	\$4.77	101.3%
TOTAL CHARGE PER SQUARE METRE	\$5.72	\$10.44	\$4.72	82.5%

- As is shown on the table below, the residential and non-residential area-specific charges are generally increasing.

AREA-SPECIFIC DEVELOPMENT CHARGES
COMPARISON OF EXISTING AND PROPOSED
RESIDENTIAL AND NON-RESIDENTIAL CHARGES

Residential - Charge Per Single Detached Unit	WOODSTOCK ¹	TILLSONBURG	INGERSOLL	TAVISTOCK	NORWICH	DRUMBO	THAMESFORD	PLATTSVILLE	BLANFORD-BLENHEIM	EAST ZORRA-TAVISTOCK	ZORRA	SOUTH-WEST OXFORD
CALCULATED COUNTY-WIDE SERVICES	\$2,212	\$2,604	\$2,604	\$2,604	\$2,604	\$2,604	\$2,604	\$2,604	\$2,604	\$2,604	\$2,604	\$2,604
CALCULATED COUNTY WATER	\$2,657	\$1,277	\$1,680	\$973	\$2,229	\$0	\$2,103	\$4,151	n/a	n/a	n/a	n/a
CALCULATED COUNTY WASTEWATER	\$2,878	\$8,706	\$9,931	\$9,723	\$8,164	\$7,774	\$6,011	\$11,788	n/a	n/a	n/a	n/a
TOTAL CALCULATED CHARGE (\$/sdu)	\$7,747	\$12,587	\$14,215	\$13,300	\$12,997	\$10,378	\$10,718	\$18,543	\$2,604	\$2,604	\$2,604	\$2,604
EXISTING COUNTY-WIDE SERVICES	\$1,628	\$2,394	\$2,394	\$2,394	\$2,394	\$2,394	\$2,394	\$2,394	\$2,394	\$2,394	\$2,394	\$2,394
EXISTING COUNTY WATER	\$2,488	\$2,158	\$2,349	\$3,410	\$1,228	\$4,209	\$1,942	\$5,894	n/a	n/a	n/a	n/a
EXISTING COUNTY WASTEWATER	\$3,063	\$7,532	\$7,274	\$7,136	\$8,507	\$3,349	\$6,142	\$10,238	n/a	n/a	n/a	n/a
TOTAL EXISTING CHARGE (\$/sdu)	\$7,179	\$12,084	\$12,017	\$12,940	\$12,129	\$9,952	\$10,478	\$18,526	\$2,394	\$2,394	\$2,394	\$2,394
<i>Difference in Charge (\$)</i>	\$568	\$503	\$2,198	\$360	\$868	\$426	\$240	\$17	\$210	\$210	\$210	\$210
<i>Difference in Charge (%)</i>	8%	4%	18%	3%	7%	4%	2%	0%	9%	9%	9%	9%

Note 1: County-wide Library services are not applicable in Woodstock

Non-Residential - Charge Per Square Metre of GFA	WOODSTOCK	TILLSONBURG	INGERSOLL	TAVISTOCK	NORWICH	DRUMBO	THAMESFORD	PLATTSVILLE	BLANFORD-BLENHEIM	EAST ZORRA-TAVISTOCK	ZORRA	SOUTH-WEST OXFORD
CALCULATED COUNTY-WIDE SERVICES	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44
CALCULATED COUNTY WATER	\$6.89	\$6.62	\$8.15	\$5.09	\$9.62	\$0.00	\$8.70	\$33.02	n/a	n/a	n/a	n/a
CALCULATED COUNTY WASTEWATER	\$7.47	\$45.52	\$48.15	\$50.83	\$35.25	\$27.45	\$24.76	\$93.68	n/a	n/a	n/a	n/a
TOTAL CALCULATED CHARGE (\$/sq.m.)	\$24.80	\$62.58	\$66.74	\$66.36	\$55.31	\$37.89	\$43.90	\$137.14	\$10.44	\$10.44	\$10.44	\$10.44
EXISTING COUNTY-WIDE SERVICES	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72
EXISTING COUNTY WATER	\$8.60	\$7.20	\$7.45	\$15.32	\$5.19	\$15.77	\$7.35	\$41.63	n/a	n/a	n/a	n/a
EXISTING COUNTY WASTEWATER	\$10.62	\$25.77	\$23.03	\$32.07	\$35.70	\$12.51	\$23.22	\$72.30	n/a	n/a	n/a	n/a
TOTAL EXISTING CHARGE (\$/sq.m.)	\$24.94	\$38.69	\$36.20	\$53.11	\$46.61	\$34.00	\$36.29	\$119.65	\$5.72	\$5.72	\$5.72	\$5.72
<i>Difference in Charge (\$)</i>	(\$0.14)	\$23.89	\$30.54	\$13.25	\$8.70	\$3.89	\$7.61	\$17.49	\$4.72	\$4.72	\$4.72	\$4.72
<i>Difference in Charge (%)</i>	-1%	62%	84%	25%	19%	11%	21%	\$0.15	83%	83%	83%	83%

DEVELOPMENT CHARGES BY-LAW PRACTICES AND COLLECTION POLICIES

- As required under the *DCA*, the County should codify any rules regarding application of the by-laws and any exemptions within the development charges by-law proposed for adoption.
- The proposed draft by-law sets out the rules to determine development charges applicable in any particular case. Rules for exemptions are also outlined in the proposed draft by-law.
- It is recommended that Council adopt the development-related capital program included in this background study, subject to annual review through the County's normal capital budget process.

I INTRODUCTION

The *Development Charges Act, 1997 (DCA)* and its associated *Ontario Regulation 82/98 (O. Reg. 82/98)* allow municipalities in Ontario to recover development-related capital costs from new development. The County of Oxford Development Charges Background Study is presented as part of a process to establish a development charges by-law that complies with this legislation.

The County of Oxford is experiencing residential growth pressure and is also an attractive location for a variety of non-residential development. The anticipated growth in Oxford will increase the demand on all County services. The County wishes to implement development charges to fund capital projects related to growth in Oxford so that development continues to be serviced in a fiscally responsible manner.

When a development charges by-law is proposed, the *DCA* and *O. Reg. 82/98* require that a development charges background study be prepared in support of the proposed changes with reference to:

- A forecast of the amount, type and location of development anticipated in the County;
- The average capital service levels provided in the County over the ten-year period immediately preceding the preparation of the background study;
- A review of future capital projects, including an analysis of gross expenditures, funding sources, and net expenditures incurred, or to be incurred, by the County or its local boards to provide for the expected development, including the determination of the growth and non-growth-related components of the capital projects; and
- An examination of the long-term capital and operating costs for the capital infrastructure required for each service to which the development charges by-laws would relate.

This study identifies the development-related net capital costs attributable to development that is forecast to occur in the County. The costs are apportioned to types of development (residential and non-residential) in a manner that reflects the

increase in the need for each service attributable to each type of development. The study therefore calculates development charges for each type of development.

The *DCA* provides for a period of public review and comment regarding the calculated development charges. This process includes considering and responding to comments received by members of the public about the calculated charges. Following completion of this process, and in accordance with the *DCA* and Council's review of this study, it is intended that Council will pass new development charges for the County.

The remainder of this study sets out the information and analysis upon which the calculated development charges are based.

Section II designates the services for which the development charges are calculated and the areas within the County to which the development charges will apply. It also briefly reviews the methodologies that have been used in this background study.

Section III presents a summary of the forecast residential and non-residential development which is expected to occur within the County over two planning periods; a ten-year period from 2014 to 2023, and a long-term period from 2014 to 2041.

Section IV summarizes the ten-year historic average capital service levels that have been attained in the County, which form the basis for the development charges calculations.

In Section V, the development-related capital forecast that has been developed by various County departments is reviewed.

Section VI summarizes the calculation of applicable development charges and the resulting calculated development charges by class and type of development.

Section VII provides an examination of the long term capital and operating costs for each service included in the development charge calculation.

Section VIII provides a discussion of the County's local service definitions.

II THE METHODOLOGY USES BOTH A COUNTY-WIDE AND AREA-SPECIFIC APPROACH TO ALIGN DEVELOPMENT-RELATED COSTS AND BENEFITS

Several key steps are required when calculating any development charge; however, specific circumstances arise in each municipality which must be reflected in the calculation. In this study, we have tailored our approach to accommodate the County of Oxford. The approach to the calculated development charges is focused on providing a reasonable alignment of development-related costs with the development that necessitates them. This study uses both a County-wide and area-specific approach for eligible services provided by the County of Oxford. The Background Study provides an update to the historic service levels and the cost of providing future development-related capital infrastructure.

A. BOTH COUNTY-WIDE AND AREA-SPECIFIC DEVELOPMENT CHARGES ARE PROPOSED

The DCA provides municipalities with flexibility to define services that will be included in the development charges by-laws, provided that its other provisions, as well as those of *O. Reg. 82/98*, are met. The DCA also requires that the by-laws designate the areas within which DCs shall be imposed. The development charges may apply to all lands in a municipality or to other designated development areas as specified in the by-laws.

1. Services Based on a County-Wide Approach

For a number of development charges-eligible services that the County provides, a range of capital facilities, land, equipment and infrastructure is available throughout the County. All County residents have access to all facilities. As new development occurs, new facilities will need to be added so that overall service levels in the County do not decline. A widely accepted method for sharing the growth-related capital costs for such County services is to apportion them over all new anticipated development.

The following services are included in the County-wide development charges calculations:

- General Government
- Library Services

- Land Ambulance
- Administration Building
- Roads and Related

These services form a reasonable basis in which to plan and administer the County-wide development charges. It is noted that the analysis of each of these services examines the individual capital facilities and equipment that constitute it. The resulting development charges for these services would be imposed against all development anywhere in the County.

2. Area-Specific Charges Are Proposed

For some services the County provides, the need for development-related capital additions to support anticipated development is more localized. For such services, an alternative technique – the area-specific approach – is employed.

The area-specific charges relate to the provision of water and wastewater services. Charges for these services are called Special Area Development Charges and are consistent with the County's existing development charges for such works. A review of water and wastewater (sanitary sewer) capital servicing plans indicates that there are considerable differences in the servicing requirements of the various areas that are to be developed as the County grows. The water distribution and wastewater collection systems require differing additional, identifiable and independent projects in order to provide for anticipated growth. The area-specific approach is applied to water and wastewater services to more closely align the capital costs for these services with the particular areas that will be serviced by the required infrastructure.

Special Area Development Charges are therefore calculated for:

- Water Services
- Wastewater Services

The area-specific approach for these services reflects the fact that the demand for, and benefit from, the projects provided by the County is much more localized than that for other County services. Area-specific charges result in a more accurate distribution of costs among developers than the County-wide approach. The geographic areas that are included coincide with the specific service area for each water and sanitary sewer project.

The area-specific approach also facilitates front-end financing arrangements for the designated services if the County chooses to use the front-ending provisions of the DCA. As an alternative, the area-specific charges also facilitate the use of developer group cost-sharing agreements.

B. KEY STEPS WHEN DETERMINING DEVELOPMENT CHARGES FOR FUTURE DEVELOPMENT-RELATED PROJECTS

Several key steps are required when calculating development charges for future development-related projects. They are summarized below.

1. Growth Forecast

The first step in the methodology requires that a development forecast be prepared for the ten-year study period from 2014 to 2023, and to 2041 for engineered services. The forecast of the future residential and non-residential development used in this study is based on the *Oxford County Population, Households and Employment Forecasts and Employment Lands Study*, dated March 5, 2014.

For the residential portion of the forecast, the total Census change in population determines the need for additional facilities and provides the foundation for the development-related capital forecast.

The non-residential portion of the forecast estimates the amount of building space to be developed in the County over the planning periods. The forecast is based on the projected increase in employment levels and the anticipated amount of new building space required to accommodate it.

2. Service Categories and Historic Service Levels

The DCA states that the increase in the need for service attributable to anticipated development:

... must not include an increase that would result in the level of service exceeding the average level of that service provided in the County over the 10-year period immediately preceding the preparation of the background study...(s. 5. (1) 4.)

Historic ten-year average service levels thus form the basis for the development charges calculation. A review of the County's capital service levels for buildings, land, vehicles, equipment and others has therefore been prepared as a reference for the calculation so that the portion of future capital projects that may be included in the development charges can be determined. The historic service levels used in this study have been calculated based on the period from 2004 to 2013.

For the engineered services of roads, water and wastewater services, historic service levels are less applicable and reference is made to the County's engineering standards as well as Provincial health or environmental requirements.

3. Development-Related Capital Forecast and Analysis of Net Capital Costs to Be Included in the Development Charges

A development-related capital forecast has been prepared by County staff as part of the study. The forecast identifies development-related projects and their gross and net costs, after allowing for capital grants, subsidies or other contributions as required by the *DCA* s.5.(2). The capital forecast provides another cornerstone upon which development charges are based. The *DCA* requires that the increase in the need for service attributable to the anticipated development may include an increase:

... only if the council of the County has indicated that it intends to ensure that such an increase in need will be met. (s. 5. (1) 3.)

S. 5. (1) 4. and s. 5. (2). require that the development charges be calculated on the lesser of the historic ten-year average service levels or the service levels embodied in the future plans of the County. The development-related capital forecast prepared for this study ensures that development charges are only imposed to help pay for projects that have been or are intended to be purchased or built in order to accommodate future anticipated development. It is not sufficient in the calculation of development charges merely to have had the service in the past. There must also be a demonstrated commitment to continue to emplace facilities or infrastructure in the future. In this regard, *Ontario Regulation 82/98*, s. 3 states that:

For the purposes of paragraph 3 of subsection 5 (1) of the Act, the council of a municipality has indicated that it intends to ensure that an increase in the need for service will be met if the increase in service forms part of an official plan, capital forecast or similar expression of the intention of the council and the plan, forecast or similar expression of the intention of the council has been approved by the council.

For some projects in the development-related capital forecast, a portion of the project may confer benefits to existing residents. As required by the *DCA*, s. 5. (1) 6., these portions of projects and their associated net costs are the funding responsibility of the County from non-development charges sources. The amount of financing for such non-growth shares of projects is also identified as part of the preparation of the development-related capital forecast.

There is also a requirement in the *DCA* to reduce the applicable development charges by the amount of any "uncommitted excess capacity" that is available for a

service. Such capacity is available to partially meet future servicing requirements. Adjustments are made in the analysis to meet this requirement of the Act.

Finally, when calculating development charges, the development-related net capital costs must be reduced by ten per cent for all services except engineered services, such as roads and related (*DCA, s. 5. (1) 8*). The ten per cent discount is applied to the other services, e.g. Library Services and Land Ambulance, and the resulting financing responsibility from non-development charges sources is identified.

4. Attribution to Types of Development

The next step in the determination of development charges is the allocation of the development-related net capital costs between the residential and the non-residential sectors. In the County of Oxford, the allocation is based on the projected changes in population and employment over the planning periods, the anticipated demand for services and other relevant factors.

The residential component of the development charges is applied to different housing types based on average occupancy factors. The non-residential component is applied on the basis of gross building space in square metres.

5. Final Adjustment

The final determination of the development charges results from adjustments made to development-related net capital costs for each service and sector resulting from a cash flow analysis that takes account of the timing of projects and receipt of development charges. Interest earnings or borrowing costs are therefore accounted for in the calculation as allowed under the *DCA*.

III DEVELOPMENT FORECAST

The *Development Charges Act (DCA)* requires the County to estimate “the anticipated amount, type and location of development” for which development charges may be imposed. The development forecast must cover both residential and non-residential development and be specific enough with regards to quantum, type, location and timing of development to allow the County to prepare a reasonable development-related capital program.

The forecast of future residential and non-residential development used in this study is largely based on the *Oxford County, Population, Households and Employment Lands Study*, dated March 5, 2014.

A ten year development forecast, from 2014 to 2023, has been used for all the development charges eligible soft services in the County. The planning period from 2014 to 2041 has been utilized for the engineered services of Roads, Water, and Wastewater servicing.

A. RESIDENTIAL FORECAST

Development charges are levied on residential development as a charge per new unit. Therefore, the residential forecast, a projection of both the *population growth* as well as the *population in new housing units* is required.

- The *population growth* determines the need for additional facilities and provides the foundation for the development-related capital program.
- When calculating the development charge, however, the development-related net capital costs are spread over the total additional population that occupy new housing units. This *population in new units* represents the population from which development charges will be collected.

The County is forecast to growth by 7,021 people and 4,738 households over the period from 2014 to 2023, and by 15,752 persons and 10,420 households from 2014 to 2041. The population growth in new units is forecast at 12,154 over the ten year period and 26,738 over the period 2014 to 2041.

B. NON-RESIDENTIAL FORECAST

Development charges are levied on non-residential development as a charge per unit of gross floor area (GFA). As with the residential forecast, the non-residential forecast requires both a projection of employment growth as well as a projection of new floor space associated with that growth.

Employment in the County is expected to increase by 6,782 employees over the ten-year period from 58,383 in 2013 to 65,165 in 2023. Approximately 480,950 square metres of floor space is forecast to be added in the 2014-2023 planning period, and 919,289 square metres is expected between 2014 and 2041.

Table 1 provides a summary of the residential and non-residential growth forecast used in this analysis.

TABLE 1

**OXFORD COUNTY
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL
DEVELOPMENT FORECAST**

Growth Forecast	General Services Planning Period			Engineered Services Planning Period	
	2013 Estimate	Ten-year Growth	2023 Estimate	2014 - 2041	
				Growth	Total at 2041
Residential					
Total Occupied Dwellings	42,505	4,738	47,243	10,420	52,925
Total Population					
Census	107,078	7,021	114,099	15,752	122,830
<i>Population In New Dwellings</i>		12,154		26,738	
Non-Residential					
Employment	58,383	6,782	65,165	12,940	71,323
Non-Residential Building Space (sq.m.)		480,950		919,289	

IV HISTORIC CAPITAL SERVICE LEVELS

The *DCA* and *O. Reg. 82/98* require that the development charges be set at a level no higher than the average service level provided in the County over the ten-year period immediately preceding the preparation of the background study, on a service-by-service basis.

For non-engineered services (Library Services, Land Ambulance, etc.) the legislative requirement is met by documenting service levels for the preceding ten years: in this case, for the period from 2004 to 2013. Typically, service levels are measured as a ratio of inputs per capita or inputs per population and employment. With engineered services such as roads, water and sewer, engineering standards are used in lieu of inputs per capita.

O. Reg. 82/98 requires that, when defining and determining historic service levels, both the quantity and quality of service be taken into consideration. In most cases, the service levels are initially established in quantitative terms. For example, service levels for buildings are presented in terms of square feet per unit. The qualitative aspect is introduced by considering the monetary value of a facility or service. In the case of buildings, for example, the cost would be shown in terms of dollars per square foot to replace or construct a facility of the same quality. This approach helps to ensure that the development-related capital facilities that are to be charged to new growth reflect not only the quantity (number and size) but also the quality (value or cost) of services provided by the County in the past. Both the quantitative and qualitative aspects of service levels used in the current analysis are based on information provided by County staff. This information is generally based on historical records and the County's and surrounding municipalities' experience with costs to acquire or construct similar facilities, equipment and infrastructure.

Table 2 summarizes service levels for all general services included in the development charges calculations. Appendix B provides detailed historical inventory data upon which the calculation of service levels is based for all general services.

TABLE 2
OXFORD COUNTY
SUMMARY OF AVERAGE HISTORIC SERVICE LEVELS 2004 - 2013

Service	2004 - 2013 Service Level Indicator
1.0 LIBRARY SERVICES	\$271.14 per capita
Buildings	\$165.37 per capita
Land	\$4.05 per capita
Materials	\$86.93 per capita
Furniture And Equipment	\$14.79 per capita
2.0 LAND AMBULANCE SERVICES	\$49.58 per population & employment
Buildings	\$24.08 per population & employment
Land	\$3.08 per population & employment
Vehicles	\$12.81 per population & employment
Furniture & Equipment	\$9.61 per population & employment

V DEVELOPMENT-RELATED CAPITAL FORECAST

The *DCA* requires that the Council of a municipality express its intent to provide future capital facilities at the level incorporated in the development charges calculation. As noted above in Section II, *Ontario Regulation 82/98, s. 3* states that:

For the purposes of paragraph 3 of subsection 5 (1) of the Act, the council of a County has indicated that it intends to ensure that an increase in the need for service will be met if the increase in service forms part of an official plan, capital forecast or similar expression of the intention of the council and the plan, forecast or similar expression of the intention of the council has been approved by the council.

A. DEVELOPMENT-RELATED CAPITAL FORECAST IS PROVIDED FOR COUNCIL'S APPROVAL

Based on the growth forecasts summarized in Section III and detailed in Appendix A, County staff, in collaboration with the consultant has developed a development-related capital forecast which sets out those projects that are required to service anticipated growth. For all general services, the capital plan covers the ten-year period from 2014 to 2023. As permitted by the *DCA s. 5(1) 4.*, the development charge for the engineering services is based on a longer planning horizon, to 2041.

One of the recommendations contained in this background study is for Council to adopt the development-related capital forecast developed for the purposes of the development charges calculation. It is assumed that future capital budgets and forecasts will continue to bring forward the capital projects presented here as they will be needed to service the anticipated growth in the County. It is, however, acknowledged that changes to the forecast presented here may occur through the County's normal capital budget process.

B. THE DEVELOPMENT-RELATED CAPITAL FORECAST FOR GENERAL SERVICES

A summary of the development-related capital forecast for general services is presented in Table 3. The table shows that the gross cost of the County's capital forecast is estimated to be \$13.11 million. One grant/subsidy or other recovery in the amount of \$150,000 has been identified to subsidize the cost of various secondary planning and servicing studies, which has been netted off the total capital program cost. The remaining \$12.96 million is identified as the total municipal cost brought forward to the development charges calculation.

TABLE 3

OXFORD COUNTY
SUMMARY OF DEVELOPMENT-RELATED CAPITAL PROGRAM
FOR GENERAL SERVICES 2014 - 2023
(in \$000)

Service	Gross Cost	Grants/ Subsidies	Municipal Cost	Total Net Capital Program									
				2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1.0 GENERAL GOVERNMENT	\$1,075.0	\$150.0	\$925.0	\$0.0	\$75.0	\$0.0	\$75.0	\$85.0	\$600.0	\$0.0	\$0.0	\$0.0	\$90.0
1.1 Growth-Related Studies	\$1,075.0	\$150.0	\$925.0	\$0.0	\$75.0	\$0.0	\$75.0	\$85.0	\$600.0	\$0.0	\$0.0	\$0.0	\$90.0
2.0 LIBRARY SERVICES	\$2,213.1	\$0.0	\$2,213.1	\$230.3	\$230.3	\$230.3	\$230.3	\$230.3	\$230.3	\$230.3	\$230.3	\$200.3	\$170.4
2.1 Buildings, Land & Furnishings	\$1,726.1	\$0.0	\$1,726.1	\$181.6	\$181.6	\$181.6	\$181.6	\$181.6	\$181.6	\$181.6	\$181.6	\$151.6	\$121.7
2.2 Material Acquisitions	\$487.0	\$0.0	\$487.0	\$48.7	\$48.7	\$48.7	\$48.7	\$48.7	\$48.7	\$48.7	\$48.7	\$48.7	\$48.7
3.0 LAND AMBULANCE SERVICES	\$2,000.0	\$0.0	\$2,000.0	\$200.0	\$200.0	\$200.0	\$200.0	\$200.0	\$200.0	\$200.0	\$200.0	\$200.0	\$200.0
3.1 Buildings, Land & Furnishings	\$2,000.0	\$0.0	\$2,000.0	\$200.0	\$200.0	\$200.0	\$200.0	\$200.0	\$200.0	\$200.0	\$200.0	\$200.0	\$200.0
4.0 ADMINISTRATION BUILDING	\$7,819.2	\$0.0	\$7,819.2	\$7,819.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4.1 Non-Corporate Services	\$7,819.2	\$0.0	\$7,819.2	\$7,819.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
TOTAL - 10 YEAR GENERAL SERVICES	\$13,107.3	\$150.0	\$12,957.3	\$8,249.5	\$505.3	\$430.3	\$505.3	\$515.3	\$1,030.3	\$430.3	\$430.3	\$400.3	\$460.4

Of this \$12.96 million net capital cost, 60.3 per cent, or \$7.82 million is related to the recovery of the recently constructed administration building. The capital program recovers for the building space associated with the provision of municipal services (or non-corporate services), and excludes that space associated with administrative services.

The capital program for Library Services relates to debenture payments related to the construction of the Norwich Library Branch and the recovery of costs associated with the Tillsonburg library branch renovation and expansion. Additional library collection materials are also included in the capital program. These projects add \$2.21 million to the total capital program, which represents 17.1 per cent.

The next largest capital program belongs to Land Ambulance. This capital program totals \$2.00 million, or 15.4 per cent, and recovers for debt associated with the Mill Street EMS Station.

The remainder of the County's development-related capital program consists of \$925,000 and relates to the provision of development-related studies. These studies include additional development charges studies, Secondary Planning and Servicing studies, as well as a County Official Plan and related planning studies.

The capital forecast incorporates those projects identified to be related to growth anticipated in the next ten years. It is not implied that all of these costs are to be recovered from new development by way of development charges (see the following Section VI). Portions of the capital forecast may be related to the replacement of existing facilities, shares of projects that benefit the existing population, or growth anticipated to occur beyond the 2014 – 2023 planning period. In addition to these reductions, the amounts shown in Table 3 have not been reduced by ten per cent for various general services as required by s. 5 (1) of the DCA.

After these reductions, the remaining development-related capital costs are brought forward to the development charges calculation. Further details on the capital plans for each individual service category are available in Appendix B.

C. THE DEVELOPMENT-RELATED CAPITAL FORECAST FOR ENGINEERED SERVICES

Table 4 provides a summary of the engineering development-related capital program for the roads and related projects as well as the various area-specific water and wastewater service projects. The County engineering development-related capital

program totals \$274.96 million and provides servicing for anticipated growth over the period 2014 - 2041. Details for the specific projects and cost allocations can be found in Appendices C through K.

TABLE 4

**COUNTY OF OXFORD
DEVELOPMENT-RELATED CAPITAL FORECAST
SUMMARY OF ENGINEERED SERVICES**

	Development-Related Capital Forecast		
	Gross Cost (\$000)	Grants and Subsidies ¹ (\$000)	Net Municipal Cost (\$000)
Woodstock			
Water Servicing	\$22,486.7	\$4,024.6	\$18,462.1
Wastewater Servicing	\$30,845.5	\$5,097.9	\$25,747.6
Total Water and Wastewater Servicing - Woodstock	\$53,332.2	\$9,122.5	\$44,209.7
Tillsonburg			
Water Servicing	\$6,128.7	\$438.0	\$5,690.7
Wastewater Servicing	\$40,679.9	\$1,854.9	\$38,824.9
Total Water and Wastewater Servicing - Tillsonburg	\$46,808.6	\$2,292.9	\$44,515.6
Ingersoll			
Water Servicing	\$11,576.4	\$6,512.2	\$5,064.2
Wastewater Servicing	\$45,393.9	\$4,409.3	\$40,984.6
Total Water and Wastewater Servicing - Ingersoll	\$56,970.3	\$10,921.5	\$46,048.8
Plattsville			
Water Servicing	\$2,252.2	\$483.0	\$1,769.2
Wastewater Servicing	\$3,766.2	\$0.0	\$3,766.2
Total Water and Wastewater Servicing - Plattsville	\$6,018.4	\$483.0	\$5,535.4
Drumbo			
Water Servicing	\$1,327.8	\$495.0	\$832.8
Wastewater Servicing	\$3,836.5	\$2,277.2	\$1,559.3
Total Water and Wastewater Servicing - Drumbo	\$5,164.3	\$2,772.2	\$2,392.1
Tavistock			
Water Servicing	\$1,736.9	\$477.0	\$1,259.9
Wastewater Servicing	\$8,196.2	\$200.0	\$7,996.2
Total Water and Wastewater Servicing - Tavistock	\$9,933.1	\$677.0	\$9,256.1
Norwich			
Water Servicing	\$5,381.4	\$2,366.2	\$3,015.2
Wastewater Servicing	\$9,220.8	\$0.0	\$9,220.8
Total Water and Wastewater Servicing - Norwich	\$14,602.2	\$2,366.2	\$12,236.0
Thamesford			
Water Servicing	\$4,143.5	\$468.0	\$3,675.5
Wastewater Servicing	\$14,543.2	\$2,096.4	\$12,446.8
Total Water and Wastewater Servicing - Thamesford	\$18,686.6	\$2,564.4	\$16,122.2
All Areas			
Water Servicing	\$55,033.5	\$15,264.0	\$39,769.5
Wastewater Servicing	\$156,482.2	\$15,935.7	\$140,546.4
Total Water and Wastewater Servicing - All Areas	\$211,515.7	\$31,199.7	\$180,316.0
County-Wide Roads and Related	\$63,440.0	\$13,547.3	\$49,892.7
TOTAL COUNTY ENGINEERED SERVICES 2014 - 2041	\$274,955.6	\$44,747.0	\$230,208.6

Notes:

1) Also includes other recoveries

VI DEVELOPMENT CHARGES ARE CALCULATED IN ACCORDANCE WITH THE *DEVELOPMENT CHARGES ACT*

This section summarizes the calculation of development charges for each service category and the resulting total development charge by type of development. For general services, the calculation of the “unadjusted” per capita (residential) and per square metre (non-residential) charges is reviewed. Adjustments to these amounts resulting from a cash flow analysis that accounts for interest earnings and borrowing costs are also discussed.

For residential development, an adjusted total per capita amount is applied to different housing types on the basis of average occupancy factors. For non-residential development, the calculated development charges rates are based on gross floor area (GFA) of building space.

It is noted that the calculation of the development charges does not include any provision for exemptions required under the DCA, for example, the exemption for enlargements of up to 50 per cent on existing industrial buildings. Such legislated exemptions, or other exemptions which Council may choose to provide, will result in a loss of development charges revenue for the affected types of development. Any such revenue loss may not be offset, however, by increasing other portions of the calculated charge.

A. DEVELOPMENT CHARGES CALCULATION

A summary of the “unadjusted” residential and non-residential development charges for the County-wide general services is presented in Table 5. Further details of the calculation for each individual general service category are available in Appendix B.

1. General Services

The capital forecast for general services incorporates those projects identified to be related to growth anticipated in the next ten years. However, not all of the capital costs are to be recovered from new development by way of development charges. Table 5 shows that \$8.99 million of the capital forecast relates to replacement of existing capital facilities or to shares of projects that provide benefit to the existing community. These portions of capital costs would have to be funded from property taxes and other non-development charges revenue sources.

OXFORD COUNTY
SUMMARY OF UNADJUSTED RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
10-YEAR CAPITAL PROGRAM FOR GENERAL SERVICES

10 Year Growth in Population in New Units	12,154
10 Year Growth in Population in New Units (Less Woodstock)	5,603
10 Year Growth in Square Meters	480,950
10 Year Growth in Square Meters (Less Woodstock)	162,400

Service	Development-Related Capital Program (2014 - 2023)						Residential Share		Non-Residential Share	
	Net Municipal Cost (\$000)	Replacement & Benefit to Existing (\$000)	Required Service Discount (\$000)	Available DC Reserves (\$000)	Post-2023 Benefit (\$000)	Total DC Eligible Costs for Recovery (\$000)	%	(\$000)	%	(\$000)
	1.0 GENERAL GOVERNMENT	\$925.0	\$300.0	\$62.5	\$527.9	\$0.0	\$34.6	64%	\$22.1	36%
Unadjusted Development Charge Per Capita								\$1.82		
Unadjusted Development Charge Per Sq.M										\$0.03
2.0 LIBRARY SERVICES	\$2,213.1	\$729.9	\$148.3	\$345.7	\$386.9	\$602.3	100%	\$602.3	0%	\$0.00
Unadjusted Development Charge Per Capita								\$107.49		
Unadjusted Development Charge Per Sq.M										\$0.00
3.0 LAND AMBULANCE SERVICES	\$2,000.0	\$600.0	\$140.0	\$223.9	\$420.0	\$616.0	64%	\$394.3	36%	\$221.78
Unadjusted Development Charge Per Capita								\$32.44		
Unadjusted Development Charge Per Sq.M										\$0.46
4.0 ADMINISTRATION BUILDING	\$7,819.2	\$7,359.5	\$46.0	\$66.7	\$0.0	\$347.0	64%	\$222.1	36%	\$124.92
Unadjusted Development Charge Per Capita								\$18.27		
Unadjusted Development Charge Per Sq.M										\$0.26
TOTAL 10 YEAR GENERAL SERVICES	\$12,957.3	\$8,989.4	\$396.8	\$1,164.2	\$807.0	\$1,599.9		\$1,240.8		\$359.2
Unadjusted Development Charge Per Capita								\$160.02		
Unadjusted Development Charge Per Sq.M										\$0.75

An additional share of \$1.16 million has been identified as available DC reserves and represents the revenues collected from previous development charges. This portion has been netted out of the chargeable capital costs. Another share of the forecast, \$807,000, is either attributable to growth beyond the 2023 period (and can therefore only be recovered under future development charges studies) or represents a service level increase in the County.

The DCA, s. 5 (1) 8, requires that growth-related net capital costs for “soft” services be reduced by 10 per cent in calculating the applicable development charges for these services. The 10 per cent share of growth-related net capital costs not included in the development charges calculations must be funded from non-development charges sources. In total, about \$396,800 is identified as the required 10 per cent reduction.

The remaining \$1.60 million is carried forward to the development charges calculation as a development-related cost. Of the development-related cost, \$1.24 million has been allocated to new residential development, and \$359,200 has been allocated to new non-residential development based on anticipated shares of population and employment growth. This results in an unadjusted charge of \$160.02 per capita and \$0.75 per square metre for the provision of soft services.

2. Engineered Services

Table 6 displays the development-related capital forecast for Roads, Water, and Wastewater services from 2014 to 2041. The total gross cost of the capital program amounts to \$274.96 million. Approximately, \$44.75 million in grant, subsidies or other recoveries has been identified and removed from the program. About \$26.22 million has been identified as funds available in the DC reserves or monies previously allocated or committed towards the projects, and therefore, this amount is removed from the development charges calculation. In addition, \$86.76 million of the works is deemed to benefit the existing population and, as such, is also removed from the development charges calculation. Another portion of the program that is not included in the DC calculation is the share of the works that is considered to provide benefit to development beyond the DC Study’s planning horizon (2041). \$17.53 million is identified as the post-period benefit share. The remaining \$99.70 million is carried forward to the development charges calculation. As identified in Table 6, the \$99.70 million is the total costs eligible for DC recovery from all services areas combined, including County-wide roads and related services.

TABLE 6
COUNTY OF OXFORD
DEVELOPMENT-RELATED CAPITAL FORECAST
SUMMARY OF ENGINEERED SERVICES

	Development-Related Capital Forecast									
	Gross Cost (\$000)	Grants and Subsidies (\$000)	Prior Growth (Existing Reserve Fund) (\$000)	Benefit to Existing Share (\$000)	Post Period Benefit (\$000)	Total DC Eligible Costs for Recovery (\$000)	Residential Share		Non-Residential Share	
							%	\$000	%	\$000
Woodstock										
Water Servicing	\$22,486.7	\$4,024.6	\$5,063.8	\$735.1	\$0.0	\$12,663.2	75%	\$9,497.4	25%	\$3,165.8
Wastewater Servicing	\$30,845.5	\$5,097.9	\$4,559.4	\$7,307.1	\$0.0	\$13,881.1	75%	\$10,410.8	25%	\$3,470.3
Total Water and Wastewater Servicing - Woodstock	\$53,332.2	\$9,122.5	\$9,623.1	\$8,042.2	\$0.0	\$26,544.3		\$19,908.2		\$6,636.1
Tillsonburg										
Water Servicing	\$6,128.7	\$438.0	\$1,120.6	\$2,754.1	\$0.0	\$1,816.0	70%	\$1,271.2	30%	\$544.8
Wastewater Servicing	\$40,679.9	\$1,854.9	\$2,848.9	\$12,631.4	\$7,402.5	\$15,942.1	70%	\$11,159.5	30%	\$4,782.6
Total Water and Wastewater Servicing - Tillsonburg	\$46,808.6	\$2,292.9	\$3,969.6	\$15,385.5	\$7,402.5	\$17,758.1		\$12,430.6		\$5,327.4
Ingersoll										
Water Servicing	\$11,576.4	\$6,512.2	\$605.6	\$2,562.1	\$0.0	\$1,896.5	63%	\$1,194.8	37%	\$701.7
Wastewater Servicing	\$45,393.9	\$4,409.3	\$2,818.4	\$20,740.8	\$5,040.0	\$12,385.4	63%	\$7,802.8	37%	\$4,582.6
Total Water and Wastewater Servicing - Ingersoll	\$56,970.3	\$10,921.5	\$3,424.0	\$23,303.0	\$5,040.0	\$14,281.8		\$8,997.5		\$5,284.3
Plattsville										
Water Servicing	\$2,252.2	\$483.0	\$430.8	\$350.4	\$0.0	\$988.0	80%	\$790.4	20%	\$197.6
Wastewater Servicing	\$3,766.2	\$0.0	\$688.1	\$753.2	\$0.0	\$2,324.8	80%	\$1,859.8	20%	\$465.0
Total Water and Wastewater Servicing - Plattsville	\$6,018.4	\$483.0	\$1,119.0	\$1,103.7	\$0.0	\$3,312.8		\$2,650.2		\$662.6
Drumbo										
Water Servicing	\$1,327.8	\$495.0	\$201.3	\$631.5	\$0.0	\$0.0	90%	\$0.0	10%	\$0.0
Wastewater Servicing	\$3,836.5	\$2,277.2	\$399.6	\$540.8	\$0.0	\$618.9	90%	\$557.0	10%	\$61.9
Total Water and Wastewater Servicing - Drumbo	\$5,164.3	\$2,772.2	\$600.9	\$1,172.3	\$0.0	\$618.9		\$557.0		\$61.9
Tavistock										
Water Servicing	\$1,736.9	\$477.0	\$418.0	\$377.7	\$0.0	\$464.2	90%	\$417.8	10%	\$46.4
Wastewater Servicing	\$8,196.2	\$200.0	\$665.1	\$3,494.7	\$0.0	\$3,836.3	90%	\$3,452.7	10%	\$383.6
Total Water and Wastewater Servicing - Tavistock	\$9,933.1	\$677.0	\$1,083.1	\$3,872.4	\$0.0	\$4,300.5		\$3,870.5		\$430.1
Norwich										
Water Servicing	\$5,381.4	\$2,366.2	\$299.3	\$1,265.5	\$0.0	\$1,450.4	90%	\$1,305.4	10%	\$145.0
Wastewater Servicing	\$9,220.8	\$0.0	\$1,021.0	\$1,063.0	\$2,141.0	\$4,995.7	90%	\$4,496.1	10%	\$499.6
Total Water and Wastewater Servicing - Norwich	\$14,602.2	\$2,366.2	\$1,320.3	\$2,328.5	\$2,141.0	\$6,446.1		\$5,801.5		\$644.6
Thamesford										
Water Servicing	\$4,143.5	\$468.0	\$262.9	\$2,414.0	\$0.0	\$998.5	90%	\$898.7	10%	\$99.9
Wastewater Servicing	\$14,543.2	\$2,096.4	\$220.8	\$7,962.6	\$945.7	\$3,317.6	90%	\$2,985.9	10%	\$331.8
Total Water and Wastewater Servicing - Thamesford	\$18,686.6	\$2,564.4	\$483.7	\$10,376.6	\$945.7	\$4,316.1		\$3,884.5		\$431.6
All Areas										
Water Servicing	\$55,033.5	\$15,264.0	\$8,402.3	\$11,090.5	\$0.0	\$20,276.8		\$15,375.6		\$4,901.2
Wastewater Servicing	\$156,482.2	\$15,935.7	\$13,221.5	\$54,493.8	\$15,529.2	\$57,301.9		\$42,724.6		\$14,577.3
Total Water and Wastewater Servicing - All Areas	\$211,515.7	\$31,199.7	\$21,623.8	\$65,584.3	\$15,529.2	\$77,578.6		\$58,100.1		\$19,478.5
County-Wide Roads and Related	\$63,440.0	\$13,547.3	\$4,595.9	\$21,174.6	\$2,000.0	\$22,122.1	67%	\$14,821.8	33%	\$7,300.3
TOTAL COUNTY ENGINEERED SERVICES 2014 - 2041	\$274,955.6	\$44,747.0	\$26,219.7	\$86,758.9	\$17,529.2	\$99,700.8		\$72,922.0		\$26,778.8

Notes:

1) No legislated service discounts for water, wastewater or road projects.

3. Adjusted Residential and Non-Residential Development Charge Rates

Final adjustments to the “unadjusted” development charges rates are made through a cash flow analysis. The analysis, details of which are included in Appendix B for general services, and Appendix C for roads and related services, and Appendices D to K for all area-specific water and wastewater services, considers the borrowing cost and interest earnings associated with the timing of expenditures and development charges receipts for each service category.

Table 7 summarizes the results of the cash flow adjustments for the County-wide residential development charges rates. As shown, the adjusted per capita rate increases by \$172.96, from \$714.36 per capita to \$887.32 per capita after the cash flow analysis. Table 7 also provides the calculated rates by residential unit with the total charge per unit ranging from a high of \$2,604 for a single- and semi-detached unit to a low of \$1,065 for an apartment unit with less than two bedrooms. The charge for rows and other multiple units is \$1,801 and large apartments with more than two bedrooms are calculated at \$1,421.

The County-wide non-residential charge also experiences increases after cash flow considerations from \$8.69 to \$10.44 per square metre. This is displayed on Table 8.

Table 9 is a summary of the calculated water and wastewater rates for the various service areas in the County. Development not receiving County water and wastewater servicing would be levied at the rates shown in Table 7, the County-wide rates.

B. COMPARISON OF 2014 NEWLY CALCULATED DEVELOPMENT CHARGES WITH CHARGES CURRENTLY IN FORCE IN OXFORD

Tables 10 and 11 present a comparison of the newly calculated County-wide residential and non-residential development charges with currently imposed development charge rates. It demonstrates that the residential development charge rate for a single- or semi-detached unit increases by \$210 per unit, or nine per cent.

The current development charges rate for non-residential development will increase by \$4.72 per square metre, from \$5.72 to \$10.44 per square metre, or 83 per cent.

Table 12 presents a comparison of the newly calculated residential and non-residential development charges by Service Area with those currently in force in Oxford. As shown, the development charges rates are generally increasing in all service areas.

TABLE 7

**OXFORD COUNTY
COUNTY-WIDE DEVELOPMENT CHARGES
RESIDENTIAL DEVELOPMENT CHARGES BY UNIT TYPE**

Service	Unadjusted Charge Per Capita	Adjusted Charge Per Capita	Residential Charge By Unit Type (1)			
			Singles & Semis	Rows & Other Multiples	Apartments 2+ Bedrooms	Apartments Bachelor or 1 Bedroom
General Government	\$1.82	\$1.73	\$5	\$4	\$3	\$2
Library Services (1)	\$107.49	\$133.50	\$392	\$271	\$214	\$160
Land Ambulance Services	\$32.44	\$43.50	\$128	\$88	\$70	\$52
Administration Building	\$18.27	\$21.30	\$62	\$43	\$34	\$26
Roads And Related	\$554.34	\$687.29	\$2,017	\$1,395	\$1,100	\$825
TOTAL CHARGE PER UNIT	\$714.36	\$887.32	\$2,604	\$1,801	\$1,421	\$1,065
(1) Based on Persons Per Unit Of:			2.93	2.03	1.60	1.20

Note 1: The charge for Library Services is not applicable in Woodstock

TABLE 8

**OXFORD COUNTY
COUNTY-WIDE DEVELOPMENT CHARGES
NON-RESIDENTIAL DEVELOPMENT CHARGES PER SQUARE METRE**

Service	Non-Residential Charge	
	Unadjusted Charge per Square Metre	Non-Residential Charge
General Government	\$0.03	\$0.03
Library Services	\$0.00	\$0.00
Land Ambulance Services	\$0.46	\$0.62
Administration Building	\$0.26	\$0.31
Roads And Related	\$7.94	\$9.48
TOTAL CHARGE PER SQUARE METRE	\$8.69	\$10.44

**TABLE 9
COUNTY OF OXFORD
WATER AND WASTEWATER DEVELOPMENT CHARGES**

WOODSTOCK

Residential Development Charge Rates \$/unit					Non-Residential	
Service	Singles	Multiples	Large Apt	Small Apt	\$/Sq.M	\$/Sq.Ft.
Water	\$2,657	\$2,227	\$1,652	\$1,253	\$6.89	\$0.64
Wastewater	\$2,878	\$2,413	\$1,789	\$1,357	\$7.47	\$0.69
Total	\$5,535	\$4,640	\$3,441	\$2,610	\$14.36	\$1.33

TILLSONBURG

Residential Development Charge Rates \$/unit					Non-Residential	
Service	Singles	Multiples	Large Apt	Small Apt	\$/Sq.M	\$/Sq.Ft.
Water	\$1,277	\$1,202	\$874	\$656	\$6.62	\$0.62
Sewer	\$8,706	\$8,199	\$5,963	\$4,472	\$45.52	\$4.23
Total	\$9,983	\$9,401	\$6,837	\$5,128	\$52.14	\$4.84

INGERSOLL

Residential Development Charge Rates \$/unit					Non-Residential	
Service	Singles	Multiples	Large Apt	Small Apt	\$/Sq.M	\$/Sq.Ft.
Water	\$1,680	\$1,243	\$904	\$678	\$8.15	\$0.76
Sewer	\$9,931	\$7,348	\$5,344	\$4,008	\$48.15	\$4.47
Total	\$11,611	\$8,591	\$6,248	\$4,686	\$56.30	\$5.23

TAVISTOCK

Residential Development Charge Rates \$/unit					Non-Residential	
Service	Singles	Multiples	Large Apt	Small Apt	\$/Sq.M	\$/Sq.Ft.
Water	\$973	\$856	\$622	\$467	\$5.09	\$0.47
Sewer	\$9,723	\$8,556	\$6,222	\$4,667	\$50.83	\$4.72
Total	\$10,696	\$9,412	\$6,844	\$5,134	\$55.92	\$5.20

THAMESFORD

Residential Development Charge Rates \$/unit					Non-Residential	
Service	Singles	Multiples	Large Apt	Small Apt	\$/Sq.M	\$/Sq.Ft.
Water	\$2,103	\$1,432	\$1,042	\$781	\$8.70	\$0.81
Sewer	\$6,011	\$4,094	\$2,978	\$2,233	\$24.76	\$2.30
Total	\$8,114	\$5,526	\$4,020	\$3,014	\$33.46	\$3.11

NORWICH

Residential Development Charge Rates \$/unit					Non-Residential	
Service	Singles	Multiples	Large Apt	Small Apt	\$/Sq.M	\$/Sq.Ft.
Water	\$2,229	\$1,619	\$1,178	\$883	\$9.62	\$0.89
Sewer	\$8,164	\$5,931	\$4,314	\$3,235	\$35.25	\$3.27
Total	\$10,393	\$7,550	\$5,492	\$4,118	\$44.87	\$4.17

PLATTSVILLE

Residential Development Charge Rates \$/unit					Non-Residential	
Service	Singles	Multiples	Large Apt	Small Apt	\$/Sq.M	\$/Sq.Ft.
Water	\$4,151	\$2,468	\$1,795	\$1,346	\$33.02	\$3.07
Sewer	\$11,788	\$7,009	\$5,098	\$3,823	\$93.68	\$8.70
Total	\$15,939	\$9,477	\$6,893	\$5,169	\$126.70	\$11.77

DRUMBO

Residential Development Charge Rates \$/unit					Non-Residential	
Service	Singles	Multiples	Large Apt	Small Apt	\$/Sq.M	\$/Sq.Ft.
Water	\$0	\$0	\$0	\$0	\$0.00	\$0.00
Sewer	\$7,774	\$4,622	\$3,362	\$2,521	\$27.45	\$2.55
Total	\$7,774	\$4,622	\$3,362	\$2,521	\$27.45	\$2.55

TABLE 10

**OXFORD COUNTY
COMPARISON OF CURRENT AND CALCULATED
RESIDENTIAL DEVELOPMENT CHARGES**

Service	Current Residential Charge / SDU	Calculated Residential Charge / SDU	Difference in Charge	
General Government	\$8	\$5	(\$3)	-37.5%
Library Services (1)	\$766	\$392	(\$374)	-48.8%
Land Ambulance Services	\$81	\$128	\$47	58.0%
Administration Building	\$181	\$62	(\$119)	-65.7%
Roads And Related	\$1,358	\$2,017	\$659	48.5%
TOTAL CHARGE PER UNIT	\$2,394	\$2,604	\$210	8.8%

Note 1: The charge for Library Services is not applicable in Woodstock

TABLE 11

**OXFORD COUNTY
COMPARISON OF CURRENT AND CALCULATED
NON-RESIDENTIAL DEVELOPMENT CHARGES**

Service	Non-Residential (\$/Square Metre)			
	Current Non-Residential Charge	Calculated Non-Residential Charge	Difference in Charge	
General Government	\$0.03	\$0.03	\$0.00	0.0%
Library Services	\$0.00	\$0.00	\$0.00	0.0%
Land Ambulance Services	\$0.30	\$0.62	\$0.32	106.7%
Administration Building	\$0.68	\$0.31	(\$0.37)	-54.4%
Roads And Related	\$4.71	\$9.48	\$4.77	101.3%
TOTAL CHARGE PER SQUARE METRE	\$5.72	\$10.44	\$4.72	82.5%

TABLE 12

COUNTY OF OXFORD
AREA-SPECIFIC DEVELOPMENT CHARGES
COMPARISON OF EXISTING AND PROPOSED
RESIDENTIAL AND NON-RESIDENTIAL CHARGES

Residential - Charge Per Single Detached Unit	WOODSTOCK ¹	TILLSONBURG	INGERSOLL	TAVISTOCK	NORWICH	DRUMBO	THAMESFORD	PLATTSVILLE	BLANFORD-BLENHEIM	EAST ZORRA-TAVISTOCK	ZORRA	SOUTH-WEST OXFORD
CALCULATED COUNTY-WIDE SERVICES	\$2,212	\$2,604	\$2,604	\$2,604	\$2,604	\$2,604	\$2,604	\$2,604	\$2,604	\$2,604	\$2,604	\$2,604
CALCULATED COUNTY WATER	\$2,657	\$1,277	\$1,680	\$973	\$2,229	\$0	\$2,103	\$4,151	n/a	n/a	n/a	n/a
CALCULATED COUNTY WASTEWATER	\$2,878	\$8,706	\$9,931	\$9,723	\$8,164	\$7,774	\$6,011	\$11,788	n/a	n/a	n/a	n/a
TOTAL CALCULATED CHARGE (\$/sdu)	\$7,747	\$12,587	\$14,215	\$13,300	\$12,997	\$10,378	\$10,718	\$18,543	\$2,604	\$2,604	\$2,604	\$2,604
EXISTING COUNTY-WIDE SERVICES	\$1,628	\$2,394	\$2,394	\$2,394	\$2,394	\$2,394	\$2,394	\$2,394	\$2,394	\$2,394	\$2,394	\$2,394
EXISTING COUNTY WATER	\$2,488	\$2,158	\$2,349	\$3,410	\$1,228	\$4,209	\$1,942	\$5,894	n/a	n/a	n/a	n/a
EXISTING COUNTY WASTEWATER	\$3,063	\$7,532	\$7,274	\$7,136	\$8,507	\$3,349	\$6,142	\$10,238	n/a	n/a	n/a	n/a
TOTAL EXISTING CHARGE (\$/sdu)	\$7,179	\$12,084	\$12,017	\$12,940	\$12,129	\$9,952	\$10,478	\$18,526	\$2,394	\$2,394	\$2,394	\$2,394
<i>Difference in Charge (\$)</i>	\$568	\$503	\$2,198	\$360	\$868	\$426	\$240	\$17	\$210	\$210	\$210	\$210
<i>Difference in Charge (%)</i>	8%	4%	18%	3%	7%	4%	2%	0%	9%	9%	9%	9%

Note 1: County-wide Library services are not applicable in Woodstock

Non-Residential - Charge Per Square Metre of GFA	WOODSTOCK	TILLSONBURG	INGERSOLL	TAVISTOCK	NORWICH	DRUMBO	THAMESFORD	PLATTSVILLE	BLANFORD-BLENHEIM	EAST ZORRA-TAVISTOCK	ZORRA	SOUTH-WEST OXFORD
CALCULATED COUNTY-WIDE SERVICES	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44	\$10.44
CALCULATED COUNTY WATER	\$6.89	\$6.62	\$8.15	\$5.09	\$9.62	\$0.00	\$8.70	\$33.02	n/a	n/a	n/a	n/a
CALCULATED COUNTY WASTEWATER	\$7.47	\$45.52	\$48.15	\$50.83	\$35.25	\$27.45	\$24.76	\$93.68	n/a	n/a	n/a	n/a
TOTAL CALCULATED CHARGE (\$/sq.m.)	\$24.80	\$62.58	\$66.74	\$66.36	\$55.31	\$37.89	\$43.90	\$137.14	\$10.44	\$10.44	\$10.44	\$10.44
EXISTING COUNTY-WIDE SERVICES	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72	\$5.72
EXISTING COUNTY WATER	\$8.60	\$7.20	\$7.45	\$15.32	\$5.19	\$15.77	\$7.35	\$41.63	n/a	n/a	n/a	n/a
EXISTING COUNTY WASTEWATER	\$10.62	\$25.77	\$23.03	\$32.07	\$35.70	\$12.51	\$23.22	\$72.30	n/a	n/a	n/a	n/a
TOTAL EXISTING CHARGE (\$/sq.m.)	\$24.94	\$38.69	\$36.20	\$53.11	\$46.61	\$34.00	\$36.29	\$119.65	\$5.72	\$5.72	\$5.72	\$5.72
<i>Difference in Charge (\$)</i>	(\$0.14)	\$23.89	\$30.54	\$13.25	\$8.70	\$3.89	\$7.61	\$17.49	\$4.72	\$4.72	\$4.72	\$4.72
<i>Difference in Charge (%)</i>	-1%	62%	84%	25%	19%	11%	21%	\$0.15	83%	83%	83%	83%

VII LONG-TERM CAPITAL AND OPERATING COSTS

This section provides a brief examination of the long-term capital and operating costs for the capital facilities and infrastructure to be included in the development charges by-law. This examination is required as one of the features of the *Development Charges Act, 1997*.

A. NET OPERATING COSTS FOR THE COUNTY'S SERVICES TO INCREASE OVER THE FORECAST PERIOD

Table 13 summarizes the estimated increase in net operating costs that the County will experience for additions associated with the planned capital program. The estimated changes in net operating costs are based on historical average costs (additional details are included in Appendix M).

As shown in Table 13, by 2023 the County's net operating costs are estimated to increase by about \$947,600. The increase relates to the construction of the new roads.

B. LONG-TERM CAPITAL FINANCING FROM NON-DEVELOPMENT CHARGES SOURCES TOTALS \$25.80 MILLION

As discussed in Section VI, Table 13 also summarizes the components of the development-related capital forecast that will require funding from non-development charges sources. Of the \$52.32 million net capital forecast, about \$25.79 million will need to be financed from non-development charges sources over the next 10 years. This includes about \$396,800 in respect of the 10 per cent discount required by the DCA for "soft" services and about \$25.40 million for shares of projects related to capital replacement and for non-growth shares of projects that provide benefit to the existing community. It should be noted, the non-growth shares identified include roads and related works, and in some cases account for works which have already been undertaken by the County. In addition, \$807,000 in interim financing may be required for projects related to development in the post-2023 period. It is likely that most of these monies could be recovered from future development charges as the by-laws are revisited at least every five years.

TABLE 13

OXFORD COUNTY
SUMMARY OF LONG TERM CAPITAL AND
OPERATING COST IMPACTS FOR ALL COUNTY-WIDE SERVICES
(in thousands of constant dollars)

Cumulative Net Operating Impacts	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Net Operating Impacts (1)											
General Government	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Library Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Land Ambulance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Administration Building	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Roads and Related	\$96.8	\$194.8	\$294.0	\$389.4	\$485.8	\$583.4	\$682.2	\$782.0	\$864.4	\$947.6	
NET OPERATING IMPACTS	\$96.8	\$194.8	\$294.0	\$389.4	\$485.8	\$583.4	\$682.2	\$782.0	\$864.4	\$947.6	n/a
Long-term Capital Impact (1)											
Total Net Cost	\$26,837.6	\$4,951.8	\$4,876.8	\$4,326.8	\$4,336.8	\$4,041.8	\$737.4	\$737.4	\$707.5	\$767.5	\$52,321.4
Net Cost From Development Charges	\$6,566.3	\$2,442.1	\$2,442.1	\$2,465.1	\$2,465.1	\$2,424.7	\$299.7	\$299.7	\$272.7	\$280.3	\$19,957.7
Prior Growth Share from DC Reserve Balances (2)	\$4,757.4	\$162.2	\$94.7	\$108.3	\$117.3	\$310.8	\$40.8	\$40.8	\$40.8	\$87.2	\$5,760.1
Portion for Post-2023 Development (3)	\$80.7	\$80.7	\$80.7	\$80.7	\$80.7	\$80.7	\$80.7	\$80.7	\$80.7	\$80.7	\$807.0
Funding From Non-DC Sources											
Discount Portion	\$75.7	\$37.2	\$29.7	\$37.2	\$38.2	\$59.7	\$29.7	\$29.7	\$26.7	\$32.7	\$396.8
Replacement	\$15,503.5	\$2,200.3	\$2,200.3	\$1,606.3	\$1,606.3	\$1,136.7	\$286.6	\$286.6	\$286.6	\$286.6	\$25,399.8
FUNDING FROM NON-DC SOURCES	\$15,579.2	\$2,237.6	\$2,230.1	\$1,643.6	\$1,644.6	\$1,196.5	\$316.3	\$316.3	\$313.3	\$319.3	\$25,796.5

Notes:

(1) See Appendix M

(2) Existing development charge reserve fund balances collected from growth prior to 2014 are applied to fund initial projects in development-related capital forecast

(3) Post 2023 development-related net capital costs may be eligible for development charge funding in future DC by-laws

VIII LOCAL SERVICE GUIDELINES

The following guidelines set out in general terms the size and scope of infrastructure to be included in the County of Oxford's Development Charges Background Study as well as infrastructure that is deemed to be a "local service", that is to be installed or paid for by the landowner as a condition of approval under sections 51 or 53 of the *Planning Act*. It is noted that the guidelines are:

- general principles by which County staff will be guided in considering development applications. However, each application will be considered on its own merits having regard to, among other factors including these guidelines: the nature, type and location of existing and proposed development; the location and type of services required for existing and proposed development; and the requirements of subsection 59(2) of the *DCA*.
- subject to review and amendment by the County which may be independent of an amendment or update to the County's development charge by-law.

A. LOCAL SERVICE DEFINITIONS

The following provides the definition of "local service" under the *DCA* for a number of services provided by the County of Oxford. The purpose of establishing these definitions is to determine the eligible capital costs for inclusion in the development charges (DC) calculation for the County. The functions or services deemed to be local in nature are not to be included in the determination of the development charges rates. The provision of local services is considered to be a direct developer responsibility under s.59 of the *DCA* and will (or may) be recovered under other agreement(s) with the landowner or developer. The issue of "local services" is being specifically considered for the services of:

- Roads and Related Services
- Water Services
- Wastewater Services
- Stormwater Services
- Parkland Development

1. Roads and Related Services

- Collector Roads
 - The local component of a collector road internal to a development is a direct developer responsibility under s.59 of the *DCA* as a local service. The oversized share of a collector road internal to a development is development charge recoverable.
 - Collector roads external to a development are a local service if the works are within the area to which the plan relates and, therefore, a direct developer responsibility under s.59 of the *DCA*. Otherwise, the works are included in the DC calculation to the extent permitted under s.5(1) of the *DCA*.
- Arterial Roads
 - New arterial roads and arterial road improvements are included as part of road costing funded through DCs. Only the oversizing component would be recovered through DCs and local road equivalent costs are considered to be a local service.
- Local Roads
 - Local roads, as defined by the municipalities' engineering standards, are local services and a direct developer responsibility under s.59 of the *DCA*.
- Subdivision/Site Entrances and Related
 - Entrances and all related costs (including, but not limited to: signalization, turn lanes, utilities and extensions, etc.), no matter the class of road, are a local service and a direct developer responsibility under s.59 of the *DCA*.
- Streetlights
 - Streetlights internal to a development or site are a direct developer responsibility through local service provisions (s.59 of the *DCA*).
 - Streetlights external to a development but related to the subject lands are a direct developer responsibility through local service provisions (s.59 of the *DCA*).
 - New streetlights in other areas related to development may be included in the DC calculation to the extent permitted under S. 5(1) of the *DCA*.

- Sidewalks
 - Sidewalks internal to a development or site are a direct developer responsibility through local service provisions (s.59 of the *DCA*).
 - Sidewalks external to a development but required and related to the subject lands are a direct developer responsibility through local service provisions (s.59 of the *DCA*).
 - New sidewalks in other areas related to development are included in the DC calculation to the extent permitted under s.5(1) of the *DCA*.
- Bike or Transit Lanes
 - Bike or transit lanes, where requested, internal to a development or site are a direct developer responsibility through local service provisions (s.59 of the *DCA*).
 - Bike or transit lanes external to a development but required and related to the subject lands are a direct developer responsibility through local service provisions (s.59 of the *DCA*).
 - New bike or transit lanes in other areas related to development are included in the DC calculation to the extent permitted under s.5(1) of the *DCA*.
- Noise Abatement Measures
 - Noise abatement measures internal to a development are a direct developer responsibility through local service provisions (s.59 of the *DCA*).
 - Noise abatement measures external to a development but required and related to, or mitigate impacts from, the development of the subject lands, are a direct developer responsibility through local service provisions (s.59 of the *DCA*).
- Street Tree Planting
 - Street tree planting, as required in the Engineering Standards, is considered a local area service and a direct responsibility of the developer.
- Land Acquisition for Road Allowances
 - Land acquisition for planned road allowances within development lands is a dedication under the *Planning Act* provisions.

- Land acquisition for planned road allowances outside of development lands, and that is not a dedication under the *Planning Act*, is included in the DC calculation to the extent permitted under s.5(1) of the *DCA*.
- Additional land acquisition for bridges or grade separations (beyond normal dedication requirements) is to the extent eligible as identified and included, if applicable, in the Development Charges Background Study.
- County Roads

The definition of a “local service” with respect to County roads is as follows:

- All improvements to a County road to facilitate development are considered local services to be paid by the developer unless they fall into one of the following categories:
- The improvement is designated as required for traffic flow improvement for an area greater than the development, is defined as a road improvement required by the County, and is identified through the Class Environmental Assessment process or the County Transportation study. Such an improvement would be listed in the Development Charges Background Study.
- The improvement is designated as required by County of Oxford staff to serve a greater area than the development and is identified in the 5 year Capital Works forecast and is listed in the Development Charges Background Study.
- The improvement is designated as required by County of Oxford staff to serve a greater area than the development and is identified in the capital works forecast or similar County financial documents, and is listed in the development charges study.

2. Water Services

The definition of a “local service” with respect to water services is as follows:

- All growth-related water supply, storage, treatment facilities and booster pumping stations will be included in the development charge calculation, unless specifically noted otherwise in the Development Charges Study.
- Watermains within the development that are larger than 250 mm are to be included in the development charge calculation. The amount of cost contribution for watermains within a development shall be calculated using tendered unit prices and shall be the difference between the cost of the actual pipe diameter and the cost of a 250mm pipe diameter including a 10% engineering fee. Only watermain

and valves will be included in the calculation. Any costs related to the depth of pipe are the responsibility of the developer.

- Water mains 250mm and under are deemed to be a local service and are a direct funding responsibility of the developer.
- Connections to trunk mains and pumping stations to service specific areas are to be a direct developer responsibility. Watermains will generally be required to be carried to a property line or external to the subdivision to connect to an existing watermain as a local service as a direct funding responsibility of the developer.
- Trunk watermains, generally outside the development area, identified by a Class Environmental Assessment, Servicing Study or by County staff will be included in the development charge calculation.

3. Wastewater Services

The definition of a “local service“ with respect to wastewater services is as follows:

- All sanitary sewage treatment facilities are to be included in the development charge calculation, unless specified otherwise in the Development Charges study.
- Major sanitary trunk sewers, external to the development, and major pumping stations serving more than one development are to be included in the development charge calculation. These services will be identified through a Class Environmental assessment, Servicing Study or by County staff.
- Sewer collectors 250mm and under are deemed to be a local service and are a direct funding responsibility of the developer. Sanitary sewers larger than 250mm that also service upstream properties will have cost sharing calculated on the tendered unit prices and shall be the difference between the cost of the actual pipe diameter and the cost of a 250mm pipe including a 10% engineering fee. All other appurtenances with respect to oversizing and any costs related to the depth of pipe are the responsibility of the developer.
- Connections to collectors and pumping stations to service specific areas are to be a direct developer responsibility. The cost of continuing the last run of a sewer upstream past the last manhole to property line is the responsibility of the developer as a local service.
- Local pumping stations serving a small localized area (which may include more than one development property) are local services to be paid by the developer or developers on a flow area or proportional basis. Local pumping stations will not be included in the list of projects in the DC background study and therefore not eligible for development charge funding or credits.

- Any oversizing costs for other developers on a local pumping station will be negotiated as part of the development agreement for the particular developer.

4. Stormwater Management Services

- The costs of stormwater management (SWM) facilities internal to subdivision and related to a plan of subdivision are considered to be a local service under the DCA and the associated costs are not included in the development charges calculation. Local SWM facilities would typically include:
 - Stormwater management facilities servicing local drainage areas;
 - Storm sewer oversizing associated with local drainage areas; and
 - Storm sewer works on existing roads.
- New stormwater facilities in other areas, which may or may not be associated with DC eligible road infrastructure, may be included in the development charge calculation.
- Master drainage planning studies or similar non-development specific studies may be included in the DC calculation.

5. Parkland Development

- For the purpose of parkland development, local services include the requirement for the owner to undertake preparation of the park plan, retaining necessary consultants to prepare design and grading plans for the park, prior to development. In addition, the owner is required to provide stripping and stockpiling, leveling, topsoiling, seeding and stormwater servicing including all appurtenances (consistent with the plan), fencing the property perimeter, and provide municipal water and wastewater services to the lot line. These requirements are part of the conditions of s.51 and 53 *Planning Act* agreements. The municipality also requires the owner to dedicate parkland or provide cash-in-lieu, consistent with the *Planning Act* provisions. All of these costs are deemed a direct responsibility of the developer and have not been included in the development charge calculation.
- With respect to other parkland development costs, the municipal policy is to include all other components of parkland development in the DC calculation, including parking, park furniture, signage, landscaping and walkways and multi-purpose trails, in addition to the necessary fields, diamonds, playground equipment, lighting, irrigation and field houses.

APPENDIX A

DEVELOPMENT FORECAST

APPENDIX A

GROWTH FORECAST

This appendix provides the details of the development forecast that was used to prepare development charges for the County of Oxford and participating area municipalities. The forecast method and the key assumptions are discussed and the results are provided in a series of tables.

The forecasts of population, households and employment are based on the County forecasts in the *Oxford County Population, Households and Employment Forecasts and Employment Lands Study* dated March 5, 2014 (*Oxford County Forecasts*). The report was prepared by Watson & Associates Economists Ltd.

A. FORECAST METHOD & DATA SOURCES

The *Development Charges Act (DCA)* requires the County to estimate “the anticipated amount, type and location of development” for which development charges may be imposed. The development forecast must cover both residential and non-residential development and be specific enough with regards to quantum, type, location and timing of development to allow the County to prepare a reasonable development-related capital program. A ten-year growth forecast, from 2014 to 2023, has been used to calculate the development charges for the general services in the County. For the engineered services of roads and related works, water, and wastewater, a long-range forecast, from 2014 to 2041 has been used.

The definition of population used for the purposes of the development charges study incorporates population recorded in the Census (“Census population”). This definition does not include the Census net under-coverage (about 2.4% of the Census population), which represents those who were missed by the Census.

Employment figures used in the study represent Statistics Canada place of work data. Place of work data records where people work rather than their place of residence. Following the County growth forecast work, employment is categorized as primary, commercial/population-related, work at home, institutional, industrial, and other. However, employment figures have been adjusted to incorporate employees with no fixed address which, for the purposes of the development charge calculation, is considered to require building for space for its activities.

Development charges are levied on residential development as a charge per new unit. Therefore, for the residential forecast, a projection of both the *population growth*¹ as well as the *population in new units* is required.

- The *population growth* determines the need for additional facilities and provides the foundation for the development-related capital program.
- When calculating the development charge, however, the development-related net capital costs are spread over the total additional population that occupy new housing units. This *population in new units* represents the population from which development charges will be collected.

Development charges are levied on non-residential development as a charge per unit of gross floor area (GFA). As with the residential forecast, the non-residential forecast requires both a projection of employment growth as well as a projection of new floor space associated with that growth.

B. FORECAST RESULTS

The County's historical population, households, and employment from 2001 to 2013 are provided in Tables A.1 and A.2. Average household sizes and activity rates are also provided. Historic growth levels shown in the tables are used to determine the average service levels attained in the County over the last ten years (2004-2013).

Historical data indicates the County's population has increased from 99,300 in 2001 to 107,100 in 2013 – about 7,800 people or 8 per cent. Household growth has been faster over the same period, increasing by about 5,200 households, or 14 per cent. Employment has remained steady, adding an average of 860 jobs per year between 2001 and 2013. The majority of new housing constructed since 2006, as indicated by historic residential building permit records, (74 per cent) has taken the form of single and semi-detached unit forms.

Tables A.4 and A.5 summarize the population and household forecast for the County between 2014 and 2041 as set out in the *Oxford County Forecasts*. The County is forecast to grow by about 7,000 persons, 4,700 households and 6,800 jobs over the 10-year period from 2014 to 2023. By 2031, the County will have grown by approximately 12,000 persons, 7,900 households and 10,600 jobs. Finally, between 2014 and 2041, 15,800 persons, 10,400 households and 12,900 jobs will be added to the County of Oxford.

¹ Commonly referred to as “net population growth” in the context of development charges

The housing unit (by type) and population in new unit forecast is shown in Table A.6 and A.7 respectively. Population growth in new units is estimated by applying the following persons per unit (PPU) to the housing unit forecast: 2.93 for single and semi-detached units; 2.03 for rows and other multiples; and 1.30 for apartments. The PPU estimates are based upon the occupancy patterns of similar unit types constructed in the County in recent years (see Table A.3) and are consistent with those used in the previous *Development Charges Background Study* (May, 2009). The total population growth in new units is forecast at approximately 12,200 over the ten year period, 20,300 between 2014 and 2031, and 26,700 to 2041.

Employment forecasts used in the development charges study are also based on the *Oxford County Forecasts*. Employment figures in the *Oxford County Forecast* amount for employment by place of work. For development charge purposes, the forecasts have been adjusted to incorporate employees with no fixed address. Employment in the County is expected to increase by 12 per cent over the ten-year period, rising from 58,400 in 2013 to 65,200 in 2023. This represents a net increase of 6,800 jobs (see Tables A.4 and A.5).

The development charges calculation for non-residential development is based on floor space. Approximately 480,950 square metres of new floor space are forecast to be added in the 2014 – 2023 period, 752,700 in the period from 2014 to 2031, and 919,300 to 2041. Table A.8 provides a breakdown of the non-residential floor space forecast by type.

C. AREA MUNICIPAL FORECASTS

Area-specific charges for water and wastewater are based on forecasts of growth in the County's water and wastewater service areas (i.e. the area municipalities). The area municipal growth forecasts also serve as the basis for the calculation of new development charge rates for those area municipalities that are renewing their development charge rates by-laws concurrently with the County. The population, household and employment forecasts for all area municipalities are summarized in Table A.9.

D. FORECAST TABLES

The forecast results are presented in nine tables:

Table A.1: Provides the historical population, household and employment forecasts annually from 2001 to 2013;

Table A.2: Summarizes the 2006 – 2013 historical residential building permit data by unit type;

Table A.3: Sets out the historical population and households by period of construction based on a special Census data tabulation by Statistics Canada;

Tables A.4 and A.5: Provide the forecast of population, households and housing units, and employment from 2011 to 2041;

Tables A.6 and A.7: Provide the housing unit forecast by unit type: singles/semis, rows/other multiples, and apartments, as well as the potential population in new units from 2011 to 2041;

Table A.8: Displays the estimated increase in non-residential gross floor area (GFA) in square metres that will be constructed to accommodate the forecast in new employment;

Table A.9: Summarizes the population, households, and employment forecasts for all participating area municipalities.

OXFORD COUNTY 2014 DEVELOPMENT CHARGES STUDY

TABLE A.1
Historic Population, Dwellings & Employment

Mid-Year	Census Population	Growth	Total Occupied Dwellings	Growth	HH Size	Growth Forecast Employment Numbers	No-Fixed Address Employment	Employment Used for DC Calculations	Growth	Activity Rate
2001	99,270		37,270		2.66	44,155	3,905	48,060		48.4%
2002	99,958	688	37,674	404	2.65	44,981	4,002	48,983	923	49.0%
2003	100,650	692	38,083	409	2.64	45,822	4,101	49,923	940	49.6%
2004	101,347	697	38,496	413	2.63	46,679	4,203	50,882	959	50.2%
2005	102,049	702	38,913	417	2.62	47,552	4,307	51,859	977	50.8%
2006	102,756	707	39,335	422	2.61	48,440	4,415	52,855	996	51.4%
2007	103,342	586	39,769	434	2.60	49,140	4,535	53,675	820	51.9%
2008	103,931	589	40,208	439	2.58	49,851	4,659	54,510	835	52.4%
2009	104,524	593	40,652	444	2.57	50,572	4,786	55,358	848	53.0%
2010	105,120	596	41,101	449	2.56	51,303	4,916	56,219	861	53.5%
2011	105,719	599	41,555	454	2.54	52,045	5,050	57,095	876	54.0%
2012	106,396	677	42,027	472	2.53	52,629	5,107	57,736	641	54.3%
2013	107,078	682	42,505	478	2.52	53,219	5,164	58,383	647	54.5%

Source: Watson & Associates Economists Ltd, 2013

Note: Activity Rate represents the ratio between total employment and Census population.

Note: Census Population does not include Census net undercoverage of roughly 2.4%.

OXFORD COUNTY 2014 DEVELOPMENT CHARGES STUDY

TABLE A.2
Historic Residential Building Permits

Year	Building Permits			
	Singles/Semis	Rows	Apts.	Total
2006	414	31	151	596
2007	486	79	11	576
2008	360	76	130	566
2009	356	2	58	416
2010	448	54	46	548
2011	345	32	75	452
2012	423	93	208	724
2013	284	21	43	348
Total	3,116	388	722	4,226
<i>Average '02-'13</i>	<i>390</i>	<i>49</i>	<i>90</i>	<i>528</i>
<i>Average '09-'13</i>	<i>371</i>	<i>40</i>	<i>86</i>	<i>498</i>

Historic Building Permits - Shares By Unit Type

Mid-Year	Building Permits			
	Singles/Semis	Rows	Apts.	Total
2006	69%	5%	25%	100%
2007	84%	14%	2%	100%
2008	64%	13%	23%	100%
2009	86%	0%	14%	100%
2010	82%	10%	8%	100%
2011	75%	6%	19%	100%
2012	56%	12%	32%	100%
2013	82%	6%	12%	100%
Total	74%	9%	17%	100%

Source: Stats Can, Building Permit Data and Watson & Associates Economists, Ltd.

OXFORD COUNTY 2014 DEVELOPMENT CHARGES STUDY

TABLE A.3
Historic Households by Period of Construction Showing Household Size

	Period of Construction										Pre 2001	2001-2011	Total
	Pre 1945	1946-1960	1961-1970	1971-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005	2006-2011			
Singles & Semis													
Household Population	22,305	13,350	10,250	11,790	3,015	5,535	5,335	5,300	5,645	5,945	76,880	11,590	88,470
Households	7,980	5,305	3,925	4,425	1,115	2,090	1,855	1,995	1,900	2,050	28,690	3,950	32,640
Household Size	2.80	2.52	2.61	2.66	2.70	2.65	2.88	2.66	2.97		2.68	2.93	2.71
Rows													
Household Population	285	265	660	980	860	1,070	555	470	380	350	5,145	730	5,875
Households	130	120	245	415	340	405	240	220	205	200	2,115	405	2,520
Household Size	2.19	2.21	2.69	2.36	2.53	2.64	2.31	2.14	1.85		2.43	1.80	2.33
Apartments													
Household Population	2,595	985	1,405	1,535	435	630	525	315	505	595	8,425	1,100	9,525
Households	1,520	700	985	930	350	520	365	205	315	385	5,575	700	6,275
Household Size	1.71	1.41	1.43	1.65	1.24	1.21	1.44	1.54	1.60		1.51	1.57	1.52
All Units													
Household Population	25,185	14,600	12,315	14,305	4,310	7,235	6,415	6,085	6,530	6,890	90,450	13,420	103,870
Households	9,630	6,125	5,155	5,770	1,805	3,015	2,460	2,420	2,420	2,635	36,380	5,055	41,435
Household Size	2.62	2.38	2.39	2.48	2.39	2.40	2.61	2.51	2.70	2.61	2.49	2.65	2.51

Source: Statistics Canada, 2011 Census Special Run

OXFORD COUNTY 2014 DEVELOPMENT CHARGES STUDY

TABLE A.4
Population, Household & Employment Forecast Summary

Mid-Year	Census Population	Singles & Semis	Rows & Other Multiples	Apartments	Other	Total Occupied Dwellings	Growth Forecast Employment Numbers	No-Fixed Address	Employment Used for DC Calculations	HH Size	Activity Rate
2011	105,719	32,450	3,150	5,460	495	41,555	52,045	5,050	57,095	2.54	44.3%
2012	106,396	32,787	3,202	5,543	495	42,027	52,629	5,107	57,736	2.53	54.3%
2013	107,078	33,127	3,255	5,628	495	42,505	53,219	5,164	58,383	2.52	54.5%
2014	107,764	33,471	3,309	5,714	495	42,989	53,816	5,222	59,038	2.51	54.8%
2015	108,455	33,819	3,364	5,801	495	43,479	54,420	5,281	59,701	2.49	55.0%
2016	109,150	34,170	3,420	5,890	495	43,975	55,030	5,340	60,370	2.48	45.5%
2017	109,872	34,515	3,482	5,960	495	44,452	55,688	5,403	61,091	2.47	55.6%
2018	110,599	34,863	3,545	6,031	495	44,934	56,354	5,468	61,822	2.46	55.9%
2019	111,331	35,215	3,609	6,103	495	45,422	57,028	5,533	62,561	2.45	56.2%
2020	112,068	35,571	3,674	6,176	495	45,916	57,710	5,599	63,309	2.44	56.5%
2021	112,810	35,930	3,740	6,250	495	46,415	58,400	5,667	64,067	2.43	56.8%
2022	113,453	36,227	3,796	6,309	495	46,827	58,898	5,715	64,613	2.42	57.0%
2023	114,099	36,527	3,853	6,368	495	47,243	59,401	5,764	65,165	2.42	57.1%
2024	114,749	36,829	3,911	6,428	495	47,663	59,908	5,813	65,721	2.41	57.3%
2025	115,403	37,133	3,970	6,489	495	48,087	60,419	5,863	66,282	2.40	57.4%
2026	116,060	37,440	4,030	6,550	495	48,515	60,935	5,913	66,848	2.39	57.6%
2027	116,656	37,706	4,085	6,601	495	48,887	61,318	5,950	67,268	2.39	57.7%
2028	117,255	37,974	4,140	6,653	495	49,262	61,704	5,987	67,691	2.38	57.7%
2029	117,857	38,244	4,196	6,705	495	49,640	62,092	6,025	68,117	2.37	57.8%
2030	118,462	38,516	4,253	6,757	495	50,021	62,482	6,063	68,545	2.37	57.9%
2031	119,070	38,790	4,310	6,810	495	50,405	62,875	6,101	68,976	2.36	57.9%
2032	119,511	38,992	4,351	6,853	495	50,691	63,153	6,128	69,281	2.36	58.0%
2033	119,953	39,195	4,393	6,897	495	50,980	63,432	6,155	69,587	2.35	58.0%
2034	120,397	39,399	4,435	6,941	495	51,270	63,712	6,182	69,894	2.35	58.1%
2035	120,843	39,604	4,477	6,985	495	51,561	63,993	6,209	70,202	2.34	58.1%
2036	121,290	39,810	4,520	7,030	495	51,855	64,275	6,237	70,512	2.34	58.1%
2037	121,596	39,959	4,552	7,062	495	52,068	64,422	6,251	70,673	2.34	58.1%
2038	121,903	40,108	4,584	7,094	495	52,281	64,570	6,265	70,835	2.33	58.1%
2039	122,211	40,258	4,616	7,126	495	52,495	64,718	6,279	70,997	2.33	58.1%
2040	122,520	40,409	4,648	7,158	495	52,710	64,866	6,293	71,159	2.32	58.1%
2041	122,830	40,560	4,680	7,190	495	52,925	65,015	6,308	71,323	2.32	58.1%

Source: Watson & Associates Economists Ltd., 2013

*Growth Forecast + No Fixed

Note: Growth Forecast Employment Numbers derived from the 2013 Population, Household and Employment Forecasts and Employment Lands Study by Watson & Associates

OXFORD COUNTY 2014 DEVELOPMENT CHARGES STUDY

TABLE A.5
Forecast Population & Household Growth Summary

Mid-Year	Census Pop'n Growth	Total Occupied Dwellings Growth	Employment by POW Growth
2013	682	478	647
2014	686	484	655
2015	691	490	663
2016	695	496	669
2017	722	477	721
2018	727	482	731
2019	732	488	739
2020	737	494	748
2021	742	499	758
2022	643	412	546
2023	646	416	552
2024	650	420	556
2025	654	424	561
2026	657	428	566
2027	596	372	420
2028	599	375	423
2029	602	378	426
2030	605	381	428
2031	608	384	431
2032	441	286	305
2033	442	289	306
2034	444	290	307
2035	446	291	308
2036	447	294	310
2037	306	213	161
2038	307	213	162
2039	308	214	162
2040	309	215	162
2041	310	215	164
2014-2023	7,021	4,738	6,782
2014-2031	11,992	7,900	10,593
2014-2041	15,752	10,420	12,940

Source: Watson & Associates Economists Ltd., 2013

TABLE A.6
Growth in Households by Unit Type

Mid-Year	Singles & Semis	Rows & Other Multiples	Apartments	Total New Households
2013	340	53	85	478
2014	344	54	86	484
2015	348	55	87	490
2016	351	56	89	496
2017	345	62	70	477
2018	348	63	71	482
2019	352	64	72	488
2020	356	65	73	494
2021	359	66	74	499
2022	297	56	59	412
2023	300	57	59	416
2024	302	58	60	420
2025	304	59	61	424
2026	307	60	61	428
2027	266	55	51	372
2028	268	55	52	375
2029	270	56	52	378
2030	272	57	52	381
2031	274	57	53	384
2032	202	41	43	286
2033	203	42	44	289
2034	204	42	44	290
2035	205	42	44	291
2036	206	43	45	294
2037	149	32	32	213
2038	149	32	32	213
2039	150	32	32	214
2040	151	32	32	215
2041	151	32	32	215
2014-2023	3,400	598	740	4,738
2014-2031	5,663	1,055	1,182	7,900
2014-2041	7,433	1,425	1,562	10,420

Source: Watson & Associates Economists Ltd., 2013

TABLE A.7
Forecast Population in New Households by Unit Type*

Mid-Year	Singles & Semis	Rows & Other Multiples	Apartments	Total Pop in New HH
2013	998	108	111	1,217
2014	1,009	110	112	1,231
2015	1,021	112	113	1,246
2016	1,030	114	116	1,260
2017	1,012	126	91	1,229
2018	1,021	128	92	1,241
2019	1,033	130	94	1,257
2020	1,045	132	95	1,272
2021	1,053	134	96	1,283
2022	871	114	77	1,062
2023	880	116	77	1,073
2024	886	118	78	1,082
2025	892	120	79	1,091
2026	901	122	79	1,102
2027	780	112	66	958
2028	786	112	68	966
2029	792	114	68	974
2030	798	116	68	982
2031	804	116	69	989
2032	593	83	56	732
2033	596	85	57	738
2034	599	85	57	741
2035	602	85	57	744
2036	604	87	59	750
2037	437	65	42	544
2038	437	65	42	544
2039	440	65	42	547
2040	443	65	42	550
2041	443	65	42	550
2014-2023	9,975	1,216	963	12,154
2014-2031	16,614	2,146	1,538	20,298
2014-2041	21,808	2,896	2,034	26,738

*Based on PPU's 2.93 2.03 1.30

Source: Watson & Associates Economists Ltd., 2013

OXFORD COUNTY 2014 DEVELOPMENT CHARGES STUDY

TABLE A.8
Non-Residential Space Forecast

Employment Density

Primary Employment	100.0	m ² per employee
Commercial/Population-Related Employment	50.0	m ² per employee
Work at Home Employment	-	m ² per employee
Institutional Employment	50.0	m ² per employee
Industrial Employment	100.0	m ² per employee

Mid-Year	Primary Employment			Commercial/Population Related Employment			Work at Home Employment			Institutional Employment			Industrial Employment			Total Employment		
	Employment	Emp Growth	Space (m ²)	Employment	Empl Growth	Space (m ²)	Employment	Empl Growth	Space (m ²)	Employment	Empl Growth	Space (m ²)	Employment	Empl Growth	Space (m ²)	Employment	Empl Growth	Space (m ²)
2011	1,765			15,708			5,180			8,219			26,223			57,095		
2012	1,773	8	800	15,907	199	9,967	5,222	42	0	8,317	98	4,897	26,516	293	29,271	57,735	640	44,935
2013	1,781	8	800	16,108	201	10,050	5,265	43	0	8,416	99	4,950	26,812	296	29,600	58,383	648	45,400
2014	1,789	8	800	16,312	204	10,200	5,308	43	0	8,516	100	5,000	27,112	300	30,000	59,038	655	46,000
2015	1,797	8	800	16,519	207	10,350	5,351	43	0	8,618	102	5,100	27,415	303	30,300	59,700	662	46,550
2016	1,805	8	800	16,727	208	10,420	5,395	44	0	8,721	103	5,147	27,721	306	30,630	60,370	670	46,997
2017	1,809	4	400	16,945	218	10,880	5,442	47	0	8,821	100	5,003	28,074	353	35,270	61,092	722	51,553
2018	1,813	4	400	17,165	220	11,000	5,490	48	0	8,923	102	5,100	28,431	357	35,700	61,823	731	52,200
2019	1,817	4	400	17,388	223	11,150	5,538	48	0	9,026	103	5,150	28,792	361	36,100	62,562	739	52,800
2020	1,821	4	400	17,614	226	11,300	5,586	48	0	9,130	104	5,200	29,158	366	36,600	63,310	748	53,500
2021	1,825	4	400	17,844	230	11,501	5,635	49	0	9,235	105	5,228	29,528	370	37,007	64,067	757	54,136
2022	1,826	1	100	18,001	157	7,849	5,676	41	0	9,319	84	4,222	29,791	263	26,293	64,613	546	38,464
2023	1,827	1	100	18,159	158	7,900	5,718	42	0	9,404	85	4,250	30,056	265	26,500	65,164	551	38,750
2024	1,828	1	100	18,318	159	7,950	5,760	42	0	9,490	86	4,300	30,324	268	26,800	65,720	556	39,150
2025	1,829	1	100	18,479	161	8,050	5,802	42	0	9,577	87	4,350	30,594	270	27,000	66,281	561	39,500
2026	1,830	1	100	18,641	162	8,087	5,845	43	0	9,664	87	4,370	30,867	273	27,366	66,848	567	39,903
2027	1,831	1	100	18,762	121	6,063	5,874	29	0	9,721	57	2,830	31,080	213	21,254	67,268	420	30,247
2028	1,832	1	100	18,884	122	6,100	5,903	29	0	9,778	57	2,850	31,294	214	21,400	67,691	423	30,450
2029	1,833	1	100	19,007	123	6,150	5,932	29	0	9,836	58	2,900	31,509	215	21,500	68,117	426	30,650
2030	1,834	1	100	19,131	124	6,200	5,961	29	0	9,894	58	2,900	31,725	216	21,600	68,545	428	30,800
2031	1,835	1	100	19,255	124	6,210	5,990	29	0	9,953	59	2,962	31,942	217	21,740	68,976	431	31,012
2032	1,836	1	100	19,343	88	4,390	6,009	19	0	9,999	46	2,288	32,094	152	15,160	69,281	305	21,938
2033	1,837	1	100	19,431	88	4,400	6,028	19	0	10,045	46	2,300	32,246	152	15,200	69,587	306	22,000
2034	1,838	1	100	19,519	88	4,400	6,047	19	0	10,091	46	2,300	32,399	153	15,300	69,894	307	22,100
2035	1,839	1	100	19,608	89	4,450	6,066	19	0	10,137	46	2,300	32,553	154	15,400	70,203	309	22,250
2036	1,840	1	100	19,696	88	4,385	6,085	19	0	10,184	47	2,350	32,707	154	15,399	70,512	309	22,334
2037	1,842	2	200	19,740	44	2,215	6,101	16	0	10,208	24	1,200	32,783	76	7,601	70,674	162	11,216
2038	1,844	2	200	19,784	44	2,200	6,117	16	0	10,232	24	1,200	32,859	76	7,600	70,836	162	11,200
2039	1,846	2	200	19,828	44	2,200	6,133	16	0	10,256	24	1,200	32,935	76	7,600	70,998	162	11,200
2040	1,848	2	200	19,872	44	2,200	6,149	16	0	10,280	24	1,200	33,011	76	7,600	71,160	162	11,200
2041	1,850	2	200	19,916	44	2,219	6,165	16	0	10,305	25	1,242	33,087	76	7,628	71,323	163	11,289
2014-2023		46	4,600		2,051	102,550		453	0		988	49,400		3,244	324,400		6,782	480,950
2014-2031		54	5,400		3,147	157,360		725	0		1,537	76,862		5,130	513,040		10,593	752,862
2014-2041		69	6,900		3,808	190,419		900	0		1,889	94,442		6,275	627,528		12,940	919,289

Source: Hemson Consulting, Ltd., 2014

OXFORD COUNTY 2014 DEVELOPMENT CHARGES STUDY

TABLE A.9
Population, Households & Employment Summary
POPULATION

	2014	2023	2031	2041	2014-2023	Growth 2014-2031	2014-2041
County	107,764	114,099	119,070	122,830	7,021	11,992	15,752
Ingersoll	12,339	12,998	13,535	13,945	724	1,261	1,671
Tillsonburg	15,587	16,490	17,295	17,820	999	1,804	2,329
Blandford-Blenheim	7,437	7,749	8,030	8,290	338	619	879
East-Zorra Tavistock	6,905	7,134	7,295	7,450	252	413	568
Norwich	10,784	11,057	11,300	11,605	294	537	842
Zorra	8,064	7,134	7,295	7,450	54	123	233
Woodstock	38,871	43,128	46,040	48,050	4,553	7,465	9,475
SW Oxford	7,508	7,424	7,390	7,375	-96	-130	-145

HOUSEHOLDS

	2014	2023	2031	2041	2014-2023	Growth 2014-2031	2014-2041
County	42,989	47,243	50,405	52,925	4,738	7,900	10,420
Ingersoll	4,926	5,371	5,720	5,990	494	843	1,113
Tillsonburg	7,018	7,610	8,095	8,455	660	1,145	1,505
Blandford-Blenheim	2,681	2,903	3,085	3,240	244	426	581
East-Zorra Tavistock	2,575	2,761	2,900	3,020	206	345	465
Norwich	3,686	3,945	4,150	4,355	286	491	696
Zorra	2,980	3,125	3,240	3,355	160	275	390
Woodstock	16,414	18,815	20,455	21,645	2,615	4,255	5,445
SW Oxford	2,617	2,708	2,775	2,845	100	167	237

EMPLOYMENT

	2014	2023	2031	2041	2014-2023	Growth 2014-2031	2014-2041
County	59,038	65,165	68,976	71,323	6,782	10,593	12,940
Ingersoll	9,064	9,883	10,441	10,731	896	1,454	1,744
Tillsonburg	9,540	10,286	10,723	10,958	820	1,257	1,492
Blandford-Blenheim	2,811	2,990	3,088	3,114	201	299	325
East-Zorra Tavistock	2,705	2,858	2,957	3,064	168	266.875	374
Norwich	4,276	4,490	4,654	4,776	236	400	522
Zorra	3,100	3,205	3,286	3,348	120	201	263
Woodstock	24,930	28,701	30,991	32,396	4,177	6,467	7,872
SW Oxford	2,648	2,723	2,770	2,828	91	138	196

Source: Watson & Associates Economists Ltd, 2013

Note: Numbers may not add due to rounding

APPENDIX B

GENERAL SERVICES TECHNICAL APPENDIX

APPENDIX B**GENERAL SERVICES TECHNICAL APPENDIX
INTRODUCTION AND OVERVIEW**

This appendix provides the detailed analysis undertaken to establish the development charge rates for each of the general services in the County of Oxford. Four services have been analysed as part of the development charges study:

- B.1 General Government
- B.2 Library Services
- B.3 Land Ambulance
- B.4 Administration Building

Every service, with the exception of General Government and Administration Building, contains a set of three tables. The tables provide the background data and analysis undertaken to arrive at the calculated development charge rates for that particular service. An overview of the content and purpose of each of the tables is given below.

TABLE 1 HISTORIC SERVICE LEVELS

Table 1 provides the data utilized to determine the 10-year historic service level. The *DCA* and *Ontario Regulation 82/98 (O. Reg. 82/98)* require that the development charges be set at a level no higher than the average service level provided in the County over the 10-year period immediately preceding the preparation of the background study, on a service by service basis. For the purpose of this study, the historical inventory period has been defined as 2004 to 2013.

O. Reg. 82/98 requires that, when defining and determining historical service levels, both quantity (number and size) and quality (value or cost) of service be taken into consideration. In most cases, the service levels are initially established in quantitative terms. For example, service levels for buildings are presented in terms of square feet per unit. The qualitative aspect is introduced by the consideration of the monetary value of a facility or service. In the case of buildings, for example, the cost would be shown in terms of dollars per square foot to replace or construct a facility of the same quality. This approach helps to ensure that the development-related capital facilities

to be charged to new growth reflect not only the quantity but also the quality of service provided historically by the County. Both the quantitative and qualitative aspects of service levels used in the present analysis are based on information provided by County staff and the consultant. This information is generally based on historical records and experience with costs to acquire or construct similar facilities, equipment and infrastructure.

Table 1 also shows the calculation of the maximum allowable funding envelope, net of uncommitted excess capacity. The “maximum allowable” is defined as the 10-year historic service level (expressed as \$/capita or \$/population plus employment) multiplied by the forecast increase in net population (or Census population) or net population and employment growth over the planning period. The resulting value is the amount of capital infrastructure that must be constructed for that particular service in order to maintain the 10-year historic service level.

There is also a requirement in the DCA to consider “excess capacity” within a municipality’s existing infrastructure that may be available to partially meet future servicing requirements. If Council has expressed an intention before or at the time the capacity was created to recoup the cost of providing the capacity from new development, it is considered “committed excess capacity” under the DCA and the associated capital cost is eligible for recovery. Should uncommitted excess capacity exist, it is determined whether or not this capacity will be available to service new development and, if so, deductions to the maximum allowable funding envelope are required.

**TABLE 2 2014–2023 DEVELOPMENT-RELATED CAPITAL PROGRAM &
CALCULATION OF THE UNADJUSTED DEVELOPMENT CHARGE**

The DCA requires the County Council to express its intent to provide future capital facilities at the level incorporated in the development charges calculation. Based on the development forecasts as provided in Appendix A, County staff, in collaboration with the consultant, has developed a development-related capital forecast setting out those projects that are required to service anticipated growth for the 10-year period from 2014 to 2023.

To determine the share of the program that is eligible for recovery through development charges, the project costs are reduced by any anticipated grants,

“replacement” shares, and the legislated “10 per cent reduction” for any eligible services.

A replacement share occurs when a new facility will, at least in part, replace a facility that has been demolished, redeployed or will otherwise not be available to serve its former function. The replacement share of the capital program is not deemed to be development-related and is therefore removed from the development charge calculation. The capital cost for replacement will require funding from non-development charge sources, typically property taxes or user fees.

When calculating development charges, the development-related net capital cost must be reduced by 10 per cent for all services except protection services and engineered services (*DCA* s.5.(1)8). The 10 per cent discount is therefore applied to all general services considered in this appendix. As with replacement shares, the 10 per cent mandatory reduction must be funded from non-development charge sources.

The capital program less any replacement shares and 10 per cent discount yields the net development-related costs. Although deemed development-related, not all of the net development-related capital program may be recoverable from development charges in the period 2014–2023. For some services, a portion of the capital program will service growth that will not occur until beyond 2023. This portion of the capital program is deemed “pre-built” service capacity to be considered as committed excess capacity and recovered under future development charges, or is a service level increase.

The remaining portion of the net capital program represents the development-related cost that may be included in the development charge. In all cases, as required, this amount is equal to or less than the maximum allowable capital amount as calculated on Table 1. The result is the discounted development-related net capital cost that is eligible for recovery against development over the period from 2014 to 2023.

Calculation of the Unadjusted Development Charges Rates

The section below the capital program provides the calculation of the unadjusted development charges rates. The term “unadjusted” development charge is used to distinguish the charge that is calculated prior to cash flow financing consideration. The cash flow analysis is shown in Table 3.

The first step when determining the unadjusted development charges rate is the allocation of the development-related net capital costs between the residential and the non-residential sectors. For all general services, with the exception of Library Services, the development-related costs have been allocated 64 per cent to residential and 36 per cent to non-residential based on changes in population and employment over the planning period and other considerations. The development-related costs associated with Library Services have been allocated 100 per cent to the residential sector as the need for these services is generally driven by residential development.

The residential share of the 2014-2023 DC eligible costs are then divided by the forecast population growth in new units. This gives the unadjusted residential development charge per capita. The non-residential development-related net capital costs are divided by the forecast increase in non-residential gross floor area (GFA). This yields a charge per square metre of new non-residential GFA.

TABLE 3 CASH FLOW ANALYSIS

A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are, therefore accounted for in the calculation as allowed under the *DCA*. Based on the growth forecast, the analysis calculates the development charges rate that is required to finance the net development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the net development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per square metre of GFA non-residential development charges.

APPENDIX B.1

GENERAL GOVERNMENT

The DCA allows the cost of development-related studies to be included in the calculation of the development charges as long as they are permitted under the legislation. Consistent with s.5(1)7 of the DCA, the eligible development-related capital costs for the provision of studies and permitted general government expenditures and are reduced by 10 per cent when calculating the development charges.

**TABLE 1 2014–2023 DEVELOPMENT-RELATED CAPITAL PROGRAM &
CALCULATION OF THE UNADJUSTED DEVELOPMENT CHARGES**

Table 1 provides a list of development-related studies the County of Oxford anticipates undertaking during the 2014–2023 period. As permitted under the DCA, development charges studies must be undertaken every five years, thus two development charges studies are included in this period (in 2018 and 2023). The capital plan also includes two Secondary Plan and servicing studies and a provision for a County Official Plan and related studies. The total 10-year capital program amounts to \$1.08 million

The County anticipates receiving \$150,000 in grants or subsidies and this amount is netted off the total gross cost. The grant, subsidies and other recoveries amount to 50 per cent of the secondary planning and servicing studies. Recognizing that these studies are designed to improve the County in the future and provide strategies for development going forward, only one “benefit to existing” share is identified. In this regard, a share of \$300,000 has been identified for County Official Plan and related study updates, and this amount will not be recovered through development charges. The legislated ten per cent reduction, \$62,500 is also discounted from the capital costs. The funds that are available in the DC reserves amount to about \$527,900, and are used to offset the cost of the program. No post-period benefit shares have been identified for this service.

The remaining amount of \$34,600 is eligible for development charges funding in the ten-year planning period. This amount is included in the development charge calculation and is allocated 64 per cent, or \$22,100, of the development-related cost is allocated to new residential development, and 36 per cent, or \$12,500, to non-

residential development. This yields unadjusted development charges of \$1.82 per capita and \$0.03 per square metre.

TABLE 2 CASH FLOW ANALYSIS

After cash flow considerations, the residential charge decreases to \$1.73 per capita and the non-residential charge remains unchanged at \$0.03 per square metre. This is a reflection of the timing of the capital program in conjunction with the reserve funds on hand to fund the program and development charges revenues. The following table summarizes the calculation of the General Government development charges.

GENERAL GOVERNMENT SUMMARY					
2014 - 2023		Unadjusted		Adjusted	
Development-Related Capital Program		Development Charge		Development Charge	
Total	Net DC Recoverable	\$/capita	\$/sq.m	\$/capita	\$/sq.m
\$1,075,000	\$34,608	\$1.82	\$0.03	\$1.73	\$0.03

OXFORD COUNTY
DEVELOPMENT-RELATED CAPITAL PROGRAM
GENERAL GOVERNMENT

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs		
					Replacement & BTE Shares	10% Reduction		Available DC Reserves	2014-2023	Post 2023
1.0 GENERAL GOVERNMENT										
1.1 Growth-Related Studies										
1.1.1 Secondary Planning and Servicing Studies	2015	\$ 150,000	\$ 75,000	\$ 75,000	\$ -	\$ 7,500	\$ 67,500	\$ 67,500	\$ -	\$ -
1.1.2 Secondary Planning and Servicing Studies	2017	\$ 150,000	\$ 75,000	\$ 75,000	\$ -	\$ 7,500	\$ 67,500	\$ 67,500	\$ -	\$ -
1.1.3 DC Study Update	2018	\$ 85,000	\$ -	\$ 85,000	\$ -	\$ 8,500	\$ 76,500	\$ 76,500	\$ -	\$ -
1.1.4 County OP and related studies	2019	\$ 600,000	\$ -	\$ 600,000	\$ 300,000	\$ 30,000	\$ 270,000	\$ 270,000	\$ -	\$ -
1.1.5 DC Study Update	2023	\$ 90,000	\$ -	\$ 90,000	\$ -	\$ 9,000	\$ 81,000	\$ 46,392	\$ 34,608	\$ -
1.1.6		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Growth-Related Studies		\$ 1,075,000	\$ 150,000	\$ 925,000	\$ 300,000	\$ 62,500	\$ 562,500	\$ 527,892	\$ 34,608	\$ -
TOTAL GENERAL GOVERNMENT		\$ 1,075,000	\$ 150,000	\$ 925,000	\$ 300,000	\$ 62,500	\$ 562,500	\$ 527,892	\$ 34,608	\$ -

Residential Development Charge Calculation		
Residential Share of 2014 - 2023 DC Eligible Costs	64%	\$22,149
10-Year Growth in Population in New Units		12,154
Unadjusted Development Charge Per Capita		\$1.82
Non-Residential Development Charge Calculation		
Non-Residential Share of 2014 - 2023 DC Eligible Costs	36%	\$12,459
10-Year Growth in Square Metres		480,950
Unadjusted Development Charge Per Square Metre		\$0.03

2014 - 2023 Net Funding Envelope	n/a
Uncommitted Reserve Fund Balance	
Balance as at December 31, 2013	\$527,892

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APPENDIX B.1
TABLE 2 - PAGE 1

OXFORD COUNTY
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
GENERAL GOVERNMENT
RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

GENERAL GOVERNMENT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	TOTAL
OPENING CASH BALANCE	\$0.0	\$2.1	\$4.5	\$6.9	\$9.5	\$12.2	\$15.1	\$18.1	\$21.3	\$24.3	
2014 - 2023 RESIDENTIAL FUNDING REQUIREMENTS											
- General Government: Non Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$22.1	\$22.1
- General Government: Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$26.5	\$26.5
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	1,231	1,246	1,260	1,229	1,241	1,257	1,272	1,283	1,062	1,073	12,154
REVENUE											
- DC Receipts: Inflated	\$2.1	\$2.2	\$2.3	\$2.3	\$2.3	\$2.4	\$2.5	\$2.5	\$2.2	\$2.2	\$23.0
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.1	\$0.2	\$0.2	\$0.3	\$0.4	\$0.5	\$0.6	\$0.7	\$0.9	\$4.0
- Interest on In-year Transactions	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.7)	(\$0.3)
TOTAL REVENUE	\$2.1	\$2.3	\$2.5	\$2.6	\$2.7	\$2.9	\$3.1	\$3.2	\$3.0	\$2.4	\$26.7
CLOSING CASH BALANCE	\$2.1	\$4.5	\$6.9	\$9.5	\$12.2	\$15.1	\$18.1	\$21.3	\$24.3	\$0.2	

2014 Adjusted Charge Per Capita	\$1.73
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Allocation of Capital Program	
Residential Sector	64.0%
Non-Residential Sector	36.0%
Rates for 2014	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

OXFORD COUNTY
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
GENERAL GOVERNMENT
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

GENERAL GOVERNMENT	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	TOTAL
OPENING CASH BALANCE	\$0.00	\$1.42	\$2.90	\$4.53	\$6.31	\$8.26	\$10.28	\$12.47	\$14.84	\$16.79	
2014 - 2023 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- General Government: Non Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12.5	\$12.5
- General Government: Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$14.9	\$14.9
NON-RESIDENTIAL SPACE GROWTH											
- Growth in Square Metres	46,000	46,550	46,997	51,553	52,200	52,800	53,500	54,136	38,464	38,750	480,950
REVENUE											
- DC Receipts: Inflated	\$1.4	\$1.4	\$1.5	\$1.6	\$1.7	\$1.7	\$1.8	\$1.9	\$1.4	\$1.4	\$15.8
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.0	\$0.1	\$0.2	\$0.2	\$0.3	\$0.4	\$0.4	\$0.5	\$0.6	\$2.7
- Interest on In-year Transactions	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.4)	(\$0.1)
TOTAL REVENUE	\$1.4	\$1.5	\$1.6	\$1.8	\$2.0	\$2.0	\$2.2	\$2.4	\$1.9	\$1.6	\$18.4
CLOSING CASH BALANCE	\$1.4	\$2.9	\$4.5	\$6.3	\$8.3	\$10.3	\$12.5	\$14.8	\$16.8	\$3.5	

2014 Adjusted Charge Per Square Metre	\$0.03
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Allocation of Capital Program	
Residential Sector	64.0%
Non-Residential Sector	36.0%
Rates for 2014	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX B.2

LIBRARY SERVICES

The County of Oxford is responsible for providing library services to the Townships of Blandford-Blenheim, East Zorra-Tavistock, South-West Oxford, Zorra, Norwich and the Town's of Ingersoll and Tillsonburg. The County provides library services from a total of 15 branches, of which a number are located in community centres. The City of Woodstock is responsible for providing library services to their residents.

TABLE 1 2004-2013 HISTORIC SERVICE LEVELS

Table 1 displays the Library Services ten-year historic inventory for buildings, land, materials, and furniture and equipment (excluding computer equipment). The building space amounts to 50,200 square feet, valued at over \$11.79 million. The library buildings occupy approximately 1.79 hectares of land worth approximately \$375,300. The materials found at all branches are valued at \$5.18 million and the furniture and equipment associated with the branches are valued at \$1.01 million.

The 2013 full replacement value of the inventory of capital assets for the Library Services amounts to \$18.35 million and the ten-year historic average service level is \$271.14 per capita. The historic service level, multiplied by the ten-year forecast growth in net population (excluding Woodstock), results in a ten-year maximum allowable funding envelope of \$669,200. No uncommitted excess capacity is identified for this service.

Library services must be reduced by 10 per cent as required under the DCA. The resulting net maximum allowable funding envelope brought forward to the development charges calculation is reduced to \$602,256.

**TABLE 2 2014–2023 DEVELOPMENT-RELATED CAPITAL PROGRAM &
CALCULATION OF THE UNADJUSTED DEVELOPMENT CHARGES**

The Library Services capital program recovers primarily for the debenture payments related to the construction of the Norwich Library Branch and the recovery of costs associated with the Tillsonburg library branch renovation and expansion. These two projects combined amount to \$1.73 million. A provision of \$487,000 has been made for additional library collections materials based on historic service levels.

Altogether, the ten-year capital forecast for Library Services amounts to \$2.21 million.

A benefit to existing share of \$729,900 has been identified relating to the renovation of the existing library space. As required by the DCA, a ten per cent reduction has been applied to the capital projects, and these shares amount to \$148,300. Funds that are available in the DC reserves amount to \$345,700, and are used to help offset the cost of the program. Post-period benefit shares in the amount of \$386,900 have been identified for this service and will be eligible for funding under subsequent development charge studies.

The 2014–2023 development-related capital cost amounts to \$602,256, which is allocated entirely against residential development. This results in an unadjusted development charge of \$107.49 per capita.

TABLE 3 CASH FLOW ANALYSIS

After cash flow consideration, the residential calculated charge increases to \$133.50 per capita. This is a reflection of the timing of the capital program and development charges revenues.

The following table summarizes the calculation of the Library Services development charge:

LIBRARY SERVICES SUMMARY						
10-year Hist. Service Level per capita	2014 - 2023		Unadjusted		Adjusted	
	Development-Related Total	Capital Program Net DC Recoverable	Development Charge \$/capita	Development Charge \$/sq.m	Development Charge \$/capita	Development Charge \$/sq.m
\$271.14	\$1,075,000	\$602,256	\$107.49	\$0.00	\$133.50	\$0.00

APPENDIX B.2
TABLE 1 - PAGE 1

OXFORD COUNTY
INVENTORY OF CAPITAL ASSETS
LIBRARY SERVICES

BUILDINGS Facility Name	# of Square Feet										UNIT COST (\$/sq.ft.)	
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		
Beachville	631	263	-	-	-	-	-	-	-	-	-	\$235
Brownsville	700	700	700	700	700	700	700	700	700	700	700	\$235
Burgessville	800	800	800	800	800	800	800	800	800	800	800	\$235
Drumbo	1,018	424	-	-	-	-	-	-	-	-	-	\$235
Embro	900	900	900	900	900	900	900	900	900	900	900	\$235
Hickson	836	348	-	-	-	-	-	-	-	-	-	\$235
Ingersoll	12,160	12,160	12,160	12,160	12,160	12,160	12,160	12,160	12,160	12,160	12,160	\$235
Innerkip	1,038	1,038	1,038	1,038	1,038	1,038	1,038	1,038	1,038	1,038	1,038	\$235
Kintore	1,150	479	-	-	-	-	-	-	-	-	-	\$235
Mount Elgin	676	676	676	676	676	676	676	676	676	676	676	\$235
Norwich	1,213	1,213	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	\$235
Otterville	1,088	1,088	1,088	1,088	2,980	2,980	2,980	2,980	2,980	2,980	2,980	\$235
Oxford Centre	870	363	-	-	-	-	-	-	-	-	-	\$235
Plattsville	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	\$235
Princeton	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	\$235
Tavistock	1,414	1,414	1,414	1,414	1,414	1,414	4,300	4,300	4,300	4,300	4,300	\$235
Thamesford	3,217	3,217	3,217	3,217	3,217	3,217	3,217	3,217	3,217	3,217	3,217	\$235
Harrington	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	\$235
Library Headquarters (office space)	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	\$235
Tillsonburg	8,714	8,714	8,714	8,714	8,714	8,714	8,714	8,714	8,714	8,714	8,714	\$235
Total (sq.ft.)	45,725	43,097	45,407	45,407	47,299	47,299	50,185	50,185	50,185	50,185	50,185	
Total (\$000)	\$10,745.4	\$10,127.8	\$10,670.6	\$10,670.6	\$11,115.3	\$11,115.3	\$11,793.5	\$11,793.5	\$11,793.5	\$11,793.5	\$11,793.5	

APPENDIX B.2
TABLE 1 - PAGE 2OXFORD COUNTY
INVENTORY OF CAPITAL ASSETS
LIBRARY SERVICES

LAND Facility Name	# of Hectares										UNIT COST (\$/ha)	
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		
Beachville	0.01	0.00	-	-	-	-	-	-	-	-	-	\$170,000
Brownsville	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	\$170,000
Burgessville	0.01	0.01	0.01	0.01	0.01	0.06	0.06	0.06	0.06	0.06	0.06	\$190,000
Drumbo	0.01	0.00	-	-	-	-	-	-	-	-	-	\$170,000
Embro	0.01	0.01	0.01	0.01	0.01	0.06	0.06	0.06	0.06	0.06	0.06	\$150,000
Hickson	0.01	0.00	-	-	-	-	-	-	-	-	-	\$150,000
Ingersoll	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	\$500,000
Innerkip	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	\$150,000
Kintore	0.01	0.00	-	-	-	-	-	-	-	-	-	\$150,000
Mount Elgin	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	\$170,000
Norwich	0.05	0.05	0.05	0.05	0.05	0.22	0.22	0.22	0.22	0.22	0.22	\$190,000
Otterville	0.03	0.03	0.03	0.03	0.03	0.06	0.06	0.06	0.06	0.06	0.06	\$190,000
Oxford Centre	0.01	0.00	-	-	-	-	-	-	-	-	-	\$190,000
Plattsville	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	\$170,000
Princeton	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	\$170,000
Tavistock	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.14	0.14	0.14	0.14	\$150,000
Thamesford	0.03	0.03	0.03	0.03	0.03	0.72	0.72	0.72	0.72	0.72	0.72	\$150,000
Harrington	0.01	0.01	0.01	0.01	0.01	0.16	0.16	0.16	0.16	0.16	0.16	\$150,000
Library Headquarters (office space)	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	\$500,000
Tillsonburg	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	\$400,000
Total (ha)	0.56	0.53	0.51	0.51	0.51	1.66	1.79	1.79	1.79	1.79	1.79	
Total (\$000)	\$181.0	\$176.9	\$174.1	\$174.1	\$174.1	\$356.3	\$375.3	\$375.3	\$375.3	\$375.3	\$375.3	

APPENDIX B.2
TABLE 1 - PAGE 3

OXFORD COUNTY
INVENTORY OF CAPITAL ASSETS
LIBRARY SERVICES

MATERIALS Description	# of Materials										UNIT COST (\$/unit)
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
All Materials	223,951	219,534	213,350	213,350	213,351	218,985	219,599	225,118	222,894	225,000	\$23
Tillsonburg Materials	39,373	39,373	39,373	39,373	39,373	39,373	39,373	39,373	39,373	-	\$23
Total (#)	263,324	258,907	252,723	252,723	252,724	258,358	258,972	264,491	262,267	225,000	
Total (\$000)	\$6,056.4	\$5,954.9	\$5,812.6	\$5,812.6	\$5,812.7	\$5,942.2	\$5,956.4	\$6,083.3	\$6,032.1	\$5,175.0	

FURNITURE AND EQUIPMENT Description	Total Value of Equipment (\$)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Beachville	\$13,900	\$5,900	-	-	-	\$0	\$0	\$0	\$0	\$0
Brownsville	\$8,200	\$8,200	\$8,200	\$8,200	\$8,200	\$8,200	\$15,000	\$15,000	\$15,000	\$15,000
Burgessville	\$12,941	\$13,273	\$13,605	\$13,900	\$13,900	\$11,000	\$11,000	\$11,000	\$11,000	\$11,000
Drumbo	\$22,454	\$9,402	-	-	-	\$0	\$0	\$0	\$0	\$0
Embro	\$16,400	\$16,400	\$16,400	\$16,400	\$16,400	\$16,400	\$16,400	\$16,400	\$16,400	\$16,400
Hickson	\$16,700	\$7,700	-	-	-	\$0	\$0	\$0	\$0	\$0
Ingersoll	\$268,800	\$268,800	\$268,800	\$268,800	\$268,800	\$255,000	\$255,000	\$255,000	\$255,000	\$255,000
Innerkip	\$24,100	\$24,100	\$24,100	\$24,100	\$24,100	\$24,100	\$24,100	\$24,100	\$24,100	\$24,100
Kintore	\$25,400	\$10,600	-	-	-	\$0	\$0	\$0	\$0	\$0
Mount Elgin	\$14,900	\$14,900	\$14,900	\$14,900	\$14,900	\$14,900	\$14,900	\$14,900	\$14,900	\$14,900
Norwich	\$16,500	\$26,800	\$94,400	\$94,400	\$94,400	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Otterville	\$24,000	\$24,000	\$52,100	\$52,100	\$52,100	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Oxford Centre	\$19,246	\$7,964	-	-	-	\$0	\$0	\$0	\$0	\$0
Plattsville	\$66,300	\$66,300	\$66,300	\$66,300	\$66,300	\$66,300	\$66,300	\$66,300	\$66,300	\$66,300
Princeton	\$24,300	\$24,300	\$24,300	\$24,300	\$24,300	\$24,300	\$24,300	\$24,300	\$24,300	\$24,300
Tavistock	\$31,300	\$31,300	\$31,300	\$31,300	\$31,300	\$31,300	\$70,000	\$70,000	\$70,000	\$70,000
Thamesford	\$71,100	\$71,100	\$71,100	\$71,100	\$71,100	\$71,100	\$71,100	\$71,100	\$71,100	\$71,100
Harrington	\$26,500	\$26,500	\$26,500	\$26,500	\$26,500	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
Tillsonburg	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Total (\$000)	\$1,003.0	\$957.5	\$1,012.0	\$1,012.3	\$1,012.3	\$959.6	\$1,005.1	\$1,005.1	\$1,005.1	\$1,005.1

**OXFORD COUNTY
CALCULATION OF SERVICE LEVELS
LIBRARY SERVICES**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Historic Population*	66,569	66,753	66,934	67,142	67,349	67,556	67,762	67,965	68,188	68,503

INVENTORY SUMMARY (\$000)

Buildings	\$10,745.38	\$10,127.81	\$10,670.65	\$10,670.65	\$11,115.27	\$11,115.27	\$11,793.48	\$11,793.48	\$11,793.48	\$11,793.48
Land	\$180.98	\$176.95	\$174.07	\$174.07	\$174.07	\$356.26	\$375.29	\$375.29	\$375.29	\$375.29
Materials	\$6,056.44	\$5,954.85	\$5,812.63	\$5,812.63	\$5,812.65	\$5,942.23	\$5,956.36	\$6,083.29	\$6,032.14	\$5,175.00
Furniture And Equipment	\$1,003.04	\$957.54	\$1,012.01	\$1,012.30	\$1,012.30	\$959.60	\$1,005.10	\$1,005.10	\$1,005.10	\$1,005.10
Total (\$000)	\$17,985.84	\$17,217.15	\$17,669.35	\$17,669.64	\$18,114.29	\$18,373.36	\$19,130.22	\$19,257.16	\$19,206.01	\$18,348.87

Average
Service
Level

SERVICE LEVEL (\$/pop & emp)

Buildings	\$161.42	\$151.72	\$159.42	\$158.93	\$165.04	\$164.53	\$174.04	\$173.52	\$172.96	\$172.16	\$165.37
Land	\$2.72	\$2.65	\$2.60	\$2.59	\$2.58	\$5.27	\$5.54	\$5.52	\$5.50	\$5.48	\$4.05
Materials	\$90.98	\$89.21	\$86.84	\$86.57	\$86.31	\$87.96	\$87.90	\$89.51	\$88.46	\$75.54	\$86.93
Furniture And Equipment	\$15.07	\$14.34	\$15.12	\$15.08	\$15.03	\$14.20	\$14.83	\$14.79	\$14.74	\$14.67	\$14.79
Total (\$/capita)	\$270.18	\$257.92	\$263.98	\$263.17	\$268.96	\$271.97	\$282.31	\$283.34	\$281.66	\$267.85	\$271.14

*Population is for Oxford County excluding Woodstock, which provides their own library services.

**OXFORD COUNTY
CALCULATION OF MAXIMUM ALLOWABLE
LIBRARY SERVICES**

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2004 - 2013	\$271.14
Net Population Growth 2014 - 2023	2,468
Maximum Allowable Funding Envelope	\$669,174
Less: Uncommitted Excess Capacity	\$0
Less: 10% Legislated Reduction	\$66,917
Discounted Maximum Allowable Funding Envelope	\$602,256

Excess Capacity Calculation	
Total Value of Inventory in 2013	\$18,348,865
Inventory Using Average Service Level	\$18,573,903
Excess Capacity	\$0
Excess Capacity:	Committed

APPENDIX B.2
TABLE 2OXFORD COUNTY
DEVELOPMENT-RELATED CAPITAL PROGRAM
LIBRARY SERVICES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs		
					Replacement & BTE Shares	10% Reduction		Available DC Reserves	2014-2023	Post 2023
2.0 LIBRARY SERVICES										
2.1 Buildings, Land & Furnishings										
2.1.1 Recovery of Norwich Library Branch										
Recovery of Norwich Library Branch - Principal Payments	2014	\$ 59,953	\$ -	\$ 59,953	\$ -	\$ 5,995	\$ 53,958	\$ 53,958	\$ -	\$ -
Recovery of Norwich Library Branch - Principal Payments	2015	\$ 59,953	\$ -	\$ 59,953	\$ -	\$ 5,995	\$ 53,958	\$ 53,958	\$ -	\$ -
Recovery of Norwich Library Branch - Principal Payments	2016	\$ 59,953	\$ -	\$ 59,953	\$ -	\$ 5,995	\$ 53,958	\$ 53,958	\$ -	\$ -
Recovery of Norwich Library Branch - Principal Payments	2017	\$ 59,953	\$ -	\$ 59,953	\$ -	\$ 5,995	\$ 53,958	\$ -	\$ 53,958	\$ -
Recovery of Norwich Library Branch - Principal Payments	2018	\$ 59,953	\$ -	\$ 59,953	\$ -	\$ 5,995	\$ 53,958	\$ -	\$ 53,958	\$ -
Recovery of Norwich Library Branch - Principal Payments	2019	\$ 59,953	\$ -	\$ 59,953	\$ -	\$ 5,995	\$ 53,958	\$ -	\$ 53,958	\$ -
Recovery of Norwich Library Branch - Principal Payments	2020	\$ 59,953	\$ -	\$ 59,953	\$ -	\$ 5,995	\$ 53,958	\$ -	\$ 53,958	\$ -
Recovery of Norwich Library Branch - Principal Payments	2021	\$ 59,953	\$ -	\$ 59,953	\$ -	\$ 5,995	\$ 53,958	\$ -	\$ 53,958	\$ -
Recovery of Norwich Library Branch - Principal Payments	2022	\$ 29,977	\$ -	\$ 29,977	\$ -	\$ 2,998	\$ 26,979	\$ -	\$ 26,979	\$ -
2.1.2 Recovery of Tillsonburg Library Branch										
Recovery of Tillsonburg Branch - Principal Payments	Various	\$ 927,778	\$ -	\$ 927,778	\$ 556,667	\$ 37,111	\$ 334,000	\$ 66,800	\$ 267,200	\$ -
Recovery of Tillsonburg Branch - Remaining Costs	Various	\$ 288,731	\$ -	\$ 288,731	\$ 173,238	\$ 11,549	\$ 103,943	\$ 31,183	\$ 38,289	\$ 34,471
Subtotal Buildings, Land & Furnishings		\$ 1,726,109	\$ -	\$ 1,726,109	\$ 729,905	\$ 99,620	\$ 896,583	\$ 259,856	\$ 602,256	\$ 34,471
2.2 Material Acquisitions										
2.2.1 Collection Material	Various	\$ 487,000	\$ -	\$ 487,000	\$ -	\$ 48,700	\$ 438,300	\$ 85,832	\$ -	\$ 352,468
Subtotal Material Acquisitions		\$ 487,000	\$ -	\$ 487,000	\$ -	\$ 48,700	\$ 438,300	\$ 85,832	\$ -	\$ 352,468
TOTAL LIBRARY SERVICES		\$ 2,213,109	\$ -	\$ 2,213,109	\$ 729,905	\$ 148,320	\$ 1,334,883	\$ 345,688	\$ 602,256	\$ 386,939

Note 1: Principal costs only. Financing is included in cashflow calculations.

Residential Development Charge Calculation		
Residential Share of 2014 - 2023 DC Eligible Costs	100%	\$602,256
10-Year Growth in Population in New Units		5,603
Unadjusted Development Charge Per Capita		\$107.49
Non-Residential Development Charge Calculation		
Non-Residential Share of 2014 - 2023 DC Eligible Costs	0%	\$0
10-Year Growth in Square Metres		162,400
Unadjusted Development Charge Per Square Metre		\$0.00

2014 - 2023 Net Funding Envelope	\$602,256
Uncommitted Reserve Fund Balance Balance as at December 31, 2013	\$345,688

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APPENDIX B.2
TABLE 3

**OXFORD COUNTY
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
LIBRARY SERVICES
RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)**

LIBRARY SERVICES	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	TOTAL
OPENING CASH BALANCE	\$0.00	\$35.47	\$86.89	\$37.72	\$13.77	(\$7.22)	(\$24.43)	(\$38.51)	(\$49.67)	(\$42.49)	
2014 - 2023 RESIDENTIAL FUNDING REQUIREMENTS											
- Library Services: Non-Inflated	\$30.5	\$30.5	\$30.5	\$84.5	\$84.5	\$84.5	\$84.5	\$84.5	\$57.5	\$30.5	\$602.3
- Library Services: Inflated	\$30.5	\$31.2	\$31.8	\$89.7	\$91.5	\$93.3	\$95.2	\$97.1	\$67.4	\$36.5	\$664.1
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	719	790	32	600	602	609	613	614	509	515	5,603
REVENUE											
- DC Receipts: Inflated	\$96.0	\$107.6	\$4.4	\$85.0	\$87.0	\$89.8	\$92.2	\$94.2	\$79.6	\$82.2	\$818.0
INTEREST											
- Interest on Opening Balance	\$0.0	\$1.2	\$3.0	\$1.3	\$0.5	(\$0.4)	(\$1.3)	(\$2.1)	(\$2.7)	(\$2.3)	(\$2.8)
- Interest on In-year Transactions	\$1.1	\$1.3	(\$0.8)	(\$0.1)	(\$0.1)	(\$0.1)	(\$0.1)	(\$0.1)	\$0.2	\$0.8	\$2.2
- Interest on Norwich Branch	(\$20.6)	(\$18.2)	(\$15.7)	(\$13.2)	(\$10.7)	(\$8.1)	(\$5.6)	(\$3.1)	(\$0.6)	\$0.0	(\$96.0)
- Interest on Tillsonburg Branch	(\$10.5)	(\$9.4)	(\$8.4)	(\$7.3)	(\$6.2)	(\$5.1)	(\$4.0)	(\$3.0)	(\$1.9)	(\$0.8)	(\$56.5)
TOTAL REVENUE	\$66.0	\$82.6	(\$17.4)	\$65.7	\$70.5	\$76.1	\$81.1	\$85.9	\$74.6	\$79.9	\$665.0
CLOSING CASH BALANCE	\$35.5	\$86.9	\$37.7	\$13.8	(\$7.2)	(\$24.4)	(\$38.5)	(\$49.7)	(\$42.5)	\$0.9	

2014 Adjusted Charge Per Capita	\$133.50
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Allocation of Capital Program	
Residential Sector	100.0%
Non-Residential Sector	0.0%
Rates for 2014	
Inflation Rate:	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX B.3

LAND AMBULANCE

The provision of Land Ambulance services was downloaded to the County in August 2000. As of January 1, 2002, the County of Oxford assumed responsibility of delivery of Emergency Medical Services. The County provides 24 hour pre-hospital emergency and non-emergency care and transportation of patients to and between hospitals.

TABLE 1 2004-2013 HISTORIC SERVICE LEVELS

The County of Oxford Land Ambulance Service operates out of five stations, two of which are in Woodstock. The stations have a combined floor area of 26,600 square feet with a replacement cost of \$5.59 million. Land for the stations totals 1.44 hectares with a value of \$547,600. The replacement cost of eligible vehicles is \$2.10 million and equipment adds another \$1.49 million to the inventory.

The total replacement value for the Land Ambulance infrastructure and assets amounts to \$9.72 million. This has provided the County with a ten-year average historic service level of \$49.59 per population and employment. The historic service level multiplied by the forecast 10-year net population and employment growth results in a 10-year maximum allowable funding envelope of \$684,500. Excess capacity (\$1.51 million) exists as a result of the additional station space; however it has been committed and, therefore, not included in the calculation of the maximum allowable funding envelope.

Land Ambulance services must be reduced by 10 per cent as required under the *DCA*. The resulting net maximum allowable funding envelope brought forward to the development charges calculation is reduced to \$616,042.

TABLE 2 2014–2023 DEVELOPMENT-RELATED CAPITAL PROGRAM & CALCULATION OF THE UNADJUSTED DEVELOPMENT CHARGES

The 2014-2023 growth-related capital program for land ambulance provides solely for the recovery of the Mill Street EMS Station Debenture of \$2.00 million.

The new Mill Street EMS Station was a replacement and enlargement of a smaller station and, as such, a replacement share of \$600,000 has been netted off of the

development charges calculation. The required 10 per cent discount amounts to \$140,000 for Land Ambulance. Funds available in the DC reserves total \$223,900. Both of these shares have been netted off of the development-related eligible share. Finally \$420,035 is considered to be a post 2023 benefitting share, which will be eligible for consideration under subsequent development charges.

The resulting discounted development-related net capital cost eligible for development charges funding totals \$616,042. Approximately \$394,300 of this amount, or 64 per cent, is allocated to residential development and \$221,800, or 36 per cent, is allocated to non-residential development.

This yields an unadjusted residential development charge of \$32.44 per capita and a non-residential unadjusted charge of \$0.46 per square metre.

TABLE 3 CASH FLOW ANALYSIS

After conducting a cash flow analysis, both the residential and non-residential charges increase to \$43.50 per capita and \$0.62 per square metre, respectively.

The following table summarizes the calculation of the Land Ambulance Services development charge:

LAND AMBULANCE SERVICES SUMMARY						
10-year Hist. Service Level per pop & emp	2014 - 2023		Unadjusted		Adjusted	
	Development-Related Total	Capital Program Net DC Recoverable	Development Charge		Development Charge	
			\$/capita	\$/sq.m	\$/capita	\$/sq.m
\$49.59	\$2,000,000	\$616,042	\$32.44	\$0.46	\$43.50	\$0.62

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OXFORD COUNTY
INVENTORY OF CAPITAL ASSETS
LAND AMBULANCE SERVICES

BUILDINGS Station Name	# of Square Feet										UNIT COST (\$/sq. ft.)
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Ingersoll Station (Carnegie Street)	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	\$210
Woodstock East Station (Bysham Park)	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	\$210
Woodstock West Station (Mill Street)	4,060	4,060	4,060	4,060	4,060	4,060	4,060	4,060	4,060	12,300	\$210
Tillsonburg Station (Concession Street)	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	\$210
Rural Stations (Norwich, Drumbo, Embro, Hickson)	2,400	2,600	2,600	5,500	5,500	5,500	5,500	5,500	5,500	5,500	\$210
Total (sq.ft.)	15,260	15,460	15,460	18,360	18,360	18,360	18,360	18,360	18,360	26,600	
Total (\$000)	\$3,204.6	\$3,246.6	\$3,246.6	\$3,855.6	\$3,855.6	\$3,855.6	\$3,855.6	\$3,855.6	\$3,855.6	\$5,586.0	

LAND Station Name	# of Hectares										UNIT COST (\$/ha)
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Ingersoll Station (Carnegie Street)	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	\$500,000
Woodstock East Station (Bysham Park)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	\$760,000
Woodstock West Station (Mill Street)	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.24	0.24	0.24	\$760,000
Tillsonburg Station (Concession Street)	0.15	0.15	0.15	0.15	0.15	0.24	0.24	0.24	0.24	0.24	\$170,000
Rural Stations (Norwich, Drumbo, Embro, Hickson)	0.30	0.30	0.30	1.00	1.00	0.63	0.63	0.63	0.63	0.63	\$170,000
Total (ha)	0.94	0.94	0.94	1.64	1.64	1.35	1.35	1.44	1.44	1.44	
Total (\$000)	\$413.2	\$413.2	\$413.2	\$532.2	\$532.2	\$479.2	\$479.2	\$547.6	\$547.6	\$547.6	

OXFORD COUNTY
 INVENTORY OF CAPITAL ASSETS
 LAND AMBULANCE SERVICES

VEHICLES Type of Collection	# of Vehicles										UNIT COST (\$/Item)
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Ambulances	12	12	12	12	12	12	12	12	12	12	\$132,500
ESU	1	1	1	1	1	1	1	1	1	1	\$150,000
ERU	2	2	3	3	3	3	3	3	3	3	\$92,000
Trailer	-	-	-	-	1	1	1	1	1	1	\$45,000
Cargo Van	-	-	-	-	-	-	1	1	1	1	\$35,000
Total (#)	15	15	16	16	17	17	18	18	18	18	
Total (\$000)	\$1,924.0	\$1,924.0	\$2,016.0	\$2,016.0	\$2,061.0	\$2,061.0	\$2,096.0	\$2,096.0	\$2,096.0	\$2,096.0	

FURNITURE & EQUIPMENT Station Name	# of Equipment										UNIT COST (\$/unit)
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Furniture & Equipment at all stations	\$55,000	\$66,000	\$88,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$170,000	-
Equipment for Ambulances	\$1,195,000	\$1,195,000	\$1,195,000	\$1,283,000	\$1,283,000	\$906,600	\$906,600	\$906,600	\$906,600	\$906,600	-
Equipment for Other Vehicles	\$221,000	\$221,000	\$221,000	\$221,000	\$221,000	\$302,200	\$302,200	\$302,200	\$302,200	\$302,200	-
Equipment for Paramedics											
- # of equipped paramedics	70	70	72	74	74	79	77	76	83	84	\$1,300
Total (\$000)	\$1,562.0	\$1,573.0	\$1,597.6	\$1,700.2	\$1,700.2	\$1,411.5	\$1,408.9	\$1,407.6	\$1,416.7	\$1,488.0	

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OXFORD COUNTY
CALCULATION OF SERVICE LEVELS
LAND AMBULANCE SERVICES

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Historic Population	101,347	102,049	102,756	103,342	103,931	104,524	105,120	105,719	106,396	107,078
Historic Employment	<u>50,882</u>	<u>51,859</u>	<u>52,855</u>	<u>53,675</u>	<u>54,510</u>	<u>55,358</u>	<u>56,219</u>	<u>57,095</u>	<u>57,736</u>	<u>58,383</u>
Total Historic Population & Employment	152,229	153,908	155,611	157,017	158,441	159,882	161,339	162,814	164,132	165,461

INVENTORY SUMMARY (\$000)

Buildings	\$3,204.6	\$3,246.6	\$3,246.6	\$3,855.6	\$3,855.6	\$3,855.6	\$3,855.6	\$3,855.6	\$3,855.6	\$5,586.0
Land	\$413.2	\$413.2	\$413.2	\$532.2	\$532.2	\$479.2	\$479.2	\$547.6	\$547.6	\$547.6
Vehicles	\$1,924.0	\$1,924.0	\$2,016.0	\$2,016.0	\$2,061.0	\$2,061.0	\$2,096.0	\$2,096.0	\$2,096.0	\$2,096.0
Furniture & Equipment	\$1,562.0	\$1,573.0	\$1,597.6	\$1,700.2	\$1,700.2	\$1,411.5	\$1,408.9	\$1,407.6	\$1,416.7	\$1,488.0
Total (\$000)	\$7,103.8	\$7,156.8	\$7,273.4	\$8,104.0	\$8,149.0	\$7,807.3	\$7,839.7	\$7,906.8	\$7,915.9	\$9,717.6

SERVICE LEVEL (\$/pop & emp)

Average
Service
Level

Buildings	\$21.05	\$21.09	\$20.86	\$24.56	\$24.33	\$24.12	\$23.90	\$23.68	\$23.49	\$33.76	\$24.08
Land	\$2.71	\$2.68	\$2.66	\$3.39	\$3.36	\$3.00	\$2.97	\$3.36	\$3.34	\$3.31	\$3.08
Vehicles	\$12.64	\$12.50	\$12.96	\$12.84	\$13.01	\$12.89	\$12.99	\$12.87	\$12.77	\$12.67	\$12.81
Furniture & Equipment	\$10.26	\$10.22	\$10.27	\$10.83	\$10.73	\$8.83	\$8.73	\$8.65	\$8.63	\$8.99	\$9.61
Total (\$/pop & emp)	\$46.67	\$46.50	\$46.74	\$51.61	\$51.43	\$48.83	\$48.59	\$48.56	\$48.23	\$58.73	\$49.59

OXFORD COUNTY
CALCULATION OF MAXIMUM ALLOWABLE
LAND AMBULANCE SERVICES

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2004 - 2013	\$49.59
Net Population & Employment Growth 2014 - 2023	13,803
Maximum Allowable Funding Envelope	\$684,491
Less: Uncommitted Excess Capacity	\$0
Less: 10% Legislated Reduction	\$68,449
Discounted Maximum Allowable Funding Envelope	\$616,042

Excess Capacity Calculation	
Total Value of Inventory in 2013	\$9,717,640
Inventory Using Average Service Level	\$8,205,211
Excess Capacity	\$1,512,429
Excess Capacity:	Committed

OXFORD COUNTY
DEVELOPMENT-RELATED CAPITAL PROGRAM
LAND AMBULANCE SERVICES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs		
					Replacement & BTE Shares	10% Reduction		Available DC Reserves	2014-2023	Post 2023
3.0 LAND AMBULANCE SERVICES										
3.1 Buildings, Land & Furnishings										
3.1.1 Recovery of Mill Street EMS Station	Various	\$ 2,000,000	\$ -	\$ 2,000,000	\$ 600,000	\$ 140,000	\$ 1,260,000	\$ 223,923	\$ 616,042	\$ 420,035
Subtotal Buildings, Land & Furnishings		\$ 2,000,000	\$ -	\$ 2,000,000	\$ 600,000	\$ 140,000	\$ 1,260,000	\$ 223,923	\$ 616,042	\$ 420,035
TOTAL LAND AMBULANCE SERVICES		\$ 2,000,000	\$ -	\$ 2,000,000	\$ 600,000	\$ 140,000	\$ 1,260,000	\$ 223,923	\$ 616,042	\$ 420,035

Residential Development Charge Calculation		
Residential Share of 2014 - 2023 DC Eligible Costs	64%	\$394,267
10-Year Growth in Population in New Units		12,154
Unadjusted Development Charge Per Capita		\$32.44
Non-Residential Development Charge Calculation		
Non-Residential Share of 2014 - 2023 DC Eligible Costs	36%	\$221,775
10-Year Growth in Square Metres		480,950
Unadjusted Development Charge Per Square Metre		\$0.46

2014 - 2023 Net Funding Envelope	\$616,042
Uncommitted Reserve Fund Balance Balance as at December 31, 2013	\$223,923

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OXFORD COUNTY
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
LAND AMBULANCE SERVICES
RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

LAND AMBULANCE SERVICES	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	TOTAL
OPENING CASH BALANCE	\$0.0	(\$11.0)	(\$19.0)	(\$23.9)	(\$27.7)	(\$28.1)	(\$24.8)	(\$17.7)	(\$6.7)	(\$3.6)	
2014 - 2023 RESIDENTIAL FUNDING REQUIREMENTS											
- Land Ambulance Services: Non Inflated	\$39.4	\$39.4	\$39.4	\$39.4	\$39.4	\$39.4	\$39.4	\$39.4	\$39.4	\$39.4	\$394.3
- Land Ambulance Services: Inflated	\$39.4	\$40.2	\$41.0	\$41.8	\$42.7	\$43.5	\$44.4	\$45.3	\$46.2	\$47.1	\$431.7
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	1,231	1,246	1,260	1,229	1,241	1,257	1,272	1,283	1,062	1,073	12,154
REVENUE											
- DC Receipts: Inflated	\$53.5	\$55.3	\$57.0	\$56.7	\$58.4	\$60.4	\$62.3	\$64.1	\$54.1	\$55.8	\$577.6
INTEREST											
- Interest on Opening Balance	\$0.0	(\$0.6)	(\$1.0)	(\$1.3)	(\$1.5)	(\$1.5)	(\$1.4)	(\$1.0)	(\$0.4)	(\$0.2)	(\$8.9)
- Interest on In-year Transactions	\$0.2	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.1	\$0.2	\$2.6
- Interest on station debt	(\$25.3)	(\$22.7)	(\$20.2)	(\$17.6)	(\$14.9)	(\$12.3)	(\$9.8)	(\$7.1)	(\$4.5)	(\$1.9)	(\$136.4)
TOTAL REVENUE	\$28.4	\$32.2	\$36.1	\$38.0	\$42.3	\$46.8	\$51.5	\$56.3	\$49.3	\$53.8	\$434.8
CLOSING CASH BALANCE	(\$11.0)	(\$19.0)	(\$23.9)	(\$27.7)	(\$28.1)	(\$24.8)	(\$17.7)	(\$6.7)	(\$3.6)	\$3.1	

2014 Adjusted Charge Per Capita	\$43.50
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Allocation of Capital Program	
Residential Sector	64.0%
Non-Residential Sector	36.0%
Rates for 2014	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

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OXFORD COUNTY
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
LAND AMBULANCE SERVICES
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

LAND AMBULANCE SERVICES	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	TOTAL
OPENING CASH BALANCE	\$0.00	(\$7.81)	(\$14.12)	(\$18.89)	(\$19.29)	(\$17.53)	(\$13.60)	(\$7.19)	\$1.75	\$1.21	
2014 - 2023 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Land Ambulance Services: Non Inflated	\$22.2	\$22.2	\$22.2	\$22.2	\$22.2	\$22.2	\$22.2	\$22.2	\$22.2	\$22.2	\$221.8
- Land Ambulance Services: Inflated	\$22.2	\$22.6	\$23.1	\$23.5	\$24.0	\$24.5	\$25.0	\$25.5	\$26.0	\$26.5	\$242.8
NEW NON-RESIDENTIAL DEVELOPMENT											
- Growth in Square Metres	46,000	46,550	46,997	51,553	52,200	52,800	53,500	54,136	38,464	38,750	480,950
REVENUE											
- DC Receipts: Inflated	\$28.5	\$29.4	\$30.3	\$33.9	\$35.0	\$36.1	\$37.4	\$38.6	\$27.9	\$28.7	\$325.8
INTEREST											
- Interest on Opening Balance	\$0.0	(\$0.4)	(\$0.8)	(\$1.0)	(\$1.1)	(\$1.0)	(\$0.7)	(\$0.4)	\$0.1	\$0.0	(\$5.3)
- Interest on In-year Transactions	\$0.1	\$0.1	\$0.1	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.0	\$0.0	\$1.5
- Interest on station debt	(\$14.2)	(\$12.8)	(\$11.3)	(\$9.9)	(\$8.4)	(\$6.9)	(\$5.5)	(\$4.0)	(\$2.6)	(\$1.1)	(\$76.7)
TOTAL REVENUE	\$14.4	\$16.3	\$18.3	\$23.1	\$25.8	\$28.4	\$31.4	\$34.4	\$25.4	\$27.7	\$245.2
CLOSING CASH BALANCE	(\$7.8)	(\$14.1)	(\$18.9)	(\$19.3)	(\$17.5)	(\$13.6)	(\$7.2)	\$1.8	\$1.2	\$2.4	

2014 Adjusted Charge Per Square Metre	\$0.62
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Allocation of Capital Program	
Residential Sector	64.0%
Non-Residential Sector	36.0%
Rates for 2014	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX B.4

ADMINISTRATION BUILDING

The County of Oxford has recently constructed a new administration building from which the main administrative municipal functions will operate. County staff and the Consultant have carefully identified the gross floor area that will be occupied by the non-corporate, or municipal services from the corporate, or administrative services. The non-corporate services which operate from the County's administrative building are Social Services, Public Works and Planning. In total, the building encompasses over 88,500 square feet and 33,000 square feet has been identified as non-corporate services space.

TABLE 1 2014–2023 DEVELOPMENT-RELATED CAPITAL PROGRAM & CALCULATION OF THE UNADJUSTED DEVELOPMENT CHARGES

The total construction cost of the building was \$20.99 million, \$7.82 million of which has been allocated to non-corporate services. A large portion of this cost, \$7.36 million, will be removed as the benefit to existing share based on shares of population growth over the ten-year forecast period. The legislated 10 per cent reduction amounts to \$46,000. Available DC reserves in the amount of \$66,700 have also been netted out of the total costs. The remaining development-related portion of the project, \$347,000, is brought forward to the development charges calculation.

Of this \$347,000, 64 per cent, or \$222,100, is allocated to new residential development, and 36 per cent, or \$124,900, to non-residential development. This yields unadjusted charges of \$18.27 per capita and \$0.26 per square metre.

TABLE 2 CASH FLOW ANALYSIS

After cash flow considerations, both the calculated residential and non-residential rates increase to \$21.30 per capita and \$0.31 per square metre, respectively.

ADMINISTRATION BUILDING SUMMARY						
10-year Hist.	2014 - 2023		Unadjusted		Adjusted	
Service Level	Development-Related Capital Program		Development Charge		Development Charge	
per pop & emp	Total	Net DC Recoverable	\$/capita	\$/sq.m	\$/capita	\$/sq.m
n/a	\$7,819,196	\$346,998	\$18.27	\$0.26	\$21.30	\$0.31

OXFORD COUNTY
DEVELOPMENT-RELATED CAPITAL PROGRAM
ADMINISTRATION BUILDING

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs		
					Replacement & BTE Shares	10% Reduction		Available DC Reserves	2014-2023	Post 2023
4.0 ADMINISTRATION BUILDING										
4.1 Non-Corporate Services										
4.1.1 Share of Administration Building	2014	\$7,819,196	\$ -	\$ 7,819,196	\$ 7,359,500	\$ 45,970	\$ 413,726	\$ 66,728	\$ 346,998	\$ -
		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Non-Corporate Services		\$ 7,819,196	\$ -	\$ 7,819,196	\$ 7,359,500	\$ 45,970	\$ 413,726	\$ 66,728	\$ 346,998	\$ -
TOTAL ADMINISTRATION BUILDING		\$ 7,819,196	\$ -	\$ 7,819,196	\$ 7,359,500	\$ 45,970	\$ 413,726	\$ 66,728	\$ 346,998	\$ -

Residential Development Charge Calculation		
Residential Share of 2014 - 2023 DC Eligible Costs	64%	\$222,079
10-Year Growth in Population in New Units		12,154
Unadjusted Development Charge Per Capita		\$18.27
Non-Residential Development Charge Calculation		
Non-Residential Share of 2014 - 2023 DC Eligible Costs	36%	\$124,919
10-Year Growth in Square Metres		480,950
Unadjusted Development Charge Per Square Metre		\$0.26

Uncommitted Reserve Fund Balance	
Balance as at December 31, 2013	\$66,728

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OXFORD COUNTY
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
ADMINISTRATION BUILDING
RESIDENTIAL DEVELOPMENT CHARGE
 (in \$000)

ADMINISTRATION BUILDING	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	TOTAL
OPENING CASH BALANCE	\$0.00	(\$201.27)	(\$184.76)	(\$166.53)	(\$147.41)	(\$126.41)	(\$103.25)	(\$77.89)	(\$50.23)	(\$26.03)	
2014 - 2023 RESIDENTIAL FUNDING REQUIREMENTS											
- Administration Building: Non Inflated	\$222.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$222.1
- Administration Building: Inflated	\$222.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$222.1
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	1,231	1,246	1,260	1,229	1,241	1,257	1,272	1,283	1,062	1,073	12,154
REVENUE											
- DC Receipts: Inflated	\$26.2	\$27.1	\$27.9	\$27.8	\$28.6	\$29.6	\$30.5	\$31.4	\$26.5	\$27.3	\$282.9
INTEREST											
- Interest on Opening Balance	\$0.0	(\$11.1)	(\$10.2)	(\$9.2)	(\$8.1)	(\$7.0)	(\$5.7)	(\$4.3)	(\$2.8)	(\$1.4)	(\$59.6)
- Interest on In-year Transactions	(\$5.4)	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	(\$0.9)
TOTAL REVENUE	\$20.8	\$16.5	\$18.2	\$19.1	\$21.0	\$23.2	\$25.4	\$27.7	\$24.2	\$26.3	\$222.4
CLOSING CASH BALANCE	(\$201.3)	(\$184.8)	(\$166.5)	(\$147.4)	(\$126.4)	(\$103.2)	(\$77.9)	(\$50.2)	(\$26.0)	\$0.3	

2014 Adjusted Charge Per Capita	\$21.30
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Allocation of Capital Program	
Residential Sector	64.0%
Non-Residential Sector	36.0%
Rates for 2014	
Inflation Rate:	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

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**OXFORD COUNTY
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
ADMINISTRATION BUILDING
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)**

ADMINISTRATION BUILDING	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	TOTAL
OPENING CASH BALANCE	\$0.00	(\$113.66)	(\$104.96)	(\$95.26)	(\$83.20)	(\$69.97)	(\$55.41)	(\$39.43)	(\$21.96)	(\$8.92)	
2014 - 2023 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Administration Building: Non Inflated	\$124.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$124.9
- Administration Building: Inflated	\$124.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$124.9
NON-RESIDENTIAL SPACE GROWTH											
- Growth in Square Metres	46,000	46,550	46,997	51,553	52,200	52,800	53,500	54,136	38,464	38,750	480,950
REVENUE											
- DC Receipts: Inflated	\$14.3	\$14.7	\$15.2	\$17.0	\$17.5	\$18.1	\$18.7	\$19.3	\$14.0	\$14.4	\$163.2
INTEREST											
- Interest on Opening Balance	\$0.0	(\$6.3)	(\$5.8)	(\$5.2)	(\$4.6)	(\$3.8)	(\$3.0)	(\$2.2)	(\$1.2)	(\$0.5)	(\$32.6)
- Interest on In-year Transactions	(\$3.0)	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.2	\$0.3	(\$0.4)
TOTAL REVENUE	\$11.3	\$8.7	\$9.7	\$12.1	\$13.2	\$14.6	\$16.0	\$17.5	\$13.0	\$14.2	\$130.2
CLOSING CASH BALANCE	(\$113.7)	(\$105.0)	(\$95.3)	(\$83.2)	(\$70.0)	(\$55.4)	(\$39.4)	(\$22.0)	(\$8.9)	\$5.2	

2014 Adjusted Charge Per Square Metre	\$0.31
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Allocation of Capital Program	
Residential Sector	64.0%
Non-Residential Sector	36.0%
Rates for 2014	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C

ROADS AND RELATED TECHNICAL APPENDIX

APPENDIX C

ROADS AND RELATED TECHNICAL APPENDIX

This appendix provides the detailed analysis undertaken to establish the development charges rates for the Roads and Related service category in the County of Oxford. This service category includes the road network, bridges and culverts, streetlights, intersection improvements, traffic signalization, storm drainage (within the ROW), sidewalks, cycling lanes, studies and other related structures.

The capital planning and management of all transportation infrastructure in the County of Oxford is carried out by the Public Works department.

The development-related roads and related infrastructure projects are required to service the demands of new development to 2041 to approximately 122,830 persons and total employment of 71,300. This forecast is discussed in more detail in Appendix A.

The following tables set out the 2014 to 2041 development-related capital forecast and the calculation of the development charges for roads. The basis of the development-related capital program for transportation infrastructure is the County's capital budget and forecast documents as well as detailed discussions with County staff. The projects identified in the capital program are required to service the demands of new development between 2014 and 2041, subject to annual capital budget reviews. Consistent with s.5.(1)7. of the *Development Charges Act (DCA)*, there is no legislated percentage reduction in the eligible growth-related capital cost for the provision of transportation infrastructure.

Tables 1–4 provide details of the projects included in the County-wide roads and related engineered infrastructure development charges calculation. The content of the tables is as follows:

Table 1	Roads and Related Capital Program: 2014–2041
Table 2	Summary of Residential and Non-residential Development Charges
Table 3	Residential Cash Flow Analysis

Table 4 Non-Residential Cash Flow Analysis

The total cost of the roads capital program is \$63.44 million (Table 1) which provides for the undertaking of projects throughout the County.

The entire \$63.44 million development-related capital program is not to be fully recovered from future development charges; approximately \$13.55 million has been identified as grant funding received to offset the cost of the program. A share in the amount of \$21.17 million has been identified as a non-growth or benefit to existing share (Table 2). Table 2 also identifies a prior growth share of \$2.36 million representing a share of projects committed against the reserve in past years. Additionally, existing funds available in the roads development charges reserve fund of \$2.24 million are used to fund a portion of the program. Lastly, a portion of this capital program, \$2.00 million, is deemed to be a post-period benefit, and will be considered for recovery in subsequent development charges by-laws.

The 2014-2041 DC costs eligible for recovery amount to \$22.12 million, which has been allocated 67 per cent (\$14.82 million) to new residential development and 33 per cent (\$7.30 million) to new non-residential development. The allocation of costs is based on shares of population (in new households) and employment growth over the planning period.

The long-term cash flow analysis (Tables 3 and 4) takes into consideration expenditure timing and revenue projections. The effect of the analysis is an increase in the calculated development charges rates. The main reason for this increase is the expectation that the timing of the development-related expenditures is in advance of the benefitting growth.

The following is a summary of the Roads and Related calculated unadjusted and cash flow adjusted development charges rates:

ROADS AND RELATED SUMMARY					
2014-2041		Unadjusted		Adjusted	
Growth-Related Capital Program		Development Charge		Development Charge	
Total	Net DC Recoverable	\$/capita	\$/sq.m	\$/capita	\$/sq.m
\$63,439,980	\$22,122,118	\$554.34	\$7.94	\$687.29	\$9.48

APPENDIX C
TABLE 1
COUNTY OF OXFORD
2014 DEVELOPMENT CHARGES STUDY
ROADS AND RELATED DEVELOPMENT-RELATED CAPITAL PROGRAM

ROADS AND RELATED				Length of Improvement (m) by Type of Road		Anticipated Timing	PROJECT COST AND ALLOCATION							Notes				
							Gross Cost ¹	Grants and Subsidies	Benefit to Existing and Local Shares ²		Prior Growth ³	Available DC Reserve ³	Net Growth-Related		Post Period Benefit ⁴	Net DC Recoverable 2014-2041		
Proj #	Road	From	To	Description	Urban	Half Urban	Rural											
Recovery of Completed Projects																		
1	County Road 59/17			Intersection Improvements				Pre 2014	\$869,656	\$0	43%	\$373,738	\$0	\$495,918	\$0	\$0	5	
2	County Road 4 - CNR Bridge			Grade Separation Improvements				Pre 2014	\$12,568,000	\$6,944,953	-	\$2,473,546	\$875,000		\$2,264,501	\$0	\$2,264,501	5
3	East Woodstock			Reconstruction and Widening				Pre 2014	\$8,311,000	\$5,609,620	0%	\$0	\$875,000	\$282,648	\$1,543,732	\$0	\$1,543,732	5.6
4	County Road 2 at CR 6			Intersection Improvements				Pre 2014	\$1,205,636	\$992,750	50%	\$106,443	\$0	\$106,443	\$0	\$0	\$0	5
5	County Road 59 (Wilson Ave) at CR 2 Dundas			Intersection Improvements				Pre 2014	\$335,035	\$0	50%	\$167,518	\$0	\$167,517	\$0	\$0	\$0	5
6	CR 51 (Simcoe Street)			Widening and Upgrading				Pre 2014	\$3,605,587	\$0	75%	\$2,704,191	\$0	\$901,396	\$0	\$0	\$0	5
7	2005 Transportation Study							Pre 2014	\$200,361	\$0	50%	\$100,181	\$91,785	\$8,395	\$0	\$0	\$0	5
8	Rd 2 & Banner Road							Pre 2014	\$33,295	\$0	43%	\$14,317	\$17,305	\$1,673	\$0	\$0	\$0	5
9	Traffic Signals							Pre 2014	\$1,195,410	\$0	50%	\$597,705	\$326,500	\$271,205	\$0	\$0	\$0	5
New Projects																		
1	County Road 35	Lansdowne	CR 4	Intersection Improvements				2014 - 2019	\$1,100,000		0%	\$0	\$0	\$1,100,000	\$0	\$1,100,000	5	
2	County Road 12	Hwy 401		Widening and Urbanizing				2014 - 2019	\$2,200,000		50%	\$1,100,000		\$1,100,000	\$0	\$1,100,000		
3	County Road 20	Broadway	Tilson	Widening and Upgrading	2,100.0			2014 - 2019	\$6,700,000		25%	\$1,675,000	\$175,115	\$4,849,885	\$0	\$4,849,885		
4	County Road 15	CR 59	Bee St	Widening and Upgrading	700.0			2014 - 2019	\$2,599,000		7%	\$175,000	\$0	\$2,424,000	\$0	\$2,424,000	2	
	County Road 59 (Norwich 5 Ave)	at Juliana		Widening and Upgrading				2014 - 2019	\$350,000		0%	\$0	\$0	\$350,000	\$0	\$350,000		
6	County Road 17	Lakeview Dr	13-th	Widening and Upgrading	1,000			2014 - 2019	\$1,400,000		25%	\$350,000	\$0	\$1,050,000	\$0	\$1,050,000	5	
7	County Road 2	at CR 55		Reconstruction and Widening - outstanding share				2014 - 2019	\$2,000		50%	\$1,000	\$0	\$1,000	\$0	\$1,000		
8	County Road 4	Parkinson	CR 33	Corridor Study				2014 - 2019	\$250,000		0%	\$0	\$0	\$250,000	\$0	\$250,000		
9	County Road 4	Parkinson	CR 35	Intersection Improvements				2014 - 2019	\$525,000		0%	\$0	\$0	\$525,000	\$0	\$525,000		
10	Trussler Rd	Cedar Creek Rd	New Dundee Road	Upgrading				2014 - 2018	\$4,050,000		95%	\$3,848,000	\$0	\$202,000	\$0	\$202,000		
11	Trussler Rd			Study				2015 - 2016	\$1,250,000		95%	\$1,188,000	\$0	\$62,000	\$0	\$62,000		
12	County Road 4	at CR 17		Grade separation & Intersection Realignment				2029 - 2034	\$5,000,000		40%	\$2,000,000	\$0	\$3,000,000	\$2,000,000	\$1,000,000		
13	Harris Street, Ingersoll	at Clarke		Intersection Improvements				2014 - 2019	\$1,000,000		0%	\$0	\$0	\$1,000,000	\$0	\$1,000,000		
14	Bell Street			Study				2014 - 2019	\$100,000		0%	\$0	\$0	\$100,000	\$0	\$100,000		
15	Transportation Masterplan Updates (\$250,000 every 5 years)							2014 - 2041	\$1,300,000		50%	\$650,000	\$0	\$650,000	\$0	\$650,000	5	
16	Signals	At various locations - 8 Signals @ \$300,000 each						2014 - 2041	\$2,400,000		50%	\$1,200,000	\$0	\$1,200,000	\$0	\$1,200,000	5	
17	Signals	At various locations - 7 Signals @ \$700,000 each						2014 - 2041	\$4,900,000		50%	\$2,450,000	\$0	\$2,450,000	\$0	\$2,450,000	5	
TOTAL									\$63,439,980	\$13,547,323	33%	\$21,174,639	\$2,360,705	\$2,235,195	\$24,122,118	\$2,000,000	\$22,122,118	

Notes:

- Source: County of Oxford staff based on current estimates, past project costing, and any available studies.
- The non-growth shares is based on off-set maintenance capital expenditures that the County would have incurred in the event of no new Urban \$250 /m
This cost is based on the County's current road maintenance cost and practices. Half Urban \$125 /m
Rural \$125 /m
- Prior growth and Available DC reserves is the share of projects already funded from the roads development charge reserve fund or committed against the reserve fund.
- Post Period Benefit shares are identified as the project is designed to service growth beyond 2041
- BTE based on % from 2009 Study .

**APPENDIX C
TABLE 2**

**COUNTY OF OXFORD
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
ROADS AND RELATED - 2014 TO 2041**

Ultimate Year Growth in Population in New Units	26,738
Employment Growth	12,940
Ultimate Growth in Square Meters	919,289

	Development-Related Capital Forecast ¹									
	Gross Cost	Grants and Subsidies	Prior Growth (and Existing Reserve Fund)	Benefit to Existing Share	Pre-Built Service (Calculated Oversizing) ²	Total DC Eligible Costs for Recovery	Residential Share	Non-Residential Share		
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	%	\$000	%	\$000
ROADS AND RELATED										
Roads and Related Projects	\$63,440.0	\$13,547.3	\$4,595.9	\$21,174.6	\$2,000.0	\$22,122.1	67%	\$14,821.8	33%	\$7,300.3
TOTAL ROADS AND RELATED	\$63,440.0	\$13,547.3	\$4,595.9	\$21,174.6	\$2,000.0	\$22,122.1		\$14,821.8		\$7,300.3
Unadjusted Development Charge Per Capita (\$)								\$ 554.34		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 7.94

Notes:

- 1) No legislated service discounts for water and wastewater projects.
- 2) Works anticipated to benefit development beyond 2041

**APPENDIX C
TABLE 3
COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
ROADS AND RELATED
RESIDENTIAL DEVELOPMENT CHARGE**

ROADS AND RELATED

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$3,348.7)	(\$4,285.5)	(\$5,278.6)	(\$6,342.0)	(\$7,470.2)	(\$8,632.9)	(\$8,223.9)	(\$7,765.9)	(\$7,445.5)	(\$7,083.4)	(\$6,678.2)	(\$6,227.1)	(\$5,724.9)	(\$5,308.6)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
ROADS AND RELATED - constant (\$000)	\$4,105.2	\$1,574.5	\$1,574.5	\$1,553.7	\$1,553.7	\$1,526.6	\$102.9	\$102.9	\$102.9	\$102.9	\$102.9	\$102.9	\$102.9	\$102.9	\$102.9
ROADS AND RELATED - current (\$000)	\$4,105.2	\$1,606.0	\$1,638.1	\$1,648.8	\$1,681.8	\$1,685.5	\$115.9	\$118.2	\$120.6	\$123.0	\$125.4	\$127.9	\$130.5	\$133.1	\$135.8
POPULATION GROWTH															
- Population in New Units	1,231	1,246	1,260	1,229	1,241	1,257	1,272	1,283	1,062	1,073	1,082	1,091	1,102	958	966
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$846.1	\$873.5	\$901.0	\$896.4	\$923.2	\$953.8	\$984.5	\$1,012.9	\$855.2	\$881.3	\$906.5	\$932.3	\$960.6	\$851.7	\$876.0
- Interest on Opening Balance	\$0.0	(\$184.2)	(\$235.7)	(\$290.3)	(\$348.8)	(\$410.9)	(\$474.8)	(\$452.3)	(\$427.1)	(\$409.5)	(\$389.6)	(\$367.3)	(\$342.5)	(\$314.9)	(\$292.0)
- Interest on In-year Transactions (excl.int.)	(\$89.6)	(\$20.1)	(\$20.3)	(\$20.7)	(\$20.9)	(\$20.1)	\$15.2	\$15.7	\$12.9	\$13.3	\$13.7	\$14.1	\$14.5	\$12.6	\$13.0
TOTAL REVENUE	\$756.5	\$669.2	\$645.0	\$585.4	\$553.5	\$522.8	\$524.9	\$576.2	\$440.9	\$485.1	\$530.6	\$579.1	\$632.6	\$549.4	\$597.0
CLOSING CASH BALANCE	(\$3,348.7)	(\$4,285.5)	(\$5,278.6)	(\$6,342.0)	(\$7,470.2)	(\$8,632.9)	(\$8,223.9)	(\$7,765.9)	(\$7,445.5)	(\$7,083.4)	(\$6,678.2)	(\$6,227.1)	(\$5,724.9)	(\$5,308.6)	(\$4,847.4)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$4,847.4)	(\$4,491.1)	(\$4,095.1)	(\$3,657.6)	(\$3,439.5)	(\$3,194.8)	(\$2,924.9)	(\$2,455.9)	(\$1,942.0)	(\$1,614.0)	(\$1,259.2)	(\$872.6)	(\$452.1)	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
ROADS AND RELATED - constant (\$000) - constant (\$000)	\$214.6	\$214.6	\$214.6	\$214.6	\$214.6	\$214.6	\$102.9	\$102.9	\$102.9	\$102.9	\$102.9	\$102.9	\$102.9	\$14,821.8
ROADS AND RELATED - current (\$000) - current (\$000)	\$288.8	\$294.5	\$300.4	\$306.4	\$312.6	\$318.8	\$156.0	\$159.1	\$162.3	\$165.5	\$168.8	\$172.2	\$175.6	\$16,476.6
POPULATION GROWTH														
- Population in New Units	974	982	989	732	738	741	744	750	544	544	547	550	550	26,738
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$901.0	\$926.5	\$951.8	\$718.5	\$738.9	\$756.8	\$775.0	\$796.9	\$589.6	\$601.4	\$616.8	\$632.6	\$645.2	\$23,306.0
- Interest on Opening Balance	(\$266.6)	(\$247.0)	(\$225.2)	(\$201.2)	(\$189.2)	(\$175.7)	(\$160.9)	(\$135.1)	(\$106.8)	(\$88.8)	(\$69.3)	(\$48.0)	(\$24.9)	(\$6,878.4)
- Interest on In-year Transactions (excl.int.)	\$10.7	\$11.1	\$11.4	\$7.2	\$7.5	\$7.7	\$10.8	\$11.2	\$7.5	\$7.6	\$7.8	\$8.1	\$8.2	\$49.8
TOTAL REVENUE	\$645.1	\$690.5	\$738.0	\$524.5	\$557.2	\$588.7	\$625.0	\$673.0	\$490.3	\$520.3	\$555.4	\$592.7	\$628.5	\$16,477.4
CLOSING CASH BALANCE	(\$4,491.1)	(\$4,095.1)	(\$3,657.6)	(\$3,439.5)	(\$3,194.8)	(\$2,924.9)	(\$2,455.9)	(\$1,942.0)	(\$1,614.0)	(\$1,259.2)	(\$872.6)	(\$452.1)	\$0.8	
ROADS AND RELATED CHARGE PER CAPITA														

2014 Adjusted Charge Per Capita	\$687.29
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Allocation of Capital Program	
Residential Sector	67%
Non-Residential Sector	33%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

APPENDIX C
TABLE 4COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
ROADS AND RELATED
NON-RESIDENTIAL DEVELOPMENT CHARGE

ROADS AND RELATED

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$1,629.5)	(\$2,069.4)	(\$2,535.9)	(\$2,977.0)	(\$3,441.5)	(\$3,916.0)	(\$3,608.3)	(\$3,266.1)	(\$3,071.5)	(\$2,855.4)	(\$2,615.0)	(\$2,349.2)	(\$2,055.6)	(\$1,857.9)
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS															
ROADS AND RELATED - constant (\$000)	\$2,022.0	\$775.5	\$775.5	\$765.3	\$765.3	\$751.9	\$50.7	\$50.7	\$50.7	\$50.7	\$50.7	\$50.7	\$50.7	\$50.7	\$50.7
ROADS AND RELATED - current (\$000)	\$2,022.0	\$791.0	\$806.8	\$812.1	\$828.3	\$830.2	\$57.1	\$58.2	\$59.4	\$60.6	\$61.8	\$63.0	\$64.3	\$65.6	\$66.9
NON-RESIDENTIAL GROWTH - Growth in Sq. m	46,000	46,550	46,997	51,553	52,200	52,800	53,500	54,136	38,464	38,750	39,150	39,500	39,903	30,247	30,450
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$436.1	\$450.1	\$463.5	\$518.6	\$535.6	\$552.6	\$571.2	\$589.5	\$427.2	\$439.0	\$452.4	\$465.6	\$479.8	\$370.9	\$380.9
- Interest on Opening Balance	\$0.0	(\$89.6)	(\$113.8)	(\$139.5)	(\$163.7)	(\$189.3)	(\$215.4)	(\$198.5)	(\$179.6)	(\$168.9)	(\$157.0)	(\$143.8)	(\$129.2)	(\$113.1)	(\$102.2)
- Interest on In-year Transactions (excl.int.)	(\$43.6)	(\$9.4)	(\$9.4)	(\$8.1)	(\$8.1)	(\$7.6)	\$9.0	\$9.3	\$6.4	\$6.6	\$6.8	\$7.0	\$7.3	\$5.3	\$5.5
TOTAL REVENUE	\$392.5	\$351.1	\$340.2	\$371.1	\$363.8	\$355.7	\$364.8	\$400.3	\$254.0	\$276.7	\$302.2	\$328.8	\$357.9	\$263.2	\$284.2
CLOSING CASH BALANCE	(\$1,629.5)	(\$2,069.4)	(\$2,535.9)	(\$2,977.0)	(\$3,441.5)	(\$3,916.0)	(\$3,608.3)	(\$3,266.1)	(\$3,071.5)	(\$2,855.4)	(\$2,615.0)	(\$2,349.2)	(\$2,055.6)	(\$1,857.9)	(\$1,640.6)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$1,640.6)	(\$1,477.6)	(\$1,298.7)	(\$1,101.8)	(\$1,013.7)	(\$917.0)	(\$810.5)	(\$607.9)	(\$389.5)	(\$321.6)	(\$248.4)	(\$169.4)	(\$84.2)	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS														
ROADS AND RELATED - constant (\$000) - constant (\$000)	\$105.7	\$105.7	\$105.7	\$105.7	\$105.7	\$105.7	\$50.7	\$50.7	\$50.7	\$50.7	\$50.7	\$50.7	\$50.7	\$7,300.3
ROADS AND RELATED - current (\$000) - current (\$000)	\$142.2	\$145.1	\$148.0	\$150.9	\$154.0	\$157.0	\$76.8	\$78.3	\$79.9	\$81.5	\$83.1	\$84.8	\$86.5	\$8,115.4
NON-RESIDENTIAL GROWTH - Growth in Sq. m	30,650	30,800	31,012	21,938	22,000	22,100	22,250	22,234	11,216	11,200	11,200	11,200	11,289	919,289
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$391.1	\$400.8	\$411.7	\$297.0	\$303.8	\$311.3	\$319.7	\$325.9	\$167.7	\$170.8	\$174.2	\$177.7	\$182.7	\$10,767.4
- Interest on Opening Balance	(\$90.2)	(\$81.3)	(\$71.4)	(\$60.6)	(\$55.8)	(\$50.4)	(\$44.6)	(\$33.4)	(\$21.4)	(\$17.7)	(\$13.7)	(\$9.3)	(\$4.6)	(\$2,658.1)
- Interest on In-year Transactions (excl.int.)	\$4.4	\$4.5	\$4.6	\$2.6	\$2.6	\$2.7	\$4.3	\$4.3	\$1.5	\$1.6	\$1.6	\$1.6	\$1.7	\$15.1
TOTAL REVENUE	\$305.2	\$324.0	\$344.9	\$239.0	\$250.7	\$263.6	\$279.4	\$296.8	\$147.8	\$154.7	\$162.1	\$170.0	\$179.7	\$8,124.4
CLOSING CASH BALANCE	(\$1,477.6)	(\$1,298.7)	(\$1,101.8)	(\$1,013.7)	(\$917.0)	(\$810.5)	(\$607.9)	(\$389.5)	(\$321.6)	(\$248.4)	(\$169.4)	(\$84.2)	\$9.0	

2014 Adjusted Charge Per Square Metre

\$9.48

Allocation of Capital Program

Residential Sector	67%
Non-Residential Sector	33%

Rates for 2014

Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

APPENDICES D-K

***AREA-SPECIFIC WATER AND WASTEWATER
TECHNICAL APPENDIX***

INTRODUCTION TO APPENDICES D TO K

COUNTY OF OXFORD WATER AND WASTEWATER SERVICE AREAS

Since 2000, the County of Oxford Public Works Department has administered and maintained all aspects of water and wastewater services in the County. The department maintains plants in: Beachville (Loweville Subdivision), Bright, Brownsville, Dereham Centre, Drumbo, Embro, Hickson (King Subdivision), Ingersoll, Innerkip (Aldergrange Subdivision), Innerkip (Estates Subdivision), Innerkip (Homesites Subdivision), Lakeside, Mount Elgin, Norwich, Otterville, Plattsville, Princeton (Countryside Manor), Springford, Sweaburg (Oxford Heights Subdivision), Tavistock, Thamesford, Tillsonburg and Woodstock. Map 1 identifies the various water and wastewater systems in the County.

Appendices D through K identify the development-related projects that are required in order to maintain the water and wastewater servicing needs of new residential and non-residential development in the various service areas. Area-specific development charges have been calculated separately for each of the service areas. The area-specific approach more closely aligns costs and benefits for services where benefits are localized and can be identified. Area-specific charges result in a more accurate distribution of costs among the benefitting land owners than a County-wide uniform rate. Each appendix deals with a specific geographic area that coincides with the water and wastewater service areas. The appendices are organized as follows:

Appendix D	Woodstock
Appendix E	Tillsonburg
Appendix F	Ingersoll
Appendix G	Plattsville
Appendix H	Drumbo
Appendix I	Tavistock
Appendix J	Norwich
Appendix K	Thamesford

The map included following this introduction identifies the various water and wastewater service areas in the County.

Every appendix contains a set of four tables providing the background data and analysis undertaken to arrive at the calculated development charges rates for that particular service. The following is an overview of the content and purpose of each of the tables:

TABLE 1 2014–2041 DEVELOPMENT-RELATED CAPITAL BUDGET

The *DCA* requires the council of a municipality to express its intent to provide future capital facilities at the level incorporated in the development charges calculation. Based on the development forecasts as provided in Appendix A, staff of the municipality, in collaboration with the consultant, developed a development-related capital forecast setting out those projects that are required to service anticipated growth within the various service areas. The projects and costings are based upon a number of servicing studies that have been undertaken over the last number of years. The capacity of the works and the allocation of the development-related costs is based upon servicing lands (to 2041) designated for development.

Table 1 provides details on the anticipated timing and costs of the projects that have been identified as being in whole or part development-related for the 2014 to 2041 period or the servicing capacity (population) of the planned works. It is not implied that all of these costs are to be recovered from new development by way of development charges. Portions of various projects may relate to providing servicing for development which has occurred prior to 2014, for replacement of existing capital facilities and shares of projects providing benefit to existing residents, and for shares of projects that will provide a benefit to development beyond 2041.

TABLE 2 CALCULATION OF THE UNADJUSTED DEVELOPMENT CHARGES RATES

Table 2 provides the calculation of the unadjusted development charges rates. The term “unadjusted” development charge is used to distinguish the charge that is calculated prior to cash flow financing consideration. The cash flow analysis is shown in Table 3 (residential) and Table 4 (non-residential).

The first step in the determination of the unadjusted development charge rate is the allocation of the development-related net capital costs between the residential and the non-residential sectors. The allocation of the costs is determined for each service area independently and based on changes in population and employment over the planning period and other considerations.

The residential development-related costs are then divided by the forecast population in new housing units resulting in the unadjusted residential development charge on a per capita basis. The non-residential development-related costs are divided by the forecast increase in non-residential gross floor area (GFA) yielding a charge per square metre of new non-residential GFA.

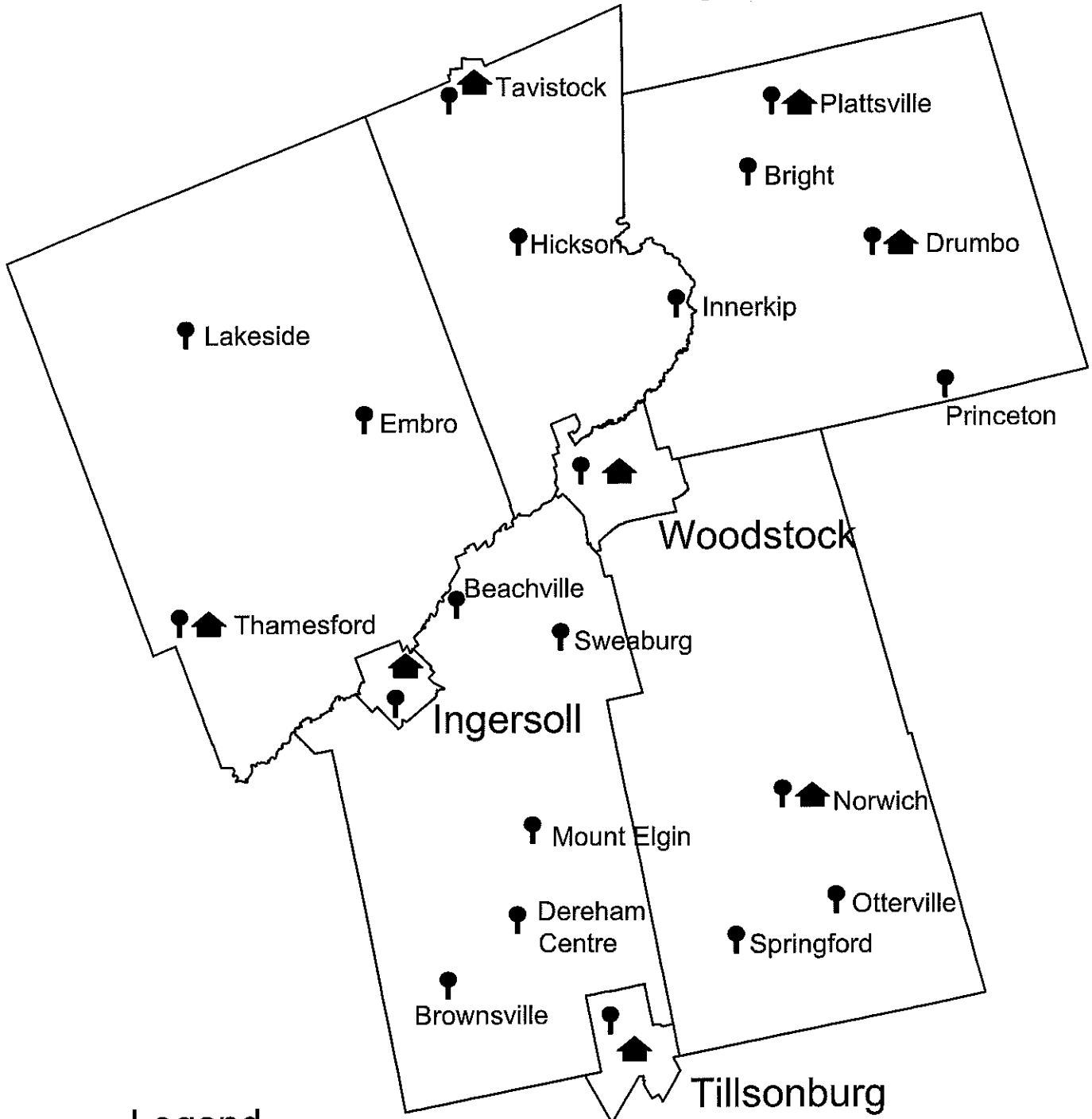
TABLES 3 AND 4 CASH FLOW ANALYSIS

A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are therefore accounted for in the calculation as allowed under the *DCA*. Based on the development forecast, the analysis calculates the development charges rate that is required to finance the net development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The calculation also incorporates an allowance for uncommitted development charges reserve balances from prior development charges. Any existing uncommitted reserve fund balances, for each service area, have been applied against the development-related capital costs of the first project(s) within the capital program.



In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the net development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements and an interest rate of 5.5 per cent is used for borrowing/earnings on the funds, yielding an effective real discount rate of 3.5 per cent.

COUNTY OF OXFORD

Water / Wastewater Systems



Legend

-  Wastewater System
-  Water System

APPENDIX D

WATER AND WASTEWATER AREA-SPECIFIC TECHNICAL APPENDIX WOODSTOCK

This appendix provides a brief outline of the County's water and wastewater infrastructure needs for the Woodstock service area. The development-related projects are required in order to maintain the servicing needs of new residential and non-residential development in the Woodstock service area.

The following sections set out the 2014 to 2041 development-related capital forecast and the calculation of the development charges. The cost, quantum and timing of the projects included in the forecast have been provided by the County's Public Works Department. Consistent with s.5.(1)7. of the DCA, there is no legislated percentage reduction in the eligible development-related capital cost for the provision of water and wastewater infrastructure. Tables 1–4 provide details of the projects included in the Woodstock service area development charges calculation; the content of the individual tables is as follows:

Table 1 Development-Related Water and Wastewater Capital Program

Table 2 Calculation of the Unadjusted Development Charges Rates

Table 3 Residential Cash Flow

Table 4 Non-Residential Cash Flow

The following is a summary of the calculated water and wastewater development charges rates for the Woodstock service area:

Residential	Adjusted Charge Per Capita	Charge By Unit Type ⁽¹⁾				Non-Residential Charge Per Square Metre
		Single & Semi-Detached	Rows & Other Multiples	Apartments		
				2 Bedrooms & Larger	Bachelor & 1 Bedroom	
Water	\$928.00	\$2,657	\$2,227	\$1,652	\$1,253	\$6.89
Wastewater	\$1,005.30	\$2,878	\$2,413	\$1,789	\$1,357	\$7.47
Total Water and Wastewater	\$1,933.30	\$5,535	\$4,640	\$3,441	\$2,610	\$14.36

(1) Based on Persons Per Unit Of:

2.86

2.40

1.78

1.35

APPENDIX D
TABLE 1

COUNTY OF OXFORD
2014 DEVELOPMENT CHARGE STUDY
DEVELOPMENT-RELATED WATER & WASTEWATER CAPITAL PROGRAM
WOODSTOCK SERVICE AREA

WOODSTOCK Attributed to Development 2014 to 2041	Timing (year)	Gross Cost ¹ (Estimate)	Recoveries		Net Capital Cost	Benefit to Existing & Local Share ²		Prior Growth ³	Available DC Reserves ³	Total Growth-Related	Notes
			Grants/Subs	Other		%	\$				
Water											
Recovery of Completed Projects											
n/a North West Development Area Water Tower	Pre 2014	\$ 2,925,199	\$ -	\$ -	\$ 2,925,199	11.2%	\$ 327,622	\$ 1,877,751	\$ 719,826	\$ -	5
n/a Boothill Subdivision - Watermain loop	Pre 2014	\$ 34,189	\$ -	\$ -	\$ 34,189	0.0%	\$ -	\$ 25,000	\$ 9,189	\$ -	
n/a County Rd 4 extension to Landsdowne	Pre 2014	\$ 597,000	\$ -	\$ -	\$ 597,000	0.0%	\$ -	\$ -	\$ 597,000	\$ -	
n/a Woodstock East End Servicing - Watermains 2, 4 and 35	Pre 2014	\$ 2,121,146	\$ 1,270,069	\$ 663,000	\$ 188,077	0.0%	\$ -	\$ -	\$ 188,077	\$ -	
n/a Nellis Street Booster Station	Pre 2014	\$ 247,250	\$ -	\$ -	\$ 247,250	0.0%	\$ -	\$ -	\$ 247,250	\$ -	
n/a Watermain Oversizing costs	Pre 2014	\$ 514,000	\$ -	\$ -	\$ 514,000	0.0%	\$ -	\$ -	\$ 514,000	\$ -	
n/a East Water Tower	Pre 2014	\$ 2,888,380	\$ -	\$ 1,280,000	\$ 1,608,380	0.0%	\$ -	\$ -	\$ 135,668	\$ 1,472,712	
n/a Capacity Increase	Pre 2014	\$ 1,187,500	\$ -	\$ 574,506	\$ 612,994	0.0%	\$ -	\$ -	\$ -	\$ 612,994	
960165 Commerce Way BPS	Pre 2014	\$ 1,339,663	\$ -	\$ -	\$ 1,339,663	0.0%	\$ -	\$ 750,000	\$ -	\$ 589,663	
New Projects											
960110 Source Water Land Acquisition	2014	\$ 250,000	\$ -	\$ -	\$ 250,000	82.0%	\$ 205,000	\$ -	\$ -	\$ 45,000	
960136 Additional Supply	2014	\$ 425,000	\$ -	\$ -	\$ 425,000	0.0%	\$ -	\$ -	\$ -	\$ 425,000	
960149 City Project Oversizing	2014 - 2023	\$ 450,000	\$ -	\$ -	\$ 450,000	0.0%	\$ -	\$ -	\$ -	\$ 450,000	
960165 Commerce Way BPS	2014 - 2018	\$ 5,228,000	\$ -	\$ -	\$ 5,228,000	0.0%	\$ -	\$ -	\$ -	\$ 5,228,000	7
n/a NW Development watermains (identified as Innerkip/ NP Servicing)	2014-2018	\$ 1,149,329	\$ -	\$ -	\$ 1,149,329	0.0%	\$ -	\$ -	\$ -	\$ 1,149,329	
n/a CR17 BPS	2014-2018	\$ 1,500,000	\$ -	\$ -	\$ 1,500,000	0.0%	\$ -	\$ -	\$ -	\$ 1,500,000	
n/a Devonshire to Tecumseh Watermain	2015	\$ 580,000	\$ -	\$ -	\$ 580,000	11.2%	\$ 64,960	\$ -	\$ -	\$ 515,040	5
n/a Woodstock Water Supply Upgrades	2014	\$ 550,000	\$ -	\$ -	\$ 550,000	25.0%	\$ 137,500	\$ -	\$ -	\$ 412,500	5
n/a Water Model and Related Studies (\$50,000/yr)	2014-2031	\$ 500,000	\$ -	\$ 237,000	\$ 263,000	0.0%	\$ -	\$ -	\$ -	\$ 263,000	7
Total Water		\$ 22,486,656	\$ 1,270,069	\$ 2,754,506	\$ 18,462,081		\$ 735,082	\$ 2,652,751	\$ 2,411,010	\$ 12,663,238	
Wastewater											
Wastewater Collection System											
Recovery of Completed Projects											
n/a Sanitary Sewer Oversizing	Pre 2014	\$ 100,000	\$ -	\$ -	\$ 100,000	0.0%	\$ -	\$ -	\$ 100,000	\$ -	
n/a Woodstock East End Servicing - Sewers/Force mains 2, 4, and 35	Pre 2014	\$ 1,610,916	\$ 726,509	\$ 497,000	\$ 387,407	0.0%	\$ -	\$ -	\$ 387,407	\$ -	8
n/a East Sewage Pump Station	Pre 2014	\$ 3,271,620	\$ 2,280,150	\$ 500,000	\$ 491,470	0.0%	\$ -	\$ -	\$ 491,470	\$ -	8
New Projects											
950141 NE Trunk Sewer	2015	\$ 2,000,000	\$ -	\$ -	\$ 2,000,000	20.0%	\$ 400,000	\$ -	\$ -	\$ 1,600,000	
950141 Trunk Sewer Jack Poole	2014-2015	\$ 1,930,000	\$ -	\$ -	\$ 1,930,000	33.3%	\$ 643,269	\$ -	\$ -	\$ 1,286,731	
950163 Lansdown Pump Station	2014	\$ 175,000	\$ -	\$ -	\$ 175,000	0.0%	\$ -	\$ -	\$ -	\$ 175,000	
950163 Lansdown Pump Station	2015	\$ 1,620,000	\$ -	\$ -	\$ 1,620,000	0.0%	\$ -	\$ -	\$ -	\$ 1,620,000	
950165 Sanitary Oversizing	2014-2023	\$ 400,000	\$ -	\$ -	\$ 400,000	0.0%	\$ -	\$ -	\$ -	\$ 400,000	
n/a Twinning @ 59 and Fairway	2014 - 2031	\$ 250,000	\$ -	\$ -	\$ 250,000	0.0%	\$ -	\$ -	\$ -	\$ 250,000	
Sub-Total Wastewater Collection System		\$ 11,357,536	\$ 3,006,659	\$ 997,000	\$ 7,353,877		\$ 1,043,269	\$ -	\$ 978,877	\$ 5,331,731	
Wastewater Treatment											
Recovery of Completed Projects											
Biosolids Centralized Storage Facility	Pre 2014	\$ 1,586,517	\$ -	\$ 812,505	\$ 774,012	68.8%	\$ 532,490	\$ -	\$ 241,522	\$ -	5,7,9
BMMP Dewatering (Construction & Engineering)	Pre 2014	\$ 2,779,775	\$ -	\$ -	\$ 2,779,775	70.0%	\$ 1,945,843	\$ -	\$ 833,932	\$ -	5,9
WWTP Stage 1 Upgrades (Construction & Engineering)	Pre 2014	\$ 6,376,713	\$ -	\$ -	\$ 6,376,713	25.0%	\$ 1,594,178	\$ 2,133,129	\$ 371,926	\$ 2,277,480	5
New Projects											
Biosolids Centralized Storage Facility	2016-2017	\$ 750,000	\$ -	\$ 281,754	\$ 468,246	68.8%	\$ 322,135	\$ -	\$ -	\$ 146,111	5,7,9
950104 WWTP Stage 2	2016	\$ 727,000	\$ -	\$ -	\$ 727,000	23.4%	\$ 169,973	\$ -	\$ -	\$ 557,027	
950104 WWTP Stage 2	2017	\$ 4,153,000	\$ -	\$ -	\$ 4,153,000	23.4%	\$ 970,971	\$ -	\$ -	\$ 3,182,029	
950104 WWTP Stage 2	2018	\$ 3,115,000	\$ -	\$ -	\$ 3,115,000	23.4%	\$ 728,287	\$ -	\$ -	\$ 2,386,713	
Sub-Total Wastewater Treatment		\$ 19,488,005	\$ -	\$ 1,094,259	\$ 18,393,746		\$ 6,263,877	\$ 2,133,129	\$ 1,447,380	\$ 8,549,360	
Total Wastewater		\$ 30,845,541	\$ 3,006,659	\$ 2,091,259	\$ 25,747,623		\$ 7,307,146	\$ 2,133,129	\$ 2,426,257	\$ 13,881,091	

Notes:

- 1) Source: County of Oxford staff based on current estimates, past project costing, and any available servicing studies.
- 2) Benefit to existing shares based on consideration of a variety of factors
- 3) Prior growth and Available DC Reserves is the share of projects funded from existing or committed development charge reserve fund balances.
- 4) No Post Period Benefit share is identified as projects are designed to service growth to 2041.
- 5) Benefit to existing shares consistent with 2009 DC Study.
- 6) Benefit to existing shares based on EA Study and consideration of number of existing units that will connect and benefit from the works.
- 7) These costs are shared against growth in all the service area. Allocation based on share of population in new housing unit growth over 2014-2041. Amount shown under Recover "Other" is portion being recovered from other service development charge calculations.

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APPENDIX D
TABLE 2

**COUNTY OF OXFORD
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
WATER AND WASTEWATER SERVICING - WOODSTOCK**

Growth 2014-2041

Population in New Units	13,694
Employment Growth	7,872
Ultimate Growth in Square Meters	596,348

Woodstock	Development-Related Capital Forecast ¹									
	Gross Cost	Grants and Subsidies	Prior Growth (and Existing Reserve Fund)	Benefit to Existing Share	Post Period Benefit (Calculated Oversizing)	Total DC Eligible Costs for Recovery	Residential Share	Non-Residential Share		
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	%	\$000	%	\$000
Water										
Development-Related Capital Projects - Water	\$22,486.7	\$4,024.6	\$5,063.8	\$735.1	\$0.0	\$12,663.2	75%	\$9,497.4	25%	\$3,165.8
Unadjusted Development Charge Per Capita (\$)								\$ 693.55		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 5.31
Wastewater										
Development-Related Capital Projects - Wastewater	\$30,845.5	\$5,097.9	\$4,559.4	\$7,307.1	\$0.0	\$13,881.1	75%	\$10,410.8	25%	\$3,470.3
Unadjusted Development Charge Per Capita (\$)								\$ 760.25		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 5.82

Notes:

1) No legislated service discounts for water and wastewater projects.

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
CITY OF WOODSTOCK - WATER
RESIDENTIAL DEVELOPMENT CHARGE

1.0 CITY OF WOODSTOCK - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$3,509.6)	(\$4,945.2)	(\$5,304.7)	(\$6,292.9)	(\$7,337.9)	(\$7,110.7)	(\$6,847.8)	(\$6,546.5)	(\$6,342.3)	(\$6,109.9)	(\$5,804.4)	(\$5,459.8)	(\$5,076.9)	(\$4,788.9)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
CITY OF WOODSTOCK - WATER - constant (\$000)	\$3,890.8	\$1,608.7	\$1,222.4	\$1,222.4	\$1,222.4	\$40.8	\$40.8	\$40.8	\$40.8	\$40.8	\$7.0	\$7.0	\$7.0	\$7.0	\$7.0
CITY OF WOODSTOCK - WATER - current (\$000)	\$3,890.8	\$1,640.8	\$1,271.8	\$1,297.2	\$1,323.2	\$45.0	\$45.9	\$46.9	\$47.8	\$48.8	\$8.6	\$8.8	\$8.9	\$9.1	\$9.3
POPULATION GROWTH															
- Population in New Units	512	456	1,229	629	640	649	659	669	554	559	565	573	578	472	479
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$475.1	\$431.6	\$1,186.6	\$619.4	\$642.9	\$665.0	\$688.7	\$713.1	\$602.4	\$620.0	\$639.1	\$661.2	\$680.3	\$566.6	\$586.5
- Interest on Opening Balance	\$0.0	(\$193.0)	(\$272.0)	(\$291.8)	(\$346.1)	(\$403.6)	(\$391.1)	(\$376.6)	(\$360.1)	(\$348.8)	(\$336.0)	(\$319.2)	(\$300.3)	(\$279.2)	(\$263.4)
- Interest on In-year Transactions (excl.int.)	(\$93.9)	(\$33.3)	(\$2.3)	(\$18.6)	(\$18.7)	\$10.8	\$11.2	\$11.7	\$9.7	\$10.0	\$11.0	\$11.4	\$11.7	\$9.8	\$10.1
TOTAL REVENUE	\$381.2	\$205.3	\$912.3	\$309.0	\$278.1	\$272.3	\$308.9	\$348.1	\$252.0	\$281.2	\$314.1	\$353.4	\$391.8	\$297.1	\$333.2
CLOSING CASH BALANCE	(\$3,509.6)	(\$4,945.2)	(\$5,304.7)	(\$6,292.9)	(\$7,337.9)	(\$7,110.7)	(\$6,847.8)	(\$6,546.5)	(\$6,342.3)	(\$6,109.9)	(\$5,804.4)	(\$5,459.8)	(\$5,076.9)	(\$4,788.9)	(\$4,465.0)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$4,465.0)	(\$4,107.7)	(\$3,714.7)	(\$3,279.9)	(\$2,994.5)	(\$2,684.0)	(\$2,342.8)	(\$1,970.2)	(\$1,567.1)	(\$1,301.2)	(\$1,009.2)	(\$693.8)	(\$353.6)	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
CITY OF WOODSTOCK - WATER - constant (\$000)	\$7.0	\$7.0	\$7.0	\$7.0	\$7.0	\$7.0	\$7.0	\$7.0	\$7.0	\$7.0	\$7.0	\$7.0	\$7.0	\$9,497.4
CITY OF WOODSTOCK - WATER - current (\$000)	\$9.5	\$9.7	\$9.9	\$10.1	\$10.3	\$10.5	\$10.7	\$10.9	\$11.1	\$11.3	\$11.6	\$11.8	\$12.0	\$9,842.1
POPULATION GROWTH														
- Population in New Units	482	485	491	353	353	356	358	358	244	247	247	247	250	13,694
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$602.0	\$617.9	\$638.0	\$467.9	\$477.2	\$490.9	\$503.5	\$513.6	\$357.1	\$368.7	\$376.1	\$383.6	\$396.0	\$15,971.0
- Interest on Opening Balance	(\$245.6)	(\$225.9)	(\$204.3)	(\$180.4)	(\$164.7)	(\$147.6)	(\$128.9)	(\$108.4)	(\$86.2)	(\$71.6)	(\$55.5)	(\$38.2)	(\$19.4)	(\$6,157.9)
- Interest on In-year Transactions (excl.int.)	\$10.4	\$10.6	\$11.0	\$8.0	\$8.2	\$8.4	\$8.6	\$8.8	\$6.1	\$6.3	\$6.4	\$6.5	\$6.7	\$46.6
TOTAL REVENUE	\$366.8	\$402.6	\$444.7	\$295.5	\$320.7	\$351.7	\$383.3	\$414.0	\$277.0	\$303.4	\$327.0	\$351.9	\$383.3	\$9,859.7
CLOSING CASH BALANCE	(\$4,107.7)	(\$3,714.7)	(\$3,279.9)	(\$2,994.5)	(\$2,684.0)	(\$2,342.8)	(\$1,970.2)	(\$1,567.1)	(\$1,301.2)	(\$1,009.2)	(\$693.8)	(\$353.6)	\$17.6	

2014 Adjusted Charge Per Capita	\$928
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Allocation of Capital Program	
Residential Sector	75%
Non-Residential Sector	25%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
CITY OF WOODSTOCK - WASTEWATER
RESIDENTIAL DEVELOPMENT CHARGE

1.0 CITY OF WOODSTOCK - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$1,898.4)	(\$4,601.5)	(\$4,089.7)	(\$6,331.2)	(\$7,999.7)	(\$7,752.2)	(\$7,465.7)	(\$7,137.6)	(\$6,914.4)	(\$6,660.5)	(\$6,335.2)	(\$5,968.1)	(\$5,560.0)	(\$5,255.0)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
CITY OF WOODSTOCK - WASTEWATER - constant (\$000)	\$2,362.3	\$2,937.9	\$513.0	\$2,481.7	\$1,830.5	\$40.4	\$40.4	\$40.4	\$40.4	\$40.4	\$10.4	\$10.4	\$10.4	\$10.4	\$10.4
CITY OF WOODSTOCK - WASTEWATER - current (\$000)	\$2,362.3	\$2,996.7	\$533.7	\$2,633.6	\$1,981.3	\$44.6	\$45.5	\$46.4	\$47.4	\$48.3	\$12.7	\$13.0	\$13.2	\$13.5	\$13.7
POPULATION GROWTH															
- Population in New Units	512	456	1,229	629	640	649	659	669	554	559	565	573	578	472	479
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$514.7	\$467.6	\$1,285.4	\$671.0	\$696.4	\$720.3	\$746.1	\$772.5	\$652.5	\$671.6	\$692.4	\$716.2	\$736.9	\$613.8	\$635.4
- Interest on Opening Balance	\$0.0	(\$104.4)	(\$253.1)	(\$224.9)	(\$348.2)	(\$440.0)	(\$426.4)	(\$410.6)	(\$392.6)	(\$380.3)	(\$366.3)	(\$348.4)	(\$328.2)	(\$305.8)	(\$289.0)
- Interest on In-year Transactions (excl.int.)	(\$50.8)	(\$69.6)	\$13.2	(\$54.0)	(\$35.3)	\$11.8	\$12.3	\$12.7	\$10.6	\$10.9	\$11.9	\$12.3	\$12.7	\$10.5	\$10.9
TOTAL REVENUE	\$463.9	\$293.6	\$1,045.5	\$392.1	\$312.8	\$292.1	\$332.0	\$374.6	\$270.5	\$302.2	\$338.0	\$380.1	\$421.3	\$318.5	\$357.3
CLOSING CASH BALANCE	(\$1,898.4)	(\$4,601.5)	(\$4,089.7)	(\$6,331.2)	(\$7,999.7)	(\$7,752.2)	(\$7,465.7)	(\$7,137.6)	(\$6,914.4)	(\$6,660.5)	(\$6,335.2)	(\$5,968.1)	(\$5,560.0)	(\$5,255.0)	(\$4,911.5)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$4,911.5)	(\$4,532.3)	(\$4,115.2)	(\$3,653.0)	(\$3,338.3)	(\$2,995.8)	(\$2,619.5)	(\$2,208.5)	(\$1,763.9)	(\$1,467.3)	(\$1,141.6)	(\$789.9)	(\$410.6)	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
CITY OF WOODSTOCK - WASTEWATER - constant (\$000)	\$10.4	\$10.4	\$10.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10,410.8
CITY OF WOODSTOCK - WASTEWATER - current (\$000)	\$14.0	\$14.3	\$14.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10,848.9
POPULATION GROWTH														
- Population in New Units	482	485	491	353	353	356	358	358	244	247	247	247	250	13694
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$652.1	\$669.3	\$691.2	\$506.8	\$517.0	\$531.8	\$545.5	\$556.4	\$386.8	\$399.4	\$407.4	\$415.5	\$429.0	\$17,301.0
- Interest on Opening Balance	(\$270.1)	(\$249.3)	(\$226.3)	(\$200.9)	(\$183.6)	(\$164.8)	(\$144.1)	(\$121.5)	(\$97.0)	(\$80.7)	(\$62.8)	(\$43.4)	(\$22.6)	(\$6,485.4)
- Interest on In-year Transactions (excl.int.)	\$11.2	\$11.5	\$11.8	\$8.9	\$9.0	\$9.3	\$9.5	\$9.7	\$6.8	\$7.0	\$7.1	\$7.3	\$7.5	\$36.7
TOTAL REVENUE	\$393.1	\$431.5	\$476.7	\$314.8	\$342.4	\$376.3	\$411.0	\$444.7	\$296.6	\$325.7	\$351.7	\$379.3	\$413.9	\$10,852.2
CLOSING CASH BALANCE	(\$4,532.3)	(\$4,115.2)	(\$3,653.0)	(\$3,338.3)	(\$2,995.8)	(\$2,619.5)	(\$2,208.5)	(\$1,763.9)	(\$1,467.3)	(\$1,141.6)	(\$789.9)	(\$410.6)	\$3.4	

2014 Adjusted Charge Per Capita	\$1,005
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Allocation of Capital Program	
Residential Sector	75%
Non-Residential Sector	25%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
CITY OF WOODSTOCK - WATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

1.0 CITY OF WOODSTOCK - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$1,112.4)	(\$1,506.8)	(\$1,788.8)	(\$2,073.6)	(\$2,373.5)	(\$2,243.7)	(\$2,097.1)	(\$1,932.1)	(\$1,867.4)	(\$1,793.2)	(\$1,695.7)	(\$1,586.6)	(\$1,464.8)	(\$1,365.4)
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS															
CITY OF WOODSTOCK - WATER - constant (\$000)	\$1,296.9	\$536.2	\$407.5	\$407.5	\$407.5	\$13.6	\$13.6	\$13.6	\$13.6	\$13.6	\$2.3	\$2.3	\$2.3	\$2.3	\$2.3
CITY OF WOODSTOCK - WATER - current (\$000)	\$1,296.9	\$546.9	\$423.9	\$432.4	\$441.1	\$15.0	\$15.3	\$15.6	\$15.9	\$16.3	\$2.9	\$2.9	\$3.0	\$3.0	\$3.1
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	31,110	31,685	32,094	34,331	34,875	35,605	36,180	36,786	22,794	23,090	23,290	23,555	23,864	20,186	20,295
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$214.3	\$222.7	\$230.1	\$251.0	\$260.1	\$270.9	\$280.7	\$291.1	\$184.0	\$190.1	\$195.6	\$201.8	\$208.5	\$179.9	\$184.5
- Interest on Opening Balance	\$0.0	(\$61.2)	(\$82.9)	(\$98.4)	(\$114.0)	(\$130.5)	(\$123.4)	(\$115.3)	(\$106.3)	(\$102.7)	(\$98.6)	(\$93.3)	(\$87.3)	(\$80.6)	(\$75.1)
- Interest on In-year Transactions (excl.int.)	(\$29.8)	(\$8.9)	(\$5.3)	(\$5.0)	(\$5.0)	\$4.5	\$4.6	\$4.8	\$2.9	\$3.0	\$3.4	\$3.5	\$3.6	\$3.1	\$3.2
TOTAL REVENUE	\$184.5	\$152.6	\$141.9	\$147.6	\$141.1	\$144.8	\$161.9	\$180.6	\$80.7	\$90.4	\$100.3	\$112.0	\$124.8	\$102.4	\$112.6
CLOSING CASH BALANCE	(\$1,112.4)	(\$1,506.8)	(\$1,788.8)	(\$2,073.6)	(\$2,373.5)	(\$2,243.7)	(\$2,097.1)	(\$1,932.1)	(\$1,867.4)	(\$1,793.2)	(\$1,695.7)	(\$1,586.6)	(\$1,464.8)	(\$1,365.4)	(\$1,255.9)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$1,255.9)	(\$1,133.7)	(\$999.5)	(\$853.3)	(\$760.7)	(\$659.9)	(\$549.2)	(\$427.7)	(\$296.0)	(\$245.9)	(\$191.6)	(\$133.0)	(\$69.7)	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS														
CITY OF WOODSTOCK - WATER - constant (\$000)	\$2.3	\$2.3	\$2.3	\$2.3	\$2.3	\$2.3	\$2.3	\$2.3	\$2.3	\$2.3	\$2.3	\$2.3	\$2.3	\$3,165.8
CITY OF WOODSTOCK - WATER - current (\$000)	\$3.2	\$3.2	\$3.3	\$3.4	\$3.4	\$3.5	\$3.6	\$3.6	\$3.7	\$3.8	\$3.9	\$3.9	\$4.0	\$3,280.7
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	20,605	20,760	20,834	14,276	14,305	14,460	14,615	14,665	6,350	6,355	6,355	6,355	6,673	596,348
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$191.1	\$196.4	\$201.0	\$140.5	\$143.6	\$148.0	\$152.6	\$156.2	\$69.0	\$70.4	\$71.8	\$73.3	\$78.5	\$5,057.7
- Interest on Opening Balance	(\$69.1)	(\$62.4)	(\$55.0)	(\$46.9)	(\$41.8)	(\$36.3)	(\$30.2)	(\$23.5)	(\$16.3)	(\$13.5)	(\$10.5)	(\$7.3)	(\$3.8)	(\$1,786.2)
- Interest on In-year Transactions (excl.int.)	\$3.3	\$3.4	\$3.5	\$2.4	\$2.5	\$2.5	\$2.6	\$2.7	\$1.1	\$1.2	\$1.2	\$1.2	\$1.3	\$11.5
TOTAL REVENUE	\$125.3	\$137.4	\$149.5	\$96.0	\$104.2	\$114.2	\$125.0	\$135.3	\$53.9	\$58.0	\$62.5	\$67.2	\$76.0	\$3,282.9
CLOSING CASH BALANCE	(\$1,133.7)	(\$999.5)	(\$853.3)	(\$760.7)	(\$659.9)	(\$549.2)	(\$427.7)	(\$296.0)	(\$245.9)	(\$191.6)	(\$133.0)	(\$69.7)	\$2.2	

2014 Adjusted Charge Per Square Metre	\$6.89
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Allocation of Capital Program	
Residential Sector	75%
Non-Residential Sector	25%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
CITY OF WOODSTOCK - WASTEWATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

1.0 CITY OF WOODSTOCK - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$570.3)	(\$1,380.0)	(\$1,383.1)	(\$2,081.6)	(\$2,584.9)	(\$2,443.4)	(\$2,283.4)	(\$2,103.7)	(\$2,032.4)	(\$1,950.9)	(\$1,846.7)	(\$1,730.0)	(\$1,599.6)	(\$1,493.6)
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS															
CITY OF WOODSTOCK - WASTEWATER - constant (\$000)	\$787.4	\$979.3	\$171.0	\$827.2	\$610.2	\$13.5	\$13.5	\$13.5	\$13.5	\$13.5	\$3.5	\$3.5	\$3.5	\$3.5	\$3.5
CITY OF WOODSTOCK - WASTEWATER - current (\$000)	\$787.4	\$998.9	\$177.9	\$877.9	\$660.4	\$14.9	\$15.2	\$15.5	\$15.8	\$16.1	\$4.2	\$4.3	\$4.4	\$4.5	\$4.6
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	31,110	31,685	32,094	34,331	34,875	35,605	36,180	36,786	22,794	23,090	23,290	23,555	23,864	20,186	20,295
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$232.4	\$241.4	\$249.4	\$272.2	\$282.0	\$293.7	\$304.4	\$315.6	\$199.5	\$206.1	\$212.1	\$218.8	\$226.1	\$195.1	\$200.0
- Interest on Opening Balance	\$0.0	(\$31.4)	(\$75.9)	(\$76.1)	(\$114.5)	(\$142.2)	(\$134.4)	(\$125.6)	(\$115.7)	(\$111.8)	(\$107.3)	(\$101.6)	(\$95.2)	(\$88.0)	(\$82.1)
- Interest on In-year Transactions (excl.int.)	(\$15.3)	(\$20.8)	\$1.3	(\$16.7)	(\$10.4)	\$4.9	\$5.1	\$5.3	\$3.2	\$3.3	\$3.6	\$3.8	\$3.9	\$3.3	\$3.4
TOTAL REVENUE	\$217.1	\$189.2	\$174.8	\$179.5	\$157.1	\$156.4	\$175.1	\$195.3	\$87.0	\$97.6	\$108.4	\$121.0	\$134.8	\$110.5	\$121.3
CLOSING CASH BALANCE	(\$570.3)	(\$1,380.0)	(\$1,383.1)	(\$2,081.6)	(\$2,584.9)	(\$2,443.4)	(\$2,283.4)	(\$2,103.7)	(\$2,032.4)	(\$1,950.9)	(\$1,846.7)	(\$1,730.0)	(\$1,599.6)	(\$1,493.6)	(\$1,376.9)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$1,376.9)	(\$1,246.6)	(\$1,103.4)	(\$947.3)	(\$844.4)	(\$732.5)	(\$609.4)	(\$474.6)	(\$328.3)	(\$270.2)	(\$207.4)	(\$139.5)	(\$66.4)	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS														
CITY OF WOODSTOCK - WASTEWATER - constant (\$000)	\$3.5	\$3.5	\$3.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,470.3
CITY OF WOODSTOCK - WASTEWATER - current (\$000)	\$4.7	\$4.8	\$4.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,616.3
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	20,605	20,760	20,834	14,276	14,305	14,460	14,615	14,665	6,350	6,355	6,355	6,355	6,673	596,348
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$207.2	\$212.9	\$217.9	\$152.3	\$155.7	\$160.5	\$165.5	\$169.4	\$74.8	\$76.4	\$77.9	\$79.4	\$85.1	\$5,483.8
- Interest on Opening Balance	(\$75.7)	(\$68.6)	(\$60.7)	(\$52.1)	(\$46.4)	(\$40.3)	(\$33.5)	(\$26.1)	(\$18.1)	(\$14.9)	(\$11.4)	(\$7.7)	(\$3.7)	(\$1,860.7)
- Interest on In-year Transactions (excl.int.)	\$3.5	\$3.6	\$3.7	\$2.7	\$2.7	\$2.8	\$2.9	\$3.0	\$1.3	\$1.3	\$1.4	\$1.4	\$1.5	\$9.7
TOTAL REVENUE	\$135.0	\$148.0	\$160.9	\$102.9	\$112.0	\$123.0	\$134.9	\$146.3	\$58.1	\$62.9	\$67.9	\$73.1	\$82.9	\$3,632.8
CLOSING CASH BALANCE	(\$1,246.6)	(\$1,103.4)	(\$947.3)	(\$844.4)	(\$732.5)	(\$609.4)	(\$474.6)	(\$328.3)	(\$270.2)	(\$207.4)	(\$139.5)	(\$66.4)	\$16.5	

2014 Adjusted Charge Per Square Metre	\$7.47
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Allocation of Capital Program	
Residential Sector	75%
Non-Residential Sector	25%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

APPENDIX E

WATER AND WASTEWATER AREA-SPECIFIC TECHNICAL APPENDIX TILLSONBURG

This appendix provides a brief outline of the County's water and wastewater infrastructure needs for the Tillsonburg service area. The development-related projects are required in order to maintain the servicing needs of new residential and non-residential development in the Tillsonburg service area.

The following sections set out the 2014 to 2041 development-related capital forecast and the calculation of the development charges. The cost, quantum and timing of the projects included in the forecast have been provided by the County's Public Works Department. Consistent with s.5.(1)7. of the *DCA*, there is no legislated percentage reduction in the eligible development-related capital cost for the provision of water and wastewater infrastructure. Tables 1–4 provide details of the projects included in the Tillsonburg service area development charges calculation; the content of the individual tables is as follows:

Table 1 Development-Related Water and Wastewater Capital Program

Table 2 Calculation of the Unadjusted Development Charges Rates

Table 3 Residential Cash Flow

Table 4 Non-Residential Cash Flow

The following is a summary of the calculated water and wastewater development charges rates for the Tillsonburg service area:

Residentialia	Adjusted Charge Per Capita	Charge By Unit Type ⁽¹⁾				Non-Residential Charge Per Square Metre
		Single & Semi-Detached	Rows & Other Multiples	Apartments		
				2 Bedrooms & Larger	Bachelor & 1 Bedroom	
Water	\$546.50	\$1,277	\$1,202	\$874	\$656	\$6.62
Wastewater	\$3,727.00	\$8,706	\$8,199	\$5,963	\$4,472	\$45.52
Total Water and Wastewater	\$4,273.50	\$9,983	\$9,401	\$6,837	\$5,128	\$52.14

(1) Based on Persons Per Unit Of:

2.34

2.20

1.60

1.20

COUNTY OF OXFORD
2014 DEVELOPMENT CHARGE STUDY
DEVELOPMENT-RELATED WATER & WASTEWATER CAPITAL PROGRAM
TILLSONBURG SERVICE AREA

TILLSONBURG Attributed to Development 2014 to 2041	Timing (year)	Gross Cost ¹ (Estimate)	Recoveries		Net Capital Cost	Benefit to Existing & Local Share ²		Prior Growth ³	Available DC Reserves ³	Total Growth-Related	Post 2041 ⁴	Notes
			Grants/Subs	Other		%	\$					
Water												
Recovery of Completed Projects												
n/a Watermain Oversizing Costs	Pre 2014	\$ 140,000	\$ -	\$ -	\$ 140,000	0.0%	\$ -	\$ -	\$ 140,000	\$ -	\$ -	5
n/a North Area Boosted Pressure Zone	Pre 2014	\$ 3,998,700	\$ -	\$ -	\$ 3,998,700	50.0%	\$ 1,999,350	\$ 89,096	\$ 891,531	\$ 1,018,723	\$ -	5
New Projects												
960236 North Street	2014-2016	\$ 1,415,000			\$ 1,415,000	50.0%	\$ 707,500	\$ -	\$ -	\$ 707,500	\$ -	
n/a Concession Street to West Town Limits	2014-2031	\$ 75,000	\$ -	\$ -	\$ 75,000	63.0%	\$ 47,250	\$ -	\$ -	\$ 27,750	\$ -	5
Water Model and Related Studies (\$50,000/yr)	2014 - 2041	\$ 500,000	\$ -	\$ 438,000	\$ 62,000	0.0%	\$ -	\$ -	\$ -	\$ 62,000	\$ -	7
Total Water		\$ 6,128,700	\$ -	\$ 438,000	\$ 5,690,700		\$ 2,754,100	\$ 89,096	\$ 1,031,531	\$ 1,815,973	\$ -	
Wastewater												
Wastewater Collection System												
Recovery of Completed Projects												
n/a Sanitary Sewer oversizing costs	Pre 2014	\$ 85,000	\$ -	\$ -	\$ 85,000	0.0%	\$ -	\$ -	\$ 85,000	\$ -	\$ -	5
New Projects												
950227 North Street Trunk Sewer	2014	\$ 480,000	\$ -	\$ -	\$ 480,000	15.0%	\$ 72,000	\$ -	\$ 408,000	\$ -	\$ -	
950227 North Street Trunk Sewer	2015	\$ 1,850,000	\$ -	\$ -	\$ 1,850,000	15.0%	\$ 277,500	\$ -	\$ 1,347,256	\$ 225,244	\$ -	
950227 North Street Trunk Sewer	2016	\$ 490,000	\$ -	\$ -	\$ 490,000	15.0%	\$ 73,500	\$ -	\$ -	\$ 416,500	\$ -	
Sub-total Wastewater Collection System		\$ 2,905,000	\$ -	\$ -	\$ 2,905,000		\$ 423,000	\$ -	\$ 1,840,256	\$ 641,744	\$ -	
Wastewater Treatment												
Recovery of Completed Projects												
n/a WWTP Upgrade/Expansion Class EA	Pre 2014	\$ 172,403	\$ -	\$ -	\$ 172,403	0.0%	\$ -	\$ 126,398	\$ 46,005	\$ -	\$ -	5
n/a Biosolids Centralized Storage Facility	Pre 2014	\$ 1,586,517	\$ -	\$ 1,216,282	\$ 370,235	68.8%	\$ 254,707	\$ -	\$ 115,528	\$ -	\$ -	5,7,8
n/a BMMP Dewatering (Construction & Engineering)	Pre 2014	\$ 2,882,973	\$ -	\$ -	\$ 2,882,973	75.0%	\$ 2,162,230	\$ -	\$ 720,743	\$ -	\$ -	5
New Projects												
Biosolids Centralized Storage Facility	2016-2017	\$ 750,000		\$ 638,666	\$ 111,334	68.8%	\$ 76,593	\$ -	\$ -	\$ 34,741	\$ -	5,7,8
950200 WWTP Upgrade - Engineering Phase 1	2015-2016	\$ 763,000	\$ -	\$ -	\$ 763,000	30.0%	\$ 228,900	\$ -	\$ -	\$ 534,100	\$ -	5
950200 WWTP Upgrade - Engineering Phase 2	2023-2024	\$ 3,000,000	\$ -	\$ -	\$ 3,000,000	30.0%	\$ 900,000	\$ -	\$ -	\$ 2,100,000	\$ -	5
950200 WWTP Upgrade - Construction Phase 1	2017-2018	\$ 5,120,000	\$ -	\$ -	\$ 5,120,000	30.0%	\$ 1,536,000	\$ -	\$ -	\$ 3,584,000	\$ -	5
950200 WWTP Upgrade - Construction Phase 2	2025-2027	\$ 23,500,000	\$ -	\$ -	\$ 23,500,000	30.0%	\$ 7,050,000	\$ -	\$ -	\$ 9,047,500	\$ 7,402,500	5
Sub-total Wastewater Treatment		\$ 37,774,893	\$ -	\$ 1,854,948	\$ 35,919,945		\$ 12,208,430	\$ 126,398	\$ 882,276	\$ 15,300,341	\$ 7,402,500	
Total Wastewater		\$ 40,679,893	\$ -	\$ 1,854,948	\$ 38,824,945		\$ 12,631,430	\$ 126,398	\$ 2,722,532	\$ 15,942,085	\$ 7,402,500	

Notes:

- 1) Source: County of Oxford staff based on current estimates, past project costing, and any available servicing studies.
- 2) Benefit to existing shares based on consideration of a variety of factors
- 3) Prior growth and Available DC Reserves is the share of projects funded from existing or committed development charge reserve fund balances.
- 4) Post Period Benefit shares are identified as the project is designed to service growth beyond 2041
- 5) Benefit to existing shares consistent with 2009 DC Study.
- 6) The benefit to existing share of these works are to be funded from grant monies.
- 7) These costs are shared against growth in all the service area. Allocation based on share of population in new housing unit growth over 2014-2041. Amount shown under Recover "Other" is portion being recovered from other service development charge calculations.
- 8) These project are deemed to service existing population and growth. The benefit to existing share is based on shares of existing population and population in new units (2014-2041) County-wide.

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APPENDIX E
TABLE 2

**COUNTY OF OXFORD
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
WATER AND WASTEWATER SERVICING - TILLSONBURG**

Growth 2014-2041

Population in New Units	3,256
Employment Growth	1,493
Ultimate Growth in Square Meters	110,016

Tillsonburg	Development-Related Capital Forecast ¹									
	Gross Cost (\$000)	Grants and Subsidies (\$000)	Prior Growth (and Existing Reserve Fund) (\$000)	Benefit to Existing Share (\$000)	Post Period Benefit (Calculated Oversizing) ² (\$000)	Total DC Eligible Costs for Recovery (\$000)	Residential Share %	Residential Share \$000	Non-Residential Share %	Non-Residential Share \$000
	Water									
Development-Related Capital Projects - Water	\$6,128.7	\$438.0	\$1,120.6	\$2,754.1	\$0.0	\$1,816.0	70%	\$1,271.2	30%	\$544.8
Unadjusted Development Charge Per Capita (\$)								\$ 390.41		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 4.95
Wastewater										
Development-Related Capital Projects - Wastewater	\$40,679.9	\$1,854.9	\$2,848.9	\$12,631.4	\$7,402.5	\$15,942.1	70%	\$11,159.5	30%	\$4,782.6
Unadjusted Development Charge Per Capita (\$)								\$ 3,427.35		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 43.47

Notes:

- 1) No legislated service discounts for water and wastewater projects.
- 2) Works anticipated to benefit development beyond 2041

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
TOWN OF TILLSONBURG - WATER
RESIDENTIAL DEVELOPMENT CHARGE

2.0 TOWN OF TILLSONBURG - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$823.7)	(\$961.7)	(\$1,107.5)	(\$1,083.9)	(\$1,057.4)	(\$1,025.8)	(\$989.4)	(\$949.2)	(\$924.4)	(\$894.7)	(\$861.8)	(\$825.4)	(\$783.9)	(\$735.6)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
TOWN OF TILLSONBURG - WATER - constant (\$000)	\$880.8	\$167.7	\$167.7	\$2.6	\$2.6	\$2.6	\$2.6	\$2.6	\$2.6	\$2.6	\$2.6	\$2.6	\$2.6	\$2.6	\$2.6
TOWN OF TILLSONBURG - WATER - current (\$000)	\$880.8	\$171.1	\$174.5	\$2.8	\$2.8	\$2.9	\$3.0	\$3.0	\$3.1	\$3.1	\$3.2	\$3.3	\$3.3	\$3.4	\$3.5
POPULATION GROWTH															
- Population in New Units	145	145	148	148	148	151	153	153	123	126	126	126	128	132	134
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$79.2	\$80.8	\$84.1	\$85.8	\$87.5	\$91.1	\$94.2	\$96.0	\$78.8	\$82.3	\$83.9	\$85.6	\$88.7	\$93.3	\$96.6
- Interest on Opening Balance	\$0.0	(\$45.3)	(\$52.9)	(\$60.9)	(\$59.6)	(\$58.2)	(\$56.4)	(\$54.4)	(\$52.2)	(\$50.8)	(\$49.2)	(\$47.4)	(\$45.4)	(\$43.1)	(\$40.5)
- Interest on In-year Transactions (excl.int.)	(\$22.0)	(\$2.5)	(\$2.5)	\$1.5	\$1.5	\$1.5	\$1.6	\$1.6	\$1.3	\$1.4	\$1.4	\$1.4	\$1.5	\$1.6	\$1.6
TOTAL REVENUE	\$57.2	\$33.0	\$28.7	\$26.3	\$29.4	\$34.5	\$39.4	\$43.2	\$27.9	\$32.8	\$36.1	\$39.6	\$44.8	\$51.8	\$57.8
CLOSING CASH BALANCE	(\$823.7)	(\$961.7)	(\$1,107.5)	(\$1,083.9)	(\$1,057.4)	(\$1,025.8)	(\$989.4)	(\$949.2)	(\$924.4)	(\$894.7)	(\$861.8)	(\$825.4)	(\$783.9)	(\$735.6)	(\$681.3)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$681.3)	(\$622.0)	(\$557.7)	(\$485.4)	(\$442.2)	(\$395.1)	(\$344.0)	(\$288.6)	(\$228.6)	(\$189.4)	(\$146.9)	(\$101.0)	(\$51.5)	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
TOWN OF TILLSONBURG - WATER - constant (\$000)	\$2.6	\$2.6	\$2.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1,271.2
TOWN OF TILLSONBURG - WATER - current (\$000)	\$3.5	\$3.6	\$3.7	\$2.2	\$2.3	\$2.3	\$2.3	\$2.4	\$2.4	\$2.5	\$2.5	\$2.6	\$2.6	\$1,298.9
POPULATION GROWTH														
- Population in New Units	\$134.0	\$134.0	\$137.0	\$91.0	\$91.0	\$91.0	\$91.0	\$91.0	\$62.0	\$62.0	\$62.0	\$62.0	\$62.0	3,256
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$98.6	\$100.5	\$104.8	\$71.0	\$72.4	\$73.9	\$75.4	\$76.9	\$53.4	\$54.5	\$55.6	\$56.7	\$57.8	\$2,259.4
- Interest on Opening Balance	(\$37.5)	(\$34.2)	(\$30.7)	(\$26.7)	(\$24.3)	(\$21.7)	(\$18.9)	(\$15.9)	(\$12.6)	(\$10.4)	(\$8.1)	(\$5.6)	(\$2.8)	(\$965.7)
- Interest on In-year Transactions (excl.int.)	\$1.7	\$1.7	\$1.8	\$1.2	\$1.2	\$1.3	\$1.3	\$1.3	\$0.9	\$0.9	\$0.9	\$0.9	\$1.0	\$7.0
TOTAL REVENUE	\$62.8	\$68.0	\$75.9	\$45.5	\$49.3	\$53.4	\$57.8	\$62.3	\$41.7	\$45.0	\$48.5	\$52.1	\$55.9	\$1,300.7
CLOSING CASH BALANCE	(\$622.0)	(\$557.7)	(\$485.4)	(\$442.2)	(\$395.1)	(\$344.0)	(\$288.6)	(\$228.6)	(\$189.4)	(\$146.9)	(\$101.0)	(\$51.5)	\$1.8	

2014 Adjusted Charge Per Capita	\$546.50
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Allocation of Capital Program	
Residential Sector	70%
Non-Residential Sector	30%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
TOWN OF TILLSONBURG - WASTEWATER
RESIDENTIAL DEVELOPMENT CHARGE

2.0 TOWN OF TILLSONBURG - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	\$549.9	\$772.3	\$863.9	\$114.6	(\$663.1)	(\$67.2)	\$582.5	\$1,269.3	\$1,860.3	\$1,599.5	\$1,323.0	(\$727.8)	(\$2,897.2)	(\$5,208.6)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
TOWN OF TILLSONBURG - WASTEWATER - constant (\$000)	\$0.0	\$344.6	\$490.6	\$1,266.6	\$1,254.4	\$0.0	\$0.0	\$0.0	\$0.0	\$735.0	\$735.0	\$2,111.1	\$2,111.1	\$2,111.1	\$0.0
TOWN OF TILLSONBURG - WASTEWATER - current (\$000)	\$0.0	\$351.5	\$510.5	\$1,344.1	\$1,357.8	\$0.0	\$0.0	\$0.0	\$0.0	\$878.4	\$896.0	\$2,624.9	\$2,677.4	\$2,730.9	\$0.0
POPULATION GROWTH															
- Population in New Units	145	145	148	148	148	151	153	153	123	126	126	126	128	132	134
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$540.4	\$551.2	\$573.9	\$585.4	\$597.1	\$621.4	\$642.2	\$655.0	\$537.1	\$561.2	\$572.4	\$583.9	\$605.0	\$636.4	\$659.0
- Interest on Opening Balance	\$0.0	\$19.2	\$27.0	\$30.2	\$4.0	(\$36.5)	(\$3.7)	\$20.4	\$44.4	\$65.1	\$56.0	\$46.3	(\$40.0)	(\$159.3)	(\$286.5)
- Interest on In-year Transactions (excl.int.)	\$9.5	\$3.5	\$1.1	(\$20.9)	(\$20.9)	\$10.9	\$11.2	\$11.5	\$9.4	(\$8.7)	(\$8.9)	(\$56.1)	(\$57.0)	(\$57.6)	\$11.5
TOTAL REVENUE	\$549.9	\$573.9	\$602.0	\$594.8	\$580.2	\$595.8	\$649.7	\$686.8	\$590.9	\$617.6	\$619.5	\$574.1	\$508.0	\$419.5	\$384.1
CLOSING CASH BALANCE	\$549.9	\$772.3	\$863.9	\$114.6	(\$663.1)	(\$67.2)	\$582.5	\$1,269.3	\$1,860.3	\$1,599.5	\$1,323.0	(\$727.8)	(\$2,897.2)	(\$5,208.6)	(\$4,824.6)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$4,824.6)	(\$4,406.0)	(\$3,950.7)	(\$3,440.5)	(\$3,136.8)	(\$2,806.6)	(\$2,448.1)	(\$2,059.8)	(\$1,639.6)	(\$1,359.0)	(\$1,055.6)	(\$727.9)	(\$374.4)	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
TOWN OF TILLSONBURG - WASTEWATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$11,159.5
TOWN OF TILLSONBURG - WASTEWATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$13,371.3
POPULATION GROWTH														
- Population in New Units	\$134.0	\$134.0	\$137.0	\$91.0	\$91.0	\$91.0	\$91.0	\$91.0	\$62.0	\$62.0	\$62.0	\$62.0	\$62.0	\$3,256.0
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$672.2	\$685.6	\$715.0	\$484.4	\$494.1	\$504.0	\$514.0	\$524.3	\$364.4	\$371.7	\$379.1	\$386.7	\$394.4	\$15,411.5
- Interest on Opening Balance	(\$265.4)	(\$242.3)	(\$217.3)	(\$189.2)	(\$172.5)	(\$154.4)	(\$134.6)	(\$113.3)	(\$90.2)	(\$74.7)	(\$58.1)	(\$40.0)	(\$20.6)	(\$1,985.9)
- Interest on In-year Transactions (excl.int.)	\$11.8	\$12.0	\$12.5	\$8.5	\$8.6	\$8.8	\$9.0	\$9.2	\$6.4	\$6.5	\$6.6	\$6.8	\$6.9	(\$48.0)
TOTAL REVENUE	\$418.6	\$455.3	\$510.2	\$303.7	\$330.2	\$358.5	\$388.3	\$420.2	\$280.6	\$303.5	\$327.7	\$353.4	\$380.7	\$13,377.6
CLOSING CASH BALANCE	(\$4,406.0)	(\$3,950.7)	(\$3,440.5)	(\$3,136.8)	(\$2,806.6)	(\$2,448.1)	(\$2,059.8)	(\$1,639.6)	(\$1,359.0)	(\$1,055.6)	(\$727.9)	(\$374.4)	\$6.3	

2014 Adjusted Charge Per Capita	\$3,727.00
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Allocation of Capital Program	
Residential Sector	70%
Non-Residential Sector	30%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
TOWN OF TILLSONBURG - WATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

2.0 TOWN OF TILLSONBURG - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$354.1)	(\$414.4)	(\$478.0)	(\$458.8)	(\$437.6)	(\$414.2)	(\$387.7)	(\$358.1)	(\$337.0)	(\$314.6)	(\$289.2)	(\$261.6)	(\$231.6)	(\$215.5)
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS															
TOWN OF TILLSONBURG - WATER - constant (\$000)	\$377.5	\$71.9	\$71.9	\$1.1	\$1.1	\$1.1	\$1.1	\$1.1	\$1.1	\$1.1	\$1.1	\$1.1	\$1.1	\$1.1	\$1.1
TOWN OF TILLSONBURG - WATER - current (\$000)	\$377.5	\$73.3	\$74.8	\$1.2	\$1.2	\$1.2	\$1.3	\$1.3	\$1.3	\$1.3	\$1.4	\$1.4	\$1.4	\$1.5	\$1.5
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	4,970	4,970	5,088	6,532	6,550	6,550	6,660	6,740	5,340	5,260	5,370	5,370	5,368	3,482	3,480
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$32.9	\$33.6	\$35.0	\$45.9	\$46.9	\$47.9	\$49.7	\$51.3	\$41.4	\$41.6	\$43.3	\$44.2	\$45.1	\$29.8	\$30.4
- Interest on Opening Balance	\$0.0	(\$19.5)	(\$22.8)	(\$26.3)	(\$25.2)	(\$24.1)	(\$22.8)	(\$21.3)	(\$19.7)	(\$18.5)	(\$17.3)	(\$15.9)	(\$14.4)	(\$12.7)	(\$11.9)
- Interest on In-year Transactions (excl.int.)	(\$9.5)	(\$1.1)	(\$1.1)	\$0.8	\$0.8	\$0.8	\$0.8	\$0.9	\$0.7	\$0.7	\$0.7	\$0.7	\$0.8	\$0.5	\$0.5
TOTAL REVENUE	\$23.4	\$13.0	\$11.1	\$20.4	\$22.5	\$24.6	\$27.8	\$30.9	\$22.4	\$23.8	\$26.7	\$29.0	\$31.5	\$17.6	\$19.1
CLOSING CASH BALANCE	(\$354.1)	(\$414.4)	(\$478.0)	(\$458.8)	(\$437.6)	(\$414.2)	(\$387.7)	(\$358.1)	(\$337.0)	(\$314.6)	(\$289.2)	(\$261.6)	(\$231.6)	(\$215.5)	(\$197.9)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$197.9)	(\$178.8)	(\$158.0)	(\$133.9)	(\$120.8)	(\$107.5)	(\$92.9)	(\$77.2)	(\$57.7)	(\$48.1)	(\$37.4)	(\$25.9)	(\$13.5)	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS														
TOWN OF TILLSONBURG - WATER - constant (\$000)	\$1.1	\$1.1	\$1.1	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$544.8
TOWN OF TILLSONBURG - WATER - current (\$000)	\$1.5	\$1.5	\$1.6	\$0.9	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0	\$1.1	\$1.1	\$1.1	\$1.1	\$556.7
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	\$3,480.0	\$3,480.0	\$3,646.0	\$2,234.0	\$2,140.0	\$2,140.0	\$2,140.0	\$2,374.0	\$1,306.0	\$1,330.0	\$1,330.0	\$1,330.0	\$1,356.0	\$110,016.0
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$31.0	\$31.6	\$33.8	\$21.1	\$20.6	\$21.1	\$21.5	\$24.3	\$13.6	\$14.2	\$14.4	\$14.7	\$15.3	\$896.2
- Interest on Opening Balance	(\$10.9)	(\$9.8)	(\$8.7)	(\$7.4)	(\$6.6)	(\$5.9)	(\$5.1)	(\$4.2)	(\$3.2)	(\$2.6)	(\$2.1)	(\$1.4)	(\$0.7)	(\$341.1)
- Interest on In-year Transactions (excl.int.)	\$0.5	\$0.5	\$0.6	\$0.4	\$0.3	\$0.4	\$0.4	\$0.4	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$1.7
TOTAL REVENUE	\$20.6	\$22.3	\$25.7	\$14.1	\$14.3	\$15.5	\$16.7	\$20.5	\$10.6	\$11.8	\$12.6	\$13.5	\$14.8	\$556.8
CLOSING CASH BALANCE	(\$178.8)	(\$158.0)	(\$133.9)	(\$120.8)	(\$107.5)	(\$92.9)	(\$77.2)	(\$57.7)	(\$48.1)	(\$37.4)	(\$25.9)	(\$13.5)	\$0.1	

2014 Adjusted Charge Per Square Metre	\$6.62
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Allocation of Capital Progra,	
Residential Sector	70%
Non-Residential Sector	30%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
TOWN OF TILLSONBURG - WASTEWATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

2.0 TOWN OF TILLSONBURG - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	\$230.2	\$319.8	\$353.6	\$98.3	(\$164.6)	\$161.3	\$514.3	\$890.8	\$1,211.8	\$1,161.4	\$1,113.7	\$309.0	(\$540.7)	(\$1,562.4)
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS															
TOWN OF TILLSONBURG - WASTEWATER - constant (\$000)	\$0.0	\$147.7	\$210.3	\$542.8	\$537.6	\$0.0	\$0.0	\$0.0	\$0.0	\$315.0	\$315.0	\$904.8	\$904.8	\$904.8	\$0.0
TOWN OF TILLSONBURG - WASTEWATER - current (\$000)	\$0.0	\$150.6	\$218.8	\$576.0	\$581.9	\$0.0	\$0.0	\$0.0	\$0.0	\$376.5	\$384.0	\$1,124.9	\$1,147.4	\$1,170.4	\$0.0
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	4,970	4,970	5,088	6,532	6,550	6,550	6,660	6,740	5,340	5,260	5,370	5,370	5,368	3,482	3,480
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$226.2	\$230.8	\$241.0	\$315.5	\$322.7	\$329.2	\$341.4	\$352.4	\$284.8	\$286.1	\$298.0	\$303.9	\$309.9	\$205.0	\$209.0
- Interest on Opening Balance	\$0.0	\$8.1	\$11.2	\$12.4	\$3.4	(\$9.1)	\$5.6	\$18.0	\$31.2	\$42.4	\$40.6	\$39.0	\$10.8	(\$29.7)	(\$85.9)
- Interest on In-year Transactions (excl.int.)	\$4.0	\$1.4	\$0.4	(\$7.2)	(\$7.1)	\$5.8	\$6.0	\$6.2	\$5.0	(\$2.5)	(\$2.4)	(\$22.6)	(\$23.0)	(\$26.5)	\$3.7
TOTAL REVENUE	\$230.2	\$240.3	\$252.6	\$320.7	\$319.0	\$325.9	\$353.0	\$376.6	\$321.0	\$326.0	\$336.3	\$320.3	\$297.7	\$148.7	\$126.7
CLOSING CASH BALANCE	\$230.2	\$319.8	\$353.6	\$98.3	(\$164.6)	\$161.3	\$514.3	\$890.8	\$1,211.8	\$1,161.4	\$1,113.7	\$309.0	(\$540.7)	(\$1,562.4)	(\$1,435.7)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$1,435.7)	(\$1,297.7)	(\$1,147.8)	(\$974.4)	(\$880.3)	(\$784.3)	(\$680.1)	(\$567.3)	(\$428.5)	(\$356.7)	(\$277.3)	(\$191.5)	(\$98.9)	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS														
TOWN OF TILLSONBURG - WASTEWATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$4,782.6
TOWN OF TILLSONBURG - WASTEWATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,730.6
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	\$3,480.0	\$3,480.0	\$3,646.0	\$2,234.0	\$2,140.0	\$2,140.0	\$2,140.0	\$2,374.0	\$1,306.0	\$1,330.0	\$1,330.0	\$1,330.0	\$1,356.0	\$110,016.0
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$213.2	\$217.5	\$232.4	\$145.2	\$141.9	\$144.8	\$147.6	\$167.1	\$93.7	\$97.4	\$99.3	\$101.3	\$105.4	\$6,162.7
- Interest on Opening Balance	(\$79.0)	(\$71.4)	(\$63.1)	(\$53.6)	(\$48.4)	(\$43.1)	(\$37.4)	(\$31.2)	(\$23.6)	(\$19.6)	(\$15.2)	(\$10.5)	(\$5.4)	(\$403.6)
- Interest on In-year Transactions (excl.int.)	\$3.7	\$3.8	\$4.1	\$2.5	\$2.5	\$2.5	\$2.6	\$2.9	\$1.6	\$1.7	\$1.7	\$1.8	\$1.8	(\$25.6)
TOTAL REVENUE	\$138.0	\$149.9	\$173.3	\$94.1	\$96.0	\$104.2	\$112.8	\$138.8	\$71.8	\$79.5	\$85.8	\$92.5	\$101.8	\$5,733.4
CLOSING CASH BALANCE	(\$1,297.7)	(\$1,147.8)	(\$974.4)	(\$880.3)	(\$784.3)	(\$680.1)	(\$567.3)	(\$428.5)	(\$356.7)	(\$277.3)	(\$191.5)	(\$98.9)	\$2.9	

2014 Adjusted Charge Per Square Metre	\$45.52
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Allocation of Capital Progra,	
Residential Sector	70%
Non-Residential Sector	30%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

APPENDIX F

WATER AND WASTEWATER AREA-SPECIFIC TECHNICAL APPENDIX INGERSOLL

This appendix provides a brief outline of the County's water and wastewater infrastructure needs for the Ingersoll service area. The development-related projects are required in order to maintain the servicing needs of new residential and non-residential development in the Ingersoll service area.

The following sections set out the 2014 to 2041 development-related capital forecast and the calculation of the development charges. The cost, quantum and timing of the projects included in the forecast have been provided by the County's Public Works Department. Consistent with s.5.(1)7. of the DCA, there is no legislated percentage reduction in the eligible development-related capital cost for the provision of water and wastewater infrastructure. Tables 1–4 provide details of the projects included in the Ingersoll service area development charges calculation; the content of the individual tables is as follows:

Table 1 Development-Related Water and Wastewater Capital Program

Table 2 Calculation of the Unadjusted Development Charges Rates

Table 3 Residential Cash Flow

Table 4 Non-Residential Cash Flow

The following is a summary of the calculated water and wastewater development charges rates for the Ingersoll service area:

Residential	Adjusted Charge Per Capita	Charge By Unit Type ⁽¹⁾				Non-Residential Charge Per Square Metre
		Single & Semi-Detached	Rows & Other Multiples	Apartments		
				2 Bedrooms & Larger	Bachelor & 1 Bedroom	
Water	\$565.00	\$1,680	\$1,243	\$904	\$678	\$8.15
Wastewater	\$3,340.00	\$9,931	\$7,348	\$5,344	\$4,008	\$48.15
Total Water and Wastewater	\$3,905.00	\$11,611	\$8,591	\$6,248	\$4,686	\$56.30

(1) Based on Persons Per Unit Of:

2.97

2.20

1.60

1.20

APPENDIX F
TABLE 1

COUNTY OF OXFORD
2014 DEVELOPMENT CHARGE STUDY
GROWTH-RELATED WATER & WASTEWATER CAPITAL PROGRAM
INGERSOLL SERVICE AREA

INGERSOLL Attributed to Development 2014 to 2041	Timing (year)	Capital Cost (Estimate)	Recoveries		Net Capital Cost	Benefit to Existing & Local Share ²		Prior Growth ³	Available DC Reserves ³	Total Growth-Related	Post 2041 ⁴	Notes
			Grants/Subs	Other		%	\$					
Water												
Recovery of Completed Projects												
n/a Ingersoll Street Watermain	Pre 2014	\$ 403,887	\$ -	\$ -	\$ 403,887	50.0%	\$ 201,940	\$ -	\$ 201,947	\$ -	\$ -	5
n/a Harris Street watermain	Pre 2014	\$ 405,500	\$ -	\$ -	\$ 405,500	40.0%	\$ 162,200	\$ -	\$ 23,639	\$ 219,661	\$ -	5
n/a Clark Road Watermain (Whiting to Harris)	Pre 2014	\$ 1,207,005	\$ -	\$ -	\$ 1,207,005	17.0%	\$ 204,806	\$ 380,000	\$ -	\$ 622,199	\$ -	5
n/a Ingersoll Pumphouse Upgrades (H2S Removal)	Pre 2014	\$ 9,060,000	\$ 6,070,200	\$ -	\$ 2,989,800	66.67%	\$ 1,993,200	\$ -	\$ -	\$ 996,600	\$ -	7
Water Model and Related Studies (\$50,000/yr)	2014 - 2041	\$ 500,000	\$ -	\$ 442,000	\$ 58,000	0.0%	\$ -	\$ -	\$ -	\$ 58,000	\$ -	7
Total Water		\$ 11,576,392	\$ 6,070,200	\$ 442,000	\$ 5,064,192		\$ 2,562,146	\$ 380,000	\$ 225,586	\$ 1,896,460	\$ -	
Wastewater Collection System												
Recovery of Completed Projects												
n/a Northwest Trunk Sewer	Pre 2014	\$ 151,810	\$ -	\$ -	\$ 151,810	0.0%	\$ -	\$ 135,459	\$ 16,351	\$ -	\$ -	5
n/a Whiting Creek Trunk Sewer	Pre 2014	\$ 1,591,077	\$ -	\$ -	\$ 1,591,077	11.0%	\$ 175,022	\$ 890,000	\$ 526,055	\$ -	\$ -	5
n/a Harris Street Sanitary Trunk Sewer	Pre 2014	\$ 344,500	\$ -	\$ -	\$ 344,500	40.0%	\$ 137,800	\$ -	\$ 206,700	\$ -	\$ -	5
New Projects												
950350 New Linear	2014 - 2023	\$ 4,220,000	\$ -	\$ 2,386,000	\$ 1,834,000	0.0%	\$ -	\$ -	\$ -	\$ 1,834,000	\$ -	
Sub-Total Wastewater Collection System		\$ 6,307,387	\$ -	\$ 2,386,000	\$ 3,921,387		\$ 312,822	\$ 1,025,459	\$ 749,106	\$ 1,834,000	\$ -	
Wastewater Treatment												
Recovery of Completed Projects												
Biosolids Centralized Storage Facility	Pre 2014	\$ 1,586,517	\$ -	\$ 1,376,531	\$ 209,986	68.8%	\$ 144,462	\$ -	\$ 65,524	\$ -	\$ -	5,7,8
New Projects												
Biosolids Centralized Storage Facility	2016-2017	\$ 750,000	\$ -	\$ 646,736	\$ 103,264	68.8%	\$ 71,042	\$ -	\$ -	\$ 32,222	\$ -	5,7,8
950311 WWTP - Design and Construction Phase 1	2014	\$ 4,300,000	\$ -	\$ -	\$ 4,300,000	55.0%	\$ 2,365,000	\$ 589,956	\$ 388,401	\$ 956,643	\$ -	5
950311 WWTP - Design and Construction Phase 1	2015	\$ 9,000,000	\$ -	\$ -	\$ 9,000,000	55.0%	\$ 4,950,000	\$ -	\$ -	\$ 4,050,000	\$ -	5
950311 WWTP - Design and Construction Phase 1	2016	\$ 8,500,000	\$ -	\$ -	\$ 8,500,000	55.0%	\$ 4,675,000	\$ -	\$ -	\$ 3,825,000	\$ -	5
950311 WWTP - Class EA - design phase 2	2027-2028	\$ 1,450,000	\$ -	\$ -	\$ 1,450,000	55.0%	\$ 797,500	\$ -	\$ -	\$ 652,500	\$ -	5
950311 WWTP - Stage 2 Construction	2028	\$ 9,200,000	\$ -	\$ -	\$ 9,200,000	55.0%	\$ 5,060,000	\$ -	\$ -	\$ 1,035,000	\$ 3,105,000	5
950311 WWTP - Stage 2 Construction	2041	\$ 4,300,000	\$ -	\$ -	\$ 4,300,000	55.0%	\$ 2,365,000	\$ -	\$ -	\$ -	\$ 1,935,000	5
Sub-Total Wastewater Treatment		\$ 39,086,517	\$ -	\$ 2,023,267	\$ 37,063,250		\$ 20,428,004	\$ 589,956	\$ 453,925	\$ 10,551,365	\$ 5,040,000	
Total Wastewater		\$ 45,393,904	\$ -	\$ 4,409,267	\$ 40,984,637		\$ 20,740,826	\$ 1,615,415	\$ 1,203,031	\$ 12,385,365	\$ 5,040,000	

1) Source: County of Oxford staff based on current estimates, past project costing, and any available servicing studies.
 2) Benefit to existing shares based on consideration of a variety of factors
 3) Prior growth and Available DC Reserves is the share of projects funded from existing or committed development charge reserve fund balances.
 4) Post Period Benefit shares are identified as the project is designed to service growth beyond 2041
 5) Benefit to existing shares consistent with 2009 DC Study.
 6) The benefit to existing share of these works are to be funded from grant monies.
 7) These costs are shared against growth in all the service area. Allocation based on share of population in new housing unit growth over 2014-2041. Amount shown under Recover "Other" is portion being recovered from other service development charge calculations.
 8) These project are deemed to service existing population and growth. The benefit to existing share is based on shares of existing population and population in new units (2014-2041) County-wide.

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APPENDIX F
TABLE 2

**COUNTY OF OXFORD
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
WATER AND WASTEWATER SERVICING - INGERSOLL**

Growth 2014-2041

Population in New Units	3,020
Employment Growth	1,741
Ultimate Growth in Square Meters	119,533

Ingersoll	Development-Related Capital Forecast ¹									
	Gross Cost	Grants and Subsidies	Prior Growth (and Existing Reserve Fund)	Benefit to Existing Share	Post Period Benefit (Calculated Oversizing) ²	Total DC Eligible Costs for Recovery	Residential Share	Non-Residential Share		
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	%	\$000	%	\$000
Water										
Development-Related Capital Projects - Water	\$11,576.4	\$6,512.2	\$605.6	\$2,562.1	\$0.0	\$1,896.5	63%	\$1,194.8	37%	\$701.7
Unadjusted Development Charge Per Capita (\$)								\$ 395.62		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 5.87
Wastewater										
Development-Related Capital Projects - Wastewater	\$45,393.9	\$4,409.3	\$2,818.4	\$20,740.8	\$5,040.0	\$12,385.4	63%	\$7,802.8	37%	\$4,582.6
Unadjusted Development Charge Per Capita (\$)								\$ 2,583.70		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 38.34

Notes:

- 1) No legislated service discounts for water and wastewater projects.
- 2) Works anticipated to benefit development beyond 2041

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
TOWN OF INGERSOLL - WATER
RESIDENTIAL DEVELOPMENT CHARGE

3.0 TOWN OF INGERSOLL - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$1,117.6)	(\$1,106.0)	(\$1,090.5)	(\$1,066.5)	(\$1,037.5)	(\$1,005.3)	(\$969.5)	(\$927.9)	(\$898.3)	(\$864.1)	(\$826.4)	(\$784.8)	(\$737.1)	(\$694.6)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
TOWN OF INGERSOLL - WATER - constant (\$000)	\$1,159.5	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3
TOWN OF INGERSOLL - WATER - current (\$000)	\$1,159.5	\$1.3	\$1.4	\$1.4	\$1.4	\$1.4	\$1.4	\$1.5	\$1.5	\$1.5	\$1.6	\$1.6	\$1.6	\$1.7	\$1.7
POPULATION GROWTH															
- Population in New Units	127	127	130	140	143	143	143	146	122	124	124	124	127	114	114
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$71.8	\$73.2	\$76.4	\$83.9	\$87.5	\$89.2	\$91.0	\$94.8	\$80.8	\$83.7	\$85.4	\$87.1	\$91.0	\$83.3	\$85.0
- Interest on Opening Balance	\$0.0	(\$61.5)	(\$60.8)	(\$60.0)	(\$58.7)	(\$57.1)	(\$55.3)	(\$53.3)	(\$51.0)	(\$49.4)	(\$47.5)	(\$45.4)	(\$43.2)	(\$40.5)	(\$38.2)
- Interest on In-year Transactions (excl.int.)	(\$29.9)	\$1.3	\$1.3	\$1.4	\$1.5	\$1.5	\$1.6	\$1.6	\$1.4	\$1.4	\$1.5	\$1.5	\$1.6	\$1.4	\$1.5
TOTAL REVENUE	\$41.9	\$13.0	\$16.9	\$25.4	\$30.4	\$33.7	\$37.3	\$43.1	\$31.2	\$35.7	\$39.3	\$43.1	\$49.4	\$44.2	\$48.3
CLOSING CASH BALANCE	(\$1,117.6)	(\$1,106.0)	(\$1,090.5)	(\$1,066.5)	(\$1,037.5)	(\$1,005.3)	(\$969.5)	(\$927.9)	(\$898.3)	(\$864.1)	(\$826.4)	(\$784.8)	(\$737.1)	(\$694.6)	(\$648.1)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$648.1)	(\$597.3)	(\$542.0)	(\$481.9)	(\$439.7)	(\$393.7)	(\$343.9)	(\$289.9)	(\$231.5)	(\$191.9)	(\$149.2)	(\$103.0)	(\$53.2)	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
TOWN OF INGERSOLL - WATER - constant (\$000)	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1,194.8
TOWN OF INGERSOLL - WATER - current (\$000)	\$1.8	\$1.8	\$1.8	\$1.9	\$1.9	\$1.9	\$2.0	\$2.0	\$2.1	\$2.1	\$2.1	\$2.2	\$2.2	\$1,206.6
POPULATION GROWTH														
- Population in New Units	\$114.0	\$114.0	\$114.0	\$86.0	\$86.0	\$86.0	\$86.0	\$86.0	\$60.0	\$60.0	\$60.0	\$60.0	\$60.0	\$3,020.0
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$86.7	\$88.4	\$90.2	\$69.4	\$70.8	\$72.2	\$73.6	\$75.1	\$53.5	\$54.5	\$55.6	\$56.7	\$57.9	\$2,168.7
- Interest on Opening Balance	(\$35.6)	(\$32.8)	(\$29.8)	(\$26.5)	(\$24.2)	(\$21.7)	(\$18.9)	(\$15.9)	(\$12.7)	(\$10.6)	(\$8.2)	(\$5.7)	(\$2.9)	(\$967.5)
- Interest on In-year Transactions (excl.int.)	\$1.5	\$1.5	\$1.5	\$1.2	\$1.2	\$1.2	\$1.3	\$1.3	\$0.9	\$0.9	\$1.0	\$1.0	\$1.0	\$6.0
TOTAL REVENUE	\$52.5	\$57.1	\$61.9	\$44.1	\$47.8	\$51.8	\$55.9	\$60.4	\$41.7	\$44.9	\$48.3	\$52.0	\$56.0	\$1,207.1
CLOSING CASH BALANCE	(\$597.3)	(\$542.0)	(\$481.9)	(\$439.7)	(\$393.7)	(\$343.9)	(\$289.9)	(\$231.5)	(\$191.9)	(\$149.2)	(\$103.0)	(\$53.2)	\$0.6	

2014 Adjusted Charge Per Capita	\$565.00
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Allocation of Capital Program	
Residential Sector	63%
Non-Residential Sector	37%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
TOWN OF INGERSOLL - WASTEWATER
RESIDENTIAL DEVELOPMENT CHARGE

3.0 TOWN OF INGERSOLL - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$302.1)	(\$2,669.3)	(\$5,062.4)	(\$4,971.7)	(\$4,846.3)	(\$4,706.2)	(\$4,550.1)	(\$4,365.5)	(\$4,257.6)	(\$4,128.6)	(\$3,841.9)	(\$3,529.2)	(\$3,175.9)	(\$3,119.9)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
TOWN OF INGERSOLL - WASTEWATER - constant (\$000)	\$718.2	\$2,667.0	\$2,535.4	\$125.7	\$115.5	\$115.5	\$115.5	\$115.5	\$115.5	\$115.5	\$0.0	\$0.0	\$0.0	\$205.5	\$857.6
TOWN OF INGERSOLL - WASTEWATER - current (\$000)	\$718.2	\$2,720.4	\$2,637.9	\$133.4	\$125.1	\$127.6	\$130.1	\$132.7	\$135.4	\$138.1	\$0.0	\$0.0	\$0.0	\$265.9	\$1,131.6
POPULATION GROWTH															
- Population in New Units	127	127	130	140	143	143	143	146	122	124	124	124	127	114	114
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$424.2	\$432.7	\$451.7	\$496.2	\$517.0	\$527.3	\$537.9	\$560.1	\$477.4	\$495.0	\$504.9	\$515.0	\$538.0	\$492.6	\$502.4
- Interest on Opening Balance	\$0.0	(\$16.6)	(\$146.8)	(\$278.4)	(\$273.4)	(\$266.5)	(\$258.8)	(\$250.3)	(\$240.1)	(\$234.2)	(\$227.1)	(\$211.3)	(\$194.1)	(\$174.7)	(\$171.6)
- Interest on In-year Transactions (excl.int.)	(\$8.1)	(\$62.9)	(\$60.1)	\$6.3	\$6.9	\$7.0	\$7.1	\$7.5	\$6.0	\$6.2	\$8.8	\$9.0	\$9.4	\$4.0	(\$17.3)
TOTAL REVENUE	\$416.1	\$353.2	\$244.8	\$224.1	\$250.4	\$267.7	\$286.2	\$317.3	\$243.3	\$267.1	\$286.7	\$312.7	\$353.3	\$321.9	\$313.5
CLOSING CASH BALANCE	(\$302.1)	(\$2,669.3)	(\$5,062.4)	(\$4,971.7)	(\$4,846.3)	(\$4,706.2)	(\$4,550.1)	(\$4,365.5)	(\$4,257.6)	(\$4,128.6)	(\$3,841.9)	(\$3,529.2)	(\$3,175.9)	(\$3,119.9)	(\$3,938.0)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$3,938.0)	(\$3,633.1)	(\$3,301.1)	(\$2,940.1)	(\$2,684.4)	(\$2,406.2)	(\$2,104.3)	(\$1,777.0)	(\$1,422.9)	(\$1,179.6)	(\$916.6)	(\$632.4)	(\$325.9)	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
TOWN OF INGERSOLL - WASTEWATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,802.8
TOWN OF INGERSOLL - WASTEWATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$8,396.3
POPULATION GROWTH														
- Population in New Units	114	114	114	86	86	86	86	86	60	60	60	60	60	3,020
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$512.5	\$522.7	\$533.2	\$410.2	\$418.5	\$426.8	\$435.4	\$444.1	\$316.0	\$322.3	\$328.8	\$335.4	\$342.1	\$12,820.4
- Interest on Opening Balance	(\$216.6)	(\$199.8)	(\$181.6)	(\$161.7)	(\$147.6)	(\$132.3)	(\$115.7)	(\$97.7)	(\$78.3)	(\$64.9)	(\$50.4)	(\$34.8)	(\$17.9)	(\$4,443.4)
- Interest on In-year Transactions (excl.int.)	\$9.0	\$9.1	\$9.3	\$7.2	\$7.3	\$7.5	\$7.6	\$7.8	\$5.5	\$5.6	\$5.8	\$5.9	\$6.0	\$23.5
TOTAL REVENUE	\$304.9	\$332.0	\$361.0	\$255.7	\$278.2	\$301.9	\$327.3	\$354.1	\$243.3	\$263.1	\$284.1	\$306.5	\$330.2	\$8,400.5
CLOSING CASH BALANCE	(\$3,633.1)	(\$3,301.1)	(\$2,940.1)	(\$2,684.4)	(\$2,406.2)	(\$2,104.3)	(\$1,777.0)	(\$1,422.9)	(\$1,179.6)	(\$916.6)	(\$632.4)	(\$325.9)	\$4.2	

2014 Adjusted Charge Per Capita	\$3,340.00
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Allocation of Capital Program	
Residential Sector	63%
Non-Residential Sector	37%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
TOWN OF INGERSOLL - WATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

3.0 TOWN OF INGERSOLL - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$657.9)	(\$652.7)	(\$645.1)	(\$626.9)	(\$605.7)	(\$581.5)	(\$554.3)	(\$522.3)	(\$493.1)	(\$460.3)	(\$423.5)	(\$383.1)	(\$337.9)	(\$316.8)
2009 to 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS															
TOWN OF INGERSOLL - WATER - constant (\$000)	\$681.0	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8
TOWN OF INGERSOLL - WATER - current (\$000)	\$681.0	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.9	\$0.9	\$0.9	\$0.9	\$0.9	\$1.0	\$1.0	\$1.0	\$1.0
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	4,990	4,990	5,132	6,198	6,295	6,380	6,425	6,652	6,053	6,150	6,235	6,280	6,392	3,793	3,775
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$40.7	\$41.5	\$43.5	\$53.6	\$55.5	\$57.4	\$59.0	\$62.3	\$57.8	\$59.9	\$61.9	\$63.6	\$66.1	\$40.0	\$40.6
- Interest on Opening Balance	\$0.0	(\$36.2)	(\$35.9)	(\$35.5)	(\$34.5)	(\$33.3)	(\$32.0)	(\$30.5)	(\$28.7)	(\$27.1)	(\$25.3)	(\$23.3)	(\$21.1)	(\$18.6)	(\$17.4)
- Interest on In-year Transactions (excl.int.)	(\$17.6)	\$0.7	\$0.7	\$0.9	\$1.0	\$1.0	\$1.0	\$1.1	\$1.0	\$1.0	\$1.1	\$1.1	\$1.1	\$0.7	\$0.7
TOTAL REVENUE	\$23.1	\$6.0	\$8.4	\$19.0	\$22.0	\$25.1	\$28.0	\$32.9	\$30.1	\$33.8	\$37.7	\$41.4	\$46.2	\$22.1	\$23.9
CLOSING CASH BALANCE	(\$657.9)	(\$652.7)	(\$645.1)	(\$626.9)	(\$605.7)	(\$581.5)	(\$554.3)	(\$522.3)	(\$493.1)	(\$460.3)	(\$423.5)	(\$383.1)	(\$337.9)	(\$316.8)	(\$293.9)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$293.9)	(\$269.0)	(\$240.9)	(\$210.0)	(\$190.1)	(\$168.1)	(\$144.2)	(\$118.4)	(\$88.0)	(\$72.7)	(\$56.4)	(\$38.8)	(\$19.8)	\$0.0
2009 to 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS														
TOWN OF INGERSOLL - WATER - constant (\$000)	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$701.7
TOWN OF INGERSOLL - WATER - current (\$000)	\$1.0	\$1.1	\$1.1	\$1.1	\$1.1	\$1.1	\$1.2	\$1.2	\$1.2	\$1.2	\$1.3	\$1.3	\$1.3	\$708.6
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	3,775	3,860	3,899	2,746	2,780	2,780	2,780	2,974	1,636	1,615	1,615	1,615	1,718	119,533
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$41.4	\$43.2	\$44.5	\$32.0	\$33.0	\$33.7	\$34.3	\$37.5	\$21.0	\$21.2	\$21.6	\$22.0	\$23.9	\$1,212.7
- Interest on Opening Balance	(\$16.2)	(\$14.8)	(\$13.3)	(\$11.5)	(\$10.5)	(\$9.2)	(\$7.9)	(\$6.5)	(\$4.8)	(\$4.0)	(\$3.1)	(\$2.1)	(\$1.1)	(\$504.4)
- Interest on In-year Transactions (excl.int.)	\$0.7	\$0.7	\$0.8	\$0.5	\$0.6	\$0.6	\$0.6	\$0.6	\$0.3	\$0.3	\$0.4	\$0.4	\$0.4	\$2.4
TOTAL REVENUE	\$25.9	\$29.1	\$32.0	\$21.0	\$23.1	\$25.0	\$26.9	\$31.6	\$16.5	\$17.6	\$18.9	\$20.2	\$23.2	\$710.7
CLOSING CASH BALANCE	(\$269.0)	(\$240.9)	(\$210.0)	(\$190.1)	(\$168.1)	(\$144.2)	(\$118.4)	(\$88.0)	(\$72.7)	(\$56.4)	(\$38.8)	(\$19.8)	\$2.1	

2014 Adjusted Charge Per Square Metre	\$8.15
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Allocation of Capital Progra,	
Residential Sector	63%
Non-Residential Sector	37%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
TOWN OF INGERSOLL - WASTEWATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

3.0 TOWN OF INGERSOLL - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$186.5)	(\$1,586.5)	(\$3,001.5)	(\$2,924.0)	(\$2,825.7)	(\$2,712.2)	(\$2,584.7)	(\$2,431.8)	(\$2,299.0)	(\$2,147.8)	(\$1,893.6)	(\$1,615.1)	(\$1,306.8)	(\$1,297.2)
2009 to 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS															
TOWN OF INGERSOLL - WASTEWATER - constant (\$000)	\$421.8	\$1,566.4	\$1,489.1	\$73.8	\$67.9	\$67.9	\$67.9	\$67.9	\$67.9	\$67.9	\$0.0	\$0.0	\$0.0	\$120.7	\$503.7
TOWN OF INGERSOLL - WASTEWATER - current (\$000)	\$421.8	\$1,597.7	\$1,549.2	\$78.3	\$73.5	\$74.9	\$76.4	\$77.9	\$79.5	\$81.1	\$0.0	\$0.0	\$0.0	\$156.2	\$664.6
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	4,990	4,990	5,132	6,198	6,295	6,380	6,425	6,652	6,053	6,150	6,235	6,280	6,392	3,793	3,775
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$240.3	\$245.1	\$257.1	\$316.7	\$328.1	\$339.2	\$348.4	\$367.9	\$341.5	\$353.9	\$366.0	\$376.0	\$390.3	\$236.3	\$239.8
- Interest on Opening Balance	\$0.0	(\$10.3)	(\$87.3)	(\$165.1)	(\$160.8)	(\$155.4)	(\$149.2)	(\$142.2)	(\$133.7)	(\$126.4)	(\$118.1)	(\$104.1)	(\$88.8)	(\$71.9)	(\$71.3)
- Interest on In-year Transactions (excl.int.)	(\$5.0)	(\$37.2)	(\$35.5)	\$4.2	\$4.5	\$4.6	\$4.8	\$5.1	\$4.6	\$4.8	\$6.4	\$6.6	\$6.8	\$1.4	(\$11.7)
TOTAL REVENUE	\$235.3	\$197.6	\$134.3	\$155.8	\$171.7	\$188.4	\$204.0	\$230.8	\$212.3	\$232.2	\$254.3	\$278.4	\$308.3	\$165.8	\$156.8
CLOSING CASH BALANCE	(\$186.5)	(\$1,586.5)	(\$3,001.5)	(\$2,924.0)	(\$2,825.7)	(\$2,712.2)	(\$2,584.7)	(\$2,431.8)	(\$2,299.0)	(\$2,147.8)	(\$1,893.6)	(\$1,615.1)	(\$1,306.8)	(\$1,297.2)	(\$1,805.0)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$1,805.0)	(\$1,655.4)	(\$1,486.8)	(\$1,301.1)	(\$1,180.6)	(\$1,047.1)	(\$902.3)	(\$745.5)	(\$561.2)	(\$465.7)	(\$364.0)	(\$254.2)	(\$135.8)	\$0.0
2009 to 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS														
TOWN OF INGERSOLL - WASTEWATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$4,582.6
TOWN OF INGERSOLL - WASTEWATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$4,931.1
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	3,775	3,860	3,899	2,746	2,780	2,780	2,780	2,974	1,636	1,615	1,615	1,615	1,718	119,533
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$244.6	\$255.1	\$262.9	\$188.8	\$195.0	\$198.9	\$202.9	\$221.4	\$124.2	\$125.1	\$127.6	\$130.1	\$141.2	\$7,164.4
- Interest on Opening Balance	(\$99.3)	(\$91.0)	(\$81.8)	(\$71.6)	(\$64.9)	(\$57.6)	(\$49.6)	(\$41.0)	(\$30.9)	(\$25.6)	(\$20.0)	(\$14.0)	(\$7.5)	(\$2,239.4)
- Interest on In-year Transactions (excl.int.)	\$4.3	\$4.5	\$4.6	\$3.3	\$3.4	\$3.5	\$3.6	\$3.9	\$2.2	\$2.2	\$2.2	\$2.3	\$2.5	\$6.6
TOTAL REVENUE	\$149.6	\$168.5	\$185.7	\$120.5	\$133.5	\$144.8	\$156.8	\$184.3	\$95.5	\$101.7	\$109.8	\$118.4	\$136.2	\$4,931.5
CLOSING CASH BALANCE	(\$1,655.4)	(\$1,486.8)	(\$1,301.1)	(\$1,180.6)	(\$1,047.1)	(\$902.3)	(\$745.5)	(\$561.2)	(\$465.7)	(\$364.0)	(\$254.2)	(\$135.8)	\$0.4	

2014 Adjusted Charge Per Square Metre	\$48.15
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Allocation of Capital Progra,	
Residential Sector	63%
Non-Residential Sector	37%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

APPENDIX G

WATER AND WASTEWATER AREA-SPECIFIC TECHNICAL APPENDIX PLATTSVILLE

This appendix provides a brief outline of the County's water and wastewater infrastructure needs for the Plattsville service area. The development-related projects are required in order to maintain the servicing needs of new residential and non-residential development in the Plattsville service area.

The following sections set out the 2014 to 2041 (or build-out) development-related capital forecast and the calculation of the development charges. The cost, quantum and timing of the projects included in the forecast have been provided by the County's Public Works Department. Consistent with s.5.(1)7. of the DCA, there is no legislated percentage reduction in the eligible development-related capital cost for the provision of water and wastewater infrastructure. Tables 1–4 provide details of the projects included in the Plattsville service area development charges calculation; the content of the individual tables is as follows:

Table 1 Development-Related Water and Wastewater Capital Program

Table 2 Calculation of the Unadjusted Development Charges Rates

Table 3 Residential Cash Flow

Table 4 Non-Residential Cash Flow

The following is a summary of the calculated water and wastewater development charges rates for the Plattsville service area:

Residential	Adjusted Charge Per Capita	Charge By Unit Type ⁽¹⁾				Non-Residential Charge Per Square Metre
		Single & Semi-Detached	Rows & Other Multiples	Apartments		
				2 Bedrooms & Larger	Bachelor & 1 Bedroom	
Water	\$1,122	\$4,151	\$2,468	\$1,795	\$1,346	\$33.02
Wastewater	\$3,186	\$11,788	\$7,009	\$5,098	\$3,823	\$93.68
Total Water and Wastewater	\$4,308	\$15,939	\$9,477	\$6,893	\$5,169	\$126.70

(1) Based on Persons Per Unit Of:

3.70

2.20

1.60

1.20

COUNTY OF OXFORD
2014 DEVELOPMENT CHARGE STUDY
DEVELOPMENT-RELATED WATER & WASTEWATER CAPITAL PROGRAM
PLATTSVILLE SERVICE AREA

PLATTSVILLE Attributed to Development 2014 to build out (2041)	Timing (year)	Capital Cost (Estimate)	Recoveries		Net Capital Cost	Benefit to Existing & Local Share ²		Prior Growth ³	Available DC Reserves ³	Total Growth-Related	Notes
			Grants/Subs	Other		%	\$				
Water											
Recovery of Completed Projects											
Water Tower	Pre 2014	\$ 1,752,240	\$ -	\$ -	\$ 1,752,240	20.0%	\$ 350,448	\$ -	\$ 430,817	\$ 970,975	5
New Projects											
Water Model and Related Studies (\$50,000/yr)	2014 - 2041	\$ 500,000	\$ -	\$ 483,000	\$ 17,000	0.0%	\$ -	\$ -	\$ -	\$ 17,000	6
Total Water		\$ 2,252,240	\$ -	\$ 483,000	\$ 1,769,240		\$ 350,448	\$ -	\$ 430,817	\$ 987,975	
Wastewater Collection System											
Recovery of Completed Projects											
Fennell Street Pumping Station Upgrade	Pre 2014	\$ 262,947	\$ -	\$ -	\$ 262,947	20.0%	\$ 52,589	\$ 40,000	\$ 79,697	\$ 90,661	5
Sub-Total Wastewater Collection System		\$ 262,947	\$ -	\$ -	\$ 262,947		\$ 52,589	\$ 40,000	\$ 79,697	\$ 90,661	
Wastewater Treatment											
Recovery of Completed Projects											
Lagoon Upgrades (new cell & sand filter)	Pre 2014	\$ 333,205	\$ -	\$ -	\$ 333,205	20.0%	\$ 66,641	\$ 266,564	\$ -	\$ -	5
Debt Recovery* - Lagoon Upgrades (new cell & sand filter)	Pre 2014	\$ 672,671	\$ -	\$ -	\$ 672,671	20.0%	\$ 134,534	\$ 301,878	\$ -	\$ 236,259	5
Debt Recovery* - Lagoon Upgrades (new cell & sand filter)	2014-2024	\$ 2,497,329	\$ -	\$ -	\$ 2,497,329	20.0%	\$ 499,466	\$ -	\$ -	\$ 1,997,863	5
Sub-Total Wastewater Treatment		\$ 3,503,205	\$ -	\$ -	\$ 3,503,205		\$ 700,641	\$ 568,442	\$ -	\$ 2,234,122	
Total Wastewater		\$ 3,766,152	\$ -	\$ -	\$ 3,766,152		\$ 753,230	\$ 608,442	\$ 79,697	\$ 2,324,783	

Notes:

- 1) Source: County of Oxford staff based on current estimates, past project costing, and any available servicing studies.
- 2) Benefit to existing shares based on consideration of a variety of factors
- 3) Prior growth and Available DC Reserves is the share of projects funded from existing or committed development charge reserve fund balances.
- 4) No Post Period Benefit share is identified as projects are designed to service growth to 2041.
- 5) Benefit to existing shares consistent with 2009 DC Study.
- 6) These costs are shared against growth in all the service area. Allocation based on share of population in new housing unit growth over 2014-2041. Amount shown under Recover "Other" is portion being recovered from other service development charge calculations.

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APPENDIX G
TABLE 2

**COUNTY OF OXFORD
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
WATER AND WASTEWATER SERVICING - PLATTSVILLE**

Growth 2014-2041

Population in New Units	892
Employment Growth	89
Ultimate Growth in Square Meters	7,582

Plattsville	Development-Related Capital Forecast ¹									
	Gross Cost	Grants and Subsidies	Prior Growth (and Existing Reserve Fund)	Benefit to Existing Share	Post Period Benefit (Calculated Oversizing)	Total DC Eligible Costs for Recovery	Residential Share	Non-Residential Share		
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	%	\$000	%	\$000
Water										
Development-Related Capital Projects - Water	\$2,252.2	\$483.0	\$430.8	\$350.4	\$0.0	\$988.0	80%	\$790.4	20%	\$197.6
Unadjusted Development Charge Per Capita (\$)								\$ 886.08		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 26.06
Wastewater										
Development-Related Capital Projects - Wastewater	\$3,766.2	\$0.0	\$688.1	\$753.2	\$0.0	\$2,324.8	80%	\$1,859.8	20%	\$465.0
Unadjusted Development Charge Per Capita (\$)								\$ 2,085.01		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 61.32

Notes:

1) No legislated service discounts for water and wastewater projects.

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
PLATTSVILLE SERVICE AREA - WATER
RESIDENTIAL DEVELOPMENT CHARGE

4.0 PLATTSVILLE SERVICE AREA - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$706.4)	(\$664.2)	(\$630.0)	(\$598.6)	(\$564.1)	(\$526.3)	(\$491.5)	(\$453.6)	(\$412.3)	(\$367.4)	(\$325.6)	(\$280.2)	(\$231.2)	(\$185.4)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
PLATTSVILLE SERVICE AREA - WATER - constant (\$000)	\$777.3	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5
PLATTSVILLE SERVICE AREA - WATER - current (\$000)	\$777.3	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.6	\$0.6	\$0.6	\$0.6	\$0.6	\$0.6	\$0.6	\$0.6
POPULATION GROWTH															
- Population in New Units	80	70	60	55	55	55	50	50	50	50	45	45	45	40	37
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$89.8	\$80.1	\$70.0	\$65.5	\$66.8	\$68.1	\$63.2	\$64.4	\$65.7	\$67.0	\$61.5	\$62.8	\$64.0	\$58.1	\$54.8
- Interest on Opening Balance	\$0.0	(\$38.9)	(\$36.5)	(\$34.7)	(\$32.9)	(\$31.0)	(\$28.9)	(\$27.0)	(\$24.9)	(\$22.7)	(\$20.2)	(\$17.9)	(\$15.4)	(\$12.7)	(\$10.2)
- Interest on In-year Transactions (excl.int.)	(\$18.9)	\$1.4	\$1.2	\$1.1	\$1.2	\$1.2	\$1.1	\$1.1	\$1.1	\$1.2	\$1.1	\$1.1	\$1.1	\$1.0	\$0.9
TOTAL REVENUE	\$70.9	\$42.6	\$34.7	\$32.0	\$35.0	\$38.3	\$35.3	\$38.5	\$41.9	\$45.5	\$42.4	\$46.0	\$49.7	\$46.4	\$45.6
CLOSING CASH BALANCE	(\$706.4)	(\$664.2)	(\$630.0)	(\$598.6)	(\$564.1)	(\$526.3)	(\$491.5)	(\$453.6)	(\$412.3)	(\$367.4)	(\$325.6)	(\$280.2)	(\$231.2)	(\$185.4)	(\$140.5)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$140.5)	(\$95.1)	(\$46.1)	\$6.6	\$6.1	\$5.6	\$5.1	\$4.5	\$3.9	\$3.2	\$2.5	\$1.8	\$1.0	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
PLATTSVILLE SERVICE AREA - WATER - constant (\$000)	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$790.4
PLATTSVILLE SERVICE AREA - WATER - current (\$000)	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$794.8
POPULATION GROWTH														
- Population in New Units	35	35	35	0	0	0	0	0	0	0	0	0	0	892
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$52.9	\$53.9	\$55.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,163.6
- Interest on Opening Balance	(\$7.7)	(\$5.2)	(\$2.5)	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.1	\$0.1	\$0.1	\$0.1	\$0.0	(\$368.1)
- Interest on In-year Transactions (excl.int.)	\$0.9	\$0.9	\$1.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.5)
TOTAL REVENUE	\$46.1	\$49.6	\$53.4	\$0.2	\$0.2	\$0.2	\$0.2	\$0.1	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0
CLOSING CASH BALANCE	(\$95.1)	(\$46.1)	\$6.6	\$6.1	\$5.6	\$5.1	\$4.5	\$3.9	\$3.2	\$2.5	\$1.8	\$1.0	\$0.2	

2014 Adjusted Charge Per Capita	\$1,122.00
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Allocation of Capital Program	
Residential Sector	80%
Non-Residential Sector	20%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
PLATTSVILLE SERVICE AREA - WASTEWATER
RESIDENTIAL DEVELOPMENT CHARGE

4.0 PLATTSVILLE SERVICE AREA - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$518.8)	(\$525.6)	(\$560.1)	(\$607.6)	(\$651.7)	(\$692.0)	(\$746.4)	(\$797.5)	(\$844.9)	(\$888.1)	(\$946.3)	(\$816.9)	(\$676.9)	(\$546.3)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
PLATTSVILLE SERVICE AREA - WASTEWATER - constant (\$000)	\$406.8	\$145.3	\$145.3	\$145.3	\$145.3	\$145.3	\$145.3	\$145.3	\$145.3	\$145.3	\$145.3	\$0.0	\$0.0	\$0.0	\$0.0
PLATTSVILLE SERVICE AREA - WASTEWATER - current (\$000)	\$406.8	\$148.2	\$151.2	\$154.2	\$157.3	\$160.4	\$163.6	\$166.9	\$170.2	\$173.6	\$177.1	\$0.0	\$0.0	\$0.0	\$0.0
POPULATION GROWTH															
- Population in New Units	80	70	60	55	55	55	50	50	50	50	45	45	45	40	37
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$254.9	\$227.5	\$198.9	\$186.0	\$189.7	\$193.5	\$179.4	\$183.0	\$186.6	\$190.4	\$174.8	\$178.3	\$181.8	\$164.9	\$155.5
- Interest on Opening Balance	\$0.0	(\$28.5)	(\$28.9)	(\$30.8)	(\$33.4)	(\$35.8)	(\$38.1)	(\$41.1)	(\$43.9)	(\$46.5)	(\$48.8)	(\$52.0)	(\$44.9)	(\$37.2)	(\$30.0)
- Interest on In-year Transactions (excl.int.)	(\$4.2)	\$1.4	\$0.8	\$0.6	\$0.6	\$0.6	\$0.3	\$0.3	\$0.3	\$0.3	(\$0.1)	\$3.1	\$3.2	\$2.9	\$2.7
- Interest Payments Lagoon Upgrades	(\$362.6)	(\$59.0)	(\$54.1)	(\$49.0)	(\$43.7)	(\$38.2)	(\$32.4)	(\$26.4)	(\$20.2)	(\$13.7)	(\$7.0)	\$0.0	\$0.0	\$0.0	\$0.0
TOTAL REVENUE	(\$111.9)	\$141.3	\$116.7	\$106.7	\$113.2	\$120.1	\$109.2	\$115.8	\$122.8	\$130.5	\$118.9	\$129.4	\$140.1	\$130.6	\$128.2
CLOSING CASH BALANCE	(\$518.8)	(\$525.6)	(\$560.1)	(\$607.6)	(\$651.7)	(\$692.0)	(\$746.4)	(\$797.5)	(\$844.9)	(\$888.1)	(\$946.3)	(\$816.9)	(\$676.9)	(\$546.3)	(\$418.1)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$418.1)	(\$288.4)	(\$148.5)	\$2.2	\$2.3	\$2.3	\$2.4	\$2.5	\$2.6	\$2.7	\$2.8	\$2.9	\$3.0	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
PLATTSVILLE SERVICE AREA - WASTEWATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,859.8
PLATTSVILLE SERVICE AREA - WASTEWATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,029.6
POPULATION GROWTH														
- Population in New Units	35	35	35	0	0	0	0	0	0	0	0	0	0	892
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$150.1	\$153.1	\$156.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,304.5
- Interest on Opening Balance	(\$23.0)	(\$15.9)	(\$8.2)	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	(\$586.2)
- Interest on In-year Transactions (excl.int.)	\$2.6	\$2.7	\$2.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$20.8
- Interest Payments Lagoon Upgrades	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$706.4)
TOTAL REVENUE	\$129.7	\$139.9	\$150.7	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$2,032.7
CLOSING CASH BALANCE	(\$288.4)	(\$148.5)	\$2.2	\$2.3	\$2.3	\$2.4	\$2.5	\$2.6	\$2.7	\$2.8	\$2.9	\$3.0	\$3.1	

2014 Adjusted Charge Per Capita	\$3,186.00
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Allocation of Capital Program	
Residential Sector	80%
Non-Residential Sector	20%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

APPENDIX G
TABLE 4 - PAGE 1

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
PLATTSVILLE SERVICE AREA - WATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

4.0 PLATTSVILLE SERVICE AREA - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$176.5)	(\$166.0)	(\$157.5)	(\$149.6)	(\$141.0)	(\$131.5)	(\$122.8)	(\$113.4)	(\$103.1)	(\$91.8)	(\$81.3)	(\$70.0)	(\$57.7)	(\$46.3)
2009 to 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS															
PLATTSVILLE SERVICE AREA - WATER - constant (\$000)	\$194.3	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1
PLATTSVILLE SERVICE AREA - WATER - current (\$000)	\$194.3	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.2	\$0.2	\$0.2	\$0.2
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	680	595	510	468	468	468	425	425	425	425	383	383	383	340	315
	9%	8%	7%	6%	6%	6%	6%	6%	6%	6%	5%	5%	5%	4%	4%
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$22.5	\$20.0	\$17.5	\$16.4	\$16.7	\$17.0	\$15.8	\$16.1	\$16.4	\$16.8	\$15.4	\$15.7	\$16.0	\$14.5	\$13.7
- Interest on Opening Balance	\$0.0	(\$9.7)	(\$9.1)	(\$8.7)	(\$8.2)	(\$7.8)	(\$7.2)	(\$6.8)	(\$6.2)	(\$5.7)	(\$5.0)	(\$4.5)	(\$3.8)	(\$3.2)	(\$2.5)
- Interest on In-year Transactions (excl.int.)	(\$4.7)	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.2
TOTAL REVENUE	\$17.8	\$10.6	\$8.7	\$8.0	\$8.8	\$9.5	\$8.8	\$9.6	\$10.4	\$11.4	\$10.6	\$11.5	\$12.4	\$11.6	\$11.4
CLOSING CASH BALANCE	(\$176.5)	(\$166.0)	(\$157.5)	(\$149.6)	(\$141.0)	(\$131.5)	(\$122.8)	(\$113.4)	(\$103.1)	(\$91.8)	(\$81.3)	(\$70.0)	(\$57.7)	(\$46.3)	(\$35.0)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$35.0)	(\$23.7)	(\$11.4)	\$1.8	\$1.7	\$1.6	\$1.5	\$1.3	\$1.2	\$1.0	\$0.8	\$0.7	\$0.5	\$0.0
2009 to 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS														
PLATTSVILLE SERVICE AREA - WATER - constant (\$000)	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$197.6
PLATTSVILLE SERVICE AREA - WATER - current (\$000)	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$198.7
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	298	298	298	-	-	-	-	-	-	-	-	-	-	7,582
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$13.2	\$13.5	\$13.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$291.0
- Interest on Opening Balance	(\$1.9)	(\$1.3)	(\$0.6)	\$0.1	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$91.9)
- Interest on In-year Transactions (excl.int.)	\$0.2	\$0.2	\$0.2	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.1)
TOTAL REVENUE	\$11.5	\$12.4	\$13.4	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$199.0
CLOSING CASH BALANCE	(\$23.7)	(\$11.4)	\$1.8	\$1.7	\$1.6	\$1.5	\$1.3	\$1.2	\$1.0	\$0.8	\$0.7	\$0.5	\$0.3	

2014 Adjusted Charge Per Square Metre	\$33.02
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Allocation of Capital Program	
Residential Sector	80%
Non-Residential Sector	20%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

**APPENDIX G
TABLE 4 - PAGE 2
COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
PLATTSVILLE SERVICE AREA - WASTEWATER
NON-RESIDENTIAL DEVELOPMENT CHARGE**

4.0 PLATTSVILLE SERVICE AREA - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$129.7)	(\$131.4)	(\$140.1)	(\$151.9)	(\$163.0)	(\$173.0)	(\$186.7)	(\$199.5)	(\$211.4)	(\$222.2)	(\$236.8)	(\$204.4)	(\$169.5)	(\$136.9)
2009 to 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS															
PLATTSVILLE SERVICE AREA - WASTEWATER - constant (\$000)	\$101.7	\$36.3	\$36.3	\$36.3	\$36.3	\$36.3	\$36.3	\$36.3	\$36.3	\$36.3	\$36.3	\$0.0	\$0.0	\$0.0	\$0.0
PLATTSVILLE SERVICE AREA - WASTEWATER - current (\$000)	\$101.7	\$37.1	\$37.8	\$38.5	\$39.3	\$40.1	\$40.9	\$41.7	\$42.6	\$43.4	\$44.3	\$0.0	\$0.0	\$0.0	\$0.0
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	680	595	510	468	468	468	425	425	425	425	383	383	383	340	315
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$63.7	\$56.9	\$49.7	\$46.5	\$47.4	\$48.4	\$44.8	\$45.7	\$46.6	\$47.6	\$43.7	\$44.6	\$45.4	\$41.2	\$38.9
- Interest on Opening Balance	\$0.0	(\$7.1)	(\$7.2)	(\$7.7)	(\$8.4)	(\$9.0)	(\$9.5)	(\$10.3)	(\$11.0)	(\$11.6)	(\$12.2)	(\$13.0)	(\$11.2)	(\$9.3)	(\$7.5)
- Interest on In-year Transactions (excl.int.)	(\$1.0)	\$0.3	\$0.2	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	(\$0.0)	\$0.8	\$0.8	\$0.7	\$0.7
- Interest Payments Lagoon Upgrades	(\$90.7)	(\$14.8)	(\$13.5)	(\$12.3)	(\$10.9)	(\$9.5)	(\$8.1)	(\$6.6)	(\$5.0)	(\$3.4)	(\$1.7)	\$0.0	\$0.0	\$0.0	\$0.0
TOTAL REVENUE	(\$28.0)	\$35.4	\$29.2	\$26.7	\$28.3	\$30.0	\$27.3	\$28.9	\$30.6	\$32.6	\$29.7	\$32.4	\$35.0	\$32.6	\$32.1
CLOSING CASH BALANCE	(\$129.7)	(\$131.4)	(\$140.1)	(\$151.9)	(\$163.0)	(\$173.0)	(\$186.7)	(\$199.5)	(\$211.4)	(\$222.2)	(\$236.8)	(\$204.4)	(\$169.5)	(\$136.9)	(\$104.8)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$104.8)	(\$72.4)	(\$37.5)	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.0
2009 to 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS														
PLATTSVILLE SERVICE AREA - WASTEWATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$465.0
PLATTSVILLE SERVICE AREA - WASTEWATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$507.4
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	298	298	298	-	-	-	-	-	-	-	-	-	-	7,582
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$37.5	\$38.3	\$39.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$825.9
- Interest on Opening Balance	(\$5.8)	(\$4.0)	(\$2.1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$146.9)
- Interest on In-year Transactions (excl.int.)	\$0.7	\$0.7	\$0.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5.2
- Interest Payments Lagoon Upgrades	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$176.6)
TOTAL REVENUE	\$32.4	\$35.0	\$37.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$507.6
CLOSING CASH BALANCE	(\$72.4)	(\$37.5)	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	

2014 Adjusted Charge Per Square Metre	\$93.68
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Allocation of Capital Program	
Residential Sector	80%
Non-Residential Sector	20%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

APPENDIX H

WATER AND WASTEWATER AREA-SPECIFIC TECHNICAL APPENDIX DRUMBO

This appendix provides a brief outline of the County's water and wastewater infrastructure needs for the Drumbo service area. The development-related projects are required in order to maintain the servicing needs of new residential and non-residential development in the Drumbo service area.

The following sections set out the 2014 to 2041 (or build-out) development-related capital forecast and the calculation of the development charges. The cost, quantum and timing of the projects included in the forecast have been provided by the County's Public Works Department. Consistent with s.5.(1)7. of the DCA, there is no legislated percentage reduction in the eligible development-related capital cost for the provision of water and wastewater infrastructure. Tables 1–4 provide details of the projects included in the Drumbo service area development charges calculation; the content of the individual tables is as follows:

Table 1 Development-Related Water and Wastewater Capital Program

Table 2 Calculation of the Unadjusted Development Charges Rates

Table 3 Residential Cash Flow

Table 4 Non-Residential Cash Flow

The following is a summary of the calculated water and wastewater development charges rates for the Drumbo service area:

Residential	Adjusted Charge Per Capita	Charge By Unit Type ⁽¹⁾				Non-Residential Charge Per Square Metre
		Single & Semi-Detached	Rows & Other Multiples	Apartments		
				2 Bedrooms & Larger	Bachelor & 1 Bedroom	
Water	\$0	\$0	\$0	\$0	\$0	\$0.00
Wastewater	\$2,101	\$7,774	\$4,622	\$3,362	\$2,521	\$27.45
Total Water and Wastewater	\$2,101	\$7,774	\$4,622	\$3,362	\$2,521	\$27.45

(1) Based on Persons Per Unit Of:

3.70

2.20

1.60

1.20

APPENDIX H
TABLE 1COUNTY OF OXFORD
2014 DEVELOPMENT CHARGE STUDY
DEVELOPMENT-RELATED WATER & WASTEWATER CAPITAL PROGRAM
DRUMBO SERVICE AREA

DRUMBO Attributed to Development 2014 to build out	Timing (year)	Capital Cost (Estimate)	Recoveries		Net Capital Cost	Benefit to Existing & Local Share ²		Prior Growth ³	Available DC Reserves ³	Total Growth-Related	Notes
			Grants/Subs	Other		%	\$				
Water											
Recovery of Completed Projects											
n/a Taylor Well Raw Watermain	Pre 2014	\$ 25,815	\$ -	\$ -	\$ 25,815	0.0%	\$ -	\$ 9,130	\$ 16,685	\$ -	
n/a Water System Cost from Original Construction (Debt)	Pre 2014	\$ 312,175	\$ -	\$ -	\$ 312,175	65.0%	\$ 202,910	\$ -	\$ 109,265	\$ -	5
n/a Highlift Pumping Capacity Increase and Well 1	Pre 2014	\$ 489,813	\$ -	\$ -	\$ 489,813	87.5%	\$ 428,586	\$ -	\$ 61,227	\$ -	5
New Projects											
Water Model and Related Studies (\$50,000/yr)	2014 - 2041	\$ 500,000	\$ -	\$ 495,000	\$ 5,000	0.0%	\$ -	\$ -	\$ 5,000	\$ -	6
Total Water		\$ 1,327,803	\$ -	\$ 495,000	\$ 832,803		\$ 631,496	\$ 9,130	\$ 192,177	\$ -	
Wastewater											
Wastewater Treatment											
Recovery of Completed Projects											
Biosolids Centralized Storage Facility	Pre 2014	\$ 1,586,517	\$ -	\$ 1,536,896	\$ 49,621	68.8%	\$ 34,137	\$ -	\$ 15,484	\$ -	5,6,7
New Projects											
Biosolids Centralized Storage Facility	2016-2017	\$ 750,000		\$ 740,289	\$ 9,711	68.8%	\$ 6,681	\$ -	\$ -	\$ 3,030	5,6,7
950810 Drumbo WWTP	2014	\$ 400,000	\$ -	\$ -	\$ 400,000	33.3%	\$ 133,333	\$ -	\$ 266,667	\$ -	
950810 Drumbo WWTP	2015	\$ 1,100,000	\$ -	\$ -	\$ 1,100,000	33.3%	\$ 366,667	\$ -	\$ 117,473	\$ 615,860	
Total Wastewater		\$ 3,836,517	\$ -	\$ 2,277,185	\$ 1,559,332		\$ 540,818	\$ -	\$ 399,624	\$ 618,890	

Notes:

- 1) Source: County of Oxford staff based on current estimates, past project costing, and any available servicing studies.
- 2) Benefit to existing shares based on consideration of a variety of factors
- 3) Prior growth and Available DC Reserves is the share of projects funded from existing or committed development charge reserve fund balances.
- 4) No Post Period Benefit share is identified as projects are designed to service full build-out.
- 5) Benefit to existing shares consistent with 2009 DC Study.
- 6) These costs are shared against growth in all the service area. Allocation based on share of population in new housing unit growth over 2014-2041. Amount shown under Recover "Other" is portion being recovered from other service development charge calculations.
- 7) These project are deemed to service existing population and growth. The benefit to existing share is based on shares of existing population and population in new units (2014-2041) County-wide.

APPENDIX H
TABLE 2

COUNTY OF OXFORD
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
WATER AND WASTEWATER SERVICING - DRUMBO

Growth 2014-2041

Population in New Units	284
Employment Growth	28
Ultimate Growth in Square Meters	2,414

Drumbo	Development-Related Capital Forecast ¹									
	Gross Cost	Grants and Subsidies	Prior Growth (and Existing Reserve Fund)	Benefit to Existing Share	Post Period Benefit (Calculated Oversizing)	Total DC Eligible Costs for Recovery	Residential Share	Non-Residential Share		
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	%	\$000	%	\$000
Water										
Development-Related Capital Projects - Water	\$1,327.8	\$495.0	\$201.3	\$631.5	\$0.0	\$0.0	90%	\$0.0	10%	\$0.0
Unadjusted Development Charge Per Capita (\$)							\$	-		
Unadjusted Development Charge Per Sq. M. (\$)									\$	-
Wastewater										
Development-Related Capital Projects - Wastewater	\$3,836.5	\$2,277.2	\$399.6	\$540.8	\$0.0	\$618.9	90%	\$557.0	10%	\$61.9
Unadjusted Development Charge Per Capita (\$)							\$	1,961.27		
Unadjusted Development Charge Per Sq. M. (\$)									\$	25.64

Notes:

1) No legislated service discounts for water and wastewater projects.

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
DRUMBO SERVICE AREA - WATER
RESIDENTIAL DEVELOPMENT CHARGE

5.0 DRUMBO SERVICE AREA - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
DRUMBO SERVICE AREA - WATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
DRUMBO SERVICE AREA - WATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
POPULATION GROWTH															
- Population in New Units	50	50	50	30	30	30	30	14	0	0	0	0	0	0	0
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- Interest on Opening Balance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- Interest on In-year Transactions (excl.int.)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
TOTAL REVENUE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
CLOSING CASH BALANCE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
DRUMBO SERVICE AREA - WATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
DRUMBO SERVICE AREA - WATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
POPULATION GROWTH														
- Population in New Units	0	0	0	0	0	0	0	0	0	0	0	0	0	284
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- Interest on Opening Balance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- Interest on In-year Transactions (excl.int.)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
TOTAL REVENUE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
CLOSING CASH BALANCE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

2014 Adjusted Charge Per Capita	\$0.00
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Allocation of Capital Program	
Residential Sector	90%
Non-Residential Sector	10%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
DRUMBO SERVICE AREA - WASTEWATER
RESIDENTIAL DEVELOPMENT CHARGE

5.0 DRUMBO SERVICE AREA - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	\$106.9	(\$360.1)	(\$270.1)	(\$218.4)	(\$161.0)	(\$99.0)	(\$32.2)	\$0.4	\$0.4	\$0.4	\$0.4	\$0.5	\$0.5	\$0.5
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
DRUMBO SERVICE AREA - WASTEWATER - constant (\$000)	\$0.0	\$554.3	\$1.4	\$1.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
DRUMBO SERVICE AREA - WASTEWATER - current (\$000)	\$0.0	\$565.4	\$1.4	\$1.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
POPULATION GROWTH															
- Population in New Units	50	50	50	30	30	30	30	14	0	0	0	0	0	0	0
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$105.1	\$107.2	\$109.3	\$66.9	\$68.2	\$69.6	\$71.0	\$33.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- Interest on Opening Balance	\$0.0	\$3.7	(\$19.8)	(\$14.9)	(\$12.0)	(\$8.9)	(\$5.4)	(\$1.8)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- Interest on In-year Transactions (excl.int.)	\$1.8	(\$12.6)	\$1.9	\$1.1	\$1.2	\$1.2	\$1.2	\$0.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
TOTAL REVENUE	\$106.9	\$98.3	\$91.4	\$53.2	\$57.4	\$62.0	\$66.8	\$32.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
CLOSING CASH BALANCE	\$106.9	(\$360.1)	(\$270.1)	(\$218.4)	(\$161.0)	(\$99.0)	(\$32.2)	\$0.4	\$0.4	\$0.4	\$0.4	\$0.5	\$0.5	\$0.5	\$0.5

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	\$0.5	\$0.5	\$0.5	\$0.6	\$0.6	\$0.6	\$0.6	\$0.6	\$0.7	\$0.7	\$0.7	\$0.7	\$0.8	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
DRUMBO SERVICE AREA - WASTEWATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$557.0
DRUMBO SERVICE AREA - WASTEWATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$568.2
POPULATION GROWTH														
- Population in New Units	0	0	0	0	0	0	0	0	0	0	0	0	0	284
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$631.1
- Interest on Opening Balance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$58.6)
- Interest on In-year Transactions (excl.int.)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$3.5)
TOTAL REVENUE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$569.0
CLOSING CASH BALANCE	\$0.5	\$0.5	\$0.6	\$0.6	\$0.6	\$0.6	\$0.6	\$0.7	\$0.7	\$0.7	\$0.7	\$0.8	\$0.8	

2014 Adjusted Charge Per Capita	\$2,101
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Allocation of Capital Program	
Residential Sector	90%
Non-Residential Sector	10%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
DRUMBO SERVICE AREA - WATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

5.0 DRUMBO SERVICE AREA - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS															
DRUMBO SERVICE AREA - WATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
DRUMBO SERVICE AREA - WATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	425	425	425	255	255	255	255	119	0	0	0	0	0	0	0
	18%	18%	18%	11%	11%	11%	11%	5%	0%	0%	0%	0%	0%	0%	0%
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- Interest on Opening Balance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- Interest on In-year Transactions (excl.int.)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
TOTAL REVENUE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
CLOSING CASH BALANCE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS														\$0.0
DRUMBO SERVICE AREA - WATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
DRUMBO SERVICE AREA - WATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
NON-RESIDENTIAL GROWTH														2,414
- Growth in Sq. m	-	-	-	-	-	-	-	-	-	-	-	-	-	
REVENUE - current (\$000)														\$0.0
- Dev. Charge Receipts	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- Interest on Opening Balance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- Interest on In-year Transactions (excl.int.)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
TOTAL REVENUE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
CLOSING CASH BALANCE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

2014 Adjusted Charge Per Square Metre	\$0.00
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Allocation of Capital Program	
Residential Sector	90%
Non-Residential Sector	10%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
DRUMBO SERVICE AREA - WASTEWATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

5.0 DRUMBO SERVICE AREA - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	\$11.9	(\$40.0)	(\$30.0)	(\$24.3)	(\$17.9)	(\$11.1)	(\$3.7)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS															
DRUMBO SERVICE AREA - WASTEWATER - constant (\$000)	\$0.0	\$61.6	\$0.2	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
DRUMBO SERVICE AREA - WASTEWATER - current (\$000)	\$0.0	\$62.8	\$0.2	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	425	425	425	255	255	255	255	119	0	0	0	0	0	0	0
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$11.7	\$11.9	\$12.1	\$7.4	\$7.6	\$7.7	\$7.9	\$3.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- Interest on Opening Balance	\$0.0	\$0.4	(\$2.2)	(\$1.7)	(\$1.3)	(\$1.0)	(\$0.6)	(\$0.2)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- Interest on In-year Transactions (excl.int.)	\$0.2	(\$1.4)	\$0.2	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
TOTAL REVENUE	\$11.9	\$10.9	\$10.1	\$5.9	\$6.4	\$6.8	\$7.4	\$3.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
CLOSING CASH BALANCE	\$11.9	(\$40.0)	(\$30.0)	(\$24.3)	(\$17.9)	(\$11.1)	(\$3.7)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS														
DRUMBO SERVICE AREA - WASTEWATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$61.9
DRUMBO SERVICE AREA - WASTEWATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$63.1
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	-	-	-	-	-	-	-	-	-	-	-	-	-	2,414
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$70.1
- Interest on Opening Balance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$6.6)
- Interest on In-year Transactions (excl.int.)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.4)
TOTAL REVENUE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$63.1
CLOSING CASH BALANCE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

2014 Adjusted Charge Per Square Metre

\$27.45

Allocation of Capital Program	
Residential Sector	90%
Non-Residential Sector	10%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

APPENDIX I

WATER AND WASTEWATER AREA-SPECIFIC TECHNICAL APPENDIX TAVISTOCK

This appendix provides a brief outline of the County's water and wastewater infrastructure needs for the Tavistock service area. The development-related projects are required in order to maintain the servicing needs of new residential and non-residential development in the Tavistock service area.

The following sections set out the 2014 to 2041 (or build-out) development-related capital forecast and the calculation of the development charges. The cost, quantum and timing of the projects included in the forecast have been provided by the County's Public Works Department. Consistent with s.5.(1)7. of the DCA, there is no legislated percentage reduction in the eligible development-related capital cost for the provision of water and wastewater infrastructure. Tables 1–4 provide details of the projects included in the Tavistock service area development charges calculation; the content of the individual tables is as follows:

Table 1 Development-Related Water and Wastewater Capital Program

Table 2 Calculation of the Unadjusted Development Charges Rates

Table 3 Residential Cash Flow

Table 4 Non-Residential Cash Flow

The following is a summary of the calculated water and wastewater development charges rates for the Tavistock service area:

Residential	Adjusted Charge Per Capita	Charge By Unit Type ⁽¹⁾				Non-Residential Charge Per Square Metre
		Single & Semi-Detached	Rows & Other Multiples	Apartments		
				2 Bedrooms & Larger	Bachelor & 1 Bedroom	
Water	\$389.00	\$973	\$856	\$622	\$467	\$5.09
Wastewater	\$3,889.00	\$9,723	\$8,556	\$6,222	\$4,667	\$50.83
Total Water and Wastewater	\$4,278.00	\$10,696	\$9,412	\$6,844	\$5,134	\$55.92

(1) Based on Persons Per Unit Of:

2.50

2.20

1.60

1.20

APPENDIX I
TABLE 1COUNTY OF OXFORD
2014 DEVELOPMENT CHARGE STUDY
DEVELOPMENT-RELATED WATER & WASTEWATER CAPITAL PROGRAM
TAVISTOCK SERVICE AREA

TAVISTOCK Attributed to Development 2014 to Build Out (2041)	Timing (year)	Capital Cost (Estimate)	Recoveries		Net Capital Cost	Benefit to Existing & Local Share ²		Prior Growth ³	Available DC Reserves ³	Total Growth-Related	Notes
			Grants/Subs	Other		%	\$				
Water											
Recovery of Completed Projects											
n/a Jacob to William Watermain	pre 2014	\$ 136,887	\$ -	\$ -	\$ 136,887	75.0%	\$ 102,670	\$ 31,250	\$ 2,967	\$ -	5
New Projects											
n/a Well 4 - Study	2017	\$ 100,000	\$ -	\$ -	\$ 100,000	25.0%	\$ 25,000	\$ -	\$ 75,000	\$ -	6
n/a Well 4 - Construction	2018	\$ 250,000	\$ -	\$ -	\$ 250,000	25.0%	\$ 62,500	\$ -	\$ 125,000	\$ 62,500	
n/a Well 4 - Construction	2019	\$ 750,000	\$ -	\$ -	\$ 750,000	25.0%	\$ 187,500	\$ -	\$ 183,816	\$ 378,684	
Water Model and Related Studies (\$50,000/yr)	2014 - 2041	\$ 500,000	\$ -	\$ 477,000	\$ 23,000	0.0%	\$ -	\$ -	\$ -	\$ 23,000	
Total Water		\$ 1,736,887	\$ -	\$ 477,000	\$ 1,259,887		\$ 377,670	\$ 31,250	\$ 386,783	\$ 464,184	
Wastewater Collection System											
Recovery of Completed Projects											
n/a Sewage Pump Station No. 3 and Collection System Upgrade	Pre 2014	\$ 1,046,500	\$ -	\$ 200,000	\$ 846,500	75.0%	\$ 634,875	\$ -	\$ 90,435	\$ 121,190	5
Sub-Total Wastewater Collection System		\$ 1,046,500	\$ -	\$ 200,000	\$ 846,500		\$ 634,875	\$ -	\$ 90,435	\$ 121,190	
Wastewater Treatment											
n/a WWTP Expansion/Upgrade	Pre 2014	\$ 3,329,684	\$ -	\$ -	\$ 3,329,684	40.0%	\$ 1,331,874	\$ 574,672	\$ -	\$ 1,423,138	
n/a Debt Recovery - Lagoon	2014	\$ 331,402	\$ -	\$ -	\$ 331,402	40.0%	\$ 132,561	\$ -	\$ -	\$ 198,841	
n/a Debt Recovery - Lagoon	2014 - 2026	\$ 2,843,598	\$ -	\$ -	\$ 2,843,598	40.0%	\$ 1,137,439	\$ -	\$ -	\$ 1,706,159	
n/a Debt Recovery - WWTP	2014 - 2033	\$ 645,000	\$ -	\$ -	\$ 645,000	40.0%	\$ 258,000	\$ -	\$ -	\$ 387,000	
Sub-Total Wastewater Treatment		\$ 7,149,684	\$ -	\$ -	\$ 7,149,684		\$ 2,859,874	\$ 574,672	\$ -	\$ 3,715,138	
Total Wastewater		\$ 8,196,184	\$ -	\$ 200,000	\$ 7,996,184		\$ 3,494,749	\$ 574,672	\$ 90,435	\$ 3,836,328	

- Notes:
- 1) Source: County of Oxford staff based on current estimates, past project costing, and any available servicing studies.
 - 2) Benefit to existing shares based on consideration of a variety of factors
 - 3) Prior growth and Available DC Reserves is the share of projects funded from existing or committed development charge reserve fund balances.
 - 4) No Post Period Benefit share is identified as projects are designed to service full build-out.
 - 5) Benefit to existing shares consistent with 2009 DC Study.
 - 6) These costs are shared against growth in all the service area. Allocation based on share of population in new housing unit growth over 2014-2041. Amount shown under Recover "Other" is portion being recovered from other service development charge calculations.

APPENDIX I
TABLE 2

COUNTY OF OXFORD
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
WATER AND WASTEWATER SERVICING - TAVISTOCK

Growth 2014-2041

Population in New Units	1,180
Employment Growth	118
Ultimate Growth in Square Meters	10,030

Tavistock	Development-Related Capital Forecast ¹									
	Gross Cost	Grants and Subsidies	Prior Growth (and Existing Reserve Fund)	Benefit to Existing Share	Post Period Benefit (Calculated Oversizing)	Total DC Eligible Costs for Recovery	Residential Share	Non-Residential Share		
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	%	\$000	%	\$000
Water										
Development-Related Capital Projects - Water	\$1,736.9	\$477.0	\$418.0	\$377.7	\$0.0	\$464.2	90%	\$417.8	10%	\$46.4
Unadjusted Development Charge Per Capita (\$)								\$ 354.04		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 4.63
Wastewater										
Development-Related Capital Projects - Wastewater	\$8,196.2	\$200.0	\$665.1	\$3,494.7	\$0.0	\$3,836.3	90%	\$3,452.7	10%	\$383.6
Unadjusted Development Charge Per Capita (\$)								\$ 2,926.01		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 38.25

Notes:

1) No legislated service discounts for water and wastewater projects.

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
TAVISTOCK SERVICE AREA - WATER
RESIDENTIAL DEVELOPMENT CHARGE

6.0 TAVISTOCK SERVICE AREA - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	\$26.9	\$63.4	\$101.9	\$138.2	\$114.3	(\$233.8)	(\$216.3)	(\$197.2)	(\$181.1)	(\$163.6)	(\$144.5)	(\$123.9)	(\$101.5)	(\$82.5)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
TAVISTOCK SERVICE AREA - WATER - constant (\$000)	\$0.7	\$0.7	\$0.7	\$0.7	\$57.0	\$341.6	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7
TAVISTOCK SERVICE AREA - WATER - current (\$000)	\$0.7	\$0.8	\$0.8	\$0.8	\$61.7	\$377.1	\$0.8	\$0.8	\$0.9	\$0.9	\$0.9	\$0.9	\$0.9	\$1.0	\$1.0
POPULATION GROWTH															
- Population in New Units	70	90	90	80	80	80	70	70	60	60	60	60	60	50	50
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$27.2	\$35.7	\$36.4	\$33.0	\$33.7	\$34.4	\$30.7	\$31.3	\$27.3	\$27.9	\$28.5	\$29.0	\$29.6	\$25.2	\$25.7
- Interest on Opening Balance	\$0.0	\$0.9	\$2.2	\$3.6	\$4.8	\$4.0	(\$12.9)	(\$11.9)	(\$10.8)	(\$10.0)	(\$9.0)	(\$7.9)	(\$6.8)	(\$5.6)	(\$4.5)
- Interest on In-year Transactions (excl.int.)	\$0.5	\$0.6	\$0.6	\$0.6	(\$0.8)	(\$9.4)	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.4	\$0.4
TOTAL REVENUE	\$27.7	\$37.3	\$39.2	\$37.1	\$37.8	\$29.0	\$18.4	\$19.9	\$16.9	\$18.4	\$20.0	\$21.5	\$23.3	\$20.0	\$21.6
CLOSING CASH BALANCE	\$26.9	\$63.4	\$101.9	\$138.2	\$114.3	(\$233.8)	(\$216.3)	(\$197.2)	(\$181.1)	(\$163.6)	(\$144.5)	(\$123.9)	(\$101.5)	(\$82.5)	(\$61.8)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$61.8)	(\$39.6)	(\$15.6)	\$10.1	\$9.4	\$8.6	\$7.8	\$6.9	\$6.0	\$5.0	\$3.9	\$2.8	\$1.7	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
TAVISTOCK SERVICE AREA - WATER - constant (\$000)	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$417.8
TAVISTOCK SERVICE AREA - WATER - current (\$000)	\$1.0	\$1.0	\$1.0	\$1.1	\$1.1	\$1.1	\$1.1	\$1.1	\$1.2	\$1.2	\$1.2	\$1.2	\$1.3	\$464.6
POPULATION GROWTH														
- Population in New Units	50	50	50	0	0	0	0	0	0	0	0	0	0	1,180
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$26.2	\$26.7	\$27.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$535.7
- Interest on Opening Balance	(\$3.4)	(\$2.2)	(\$0.9)	\$0.4	\$0.3	\$0.3	\$0.3	\$0.2	\$0.2	\$0.2	\$0.1	\$0.1	\$0.1	(\$68.1)
- Interest on In-year Transactions (excl.int.)	\$0.4	\$0.4	\$0.5	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$2.6)
TOTAL REVENUE	\$23.2	\$25.0	\$26.8	\$0.3	\$0.3	\$0.3	\$0.2	\$0.2	\$0.2	\$0.1	\$0.1	\$0.1	\$0.0	\$465.0
CLOSING CASH BALANCE	(\$39.6)	(\$15.6)	\$10.1	\$9.4	\$8.6	\$7.8	\$6.9	\$6.0	\$5.0	\$3.9	\$2.8	\$1.7	\$0.4	

2014 Adjusted Charge Per Capita	\$389.00
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Allocation of Capital Program	
Residential Sector	90%
Non-Residential Sector	10%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
TAVISTOCK SERVICE AREA - WASTEWATER
RESIDENTIAL DEVELOPMENT CHARGE

6.0 TAVISTOCK SERVICE AREA - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$1,656.3)	(\$1,583.9)	(\$1,499.0)	(\$1,442.9)	(\$1,375.8)	(\$1,296.7)	(\$1,249.4)	(\$1,191.9)	(\$1,169.5)	(\$1,138.6)	(\$1,098.6)	(\$1,048.6)	(\$988.1)	(\$811.7)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
TAVISTOCK SERVICE AREA - WASTEWATER - constant (\$000)	\$1,704.4	\$135.5	\$135.5	\$135.5	\$135.5	\$135.5	\$135.5	\$135.5	\$135.5	\$135.5	\$135.5	\$135.5	\$135.5	\$17.4	\$17.4
TAVISTOCK SERVICE AREA - WASTEWATER - current (\$000)	\$1,704.4	\$138.2	\$141.0	\$143.8	\$146.7	\$149.6	\$152.6	\$155.7	\$158.8	\$162.0	\$165.2	\$168.5	\$171.9	\$22.5	\$23.0
POPULATION GROWTH															
- Population in New Units	70	90	90	80	80	80	70	70	60	60	60	60	60	50	50
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$272.2	\$357.0	\$364.2	\$330.2	\$336.8	\$343.5	\$306.6	\$312.7	\$273.4	\$278.9	\$284.4	\$290.1	\$295.9	\$251.5	\$256.6
- Interest on Opening Balance	\$0.0	(\$91.1)	(\$87.1)	(\$82.4)	(\$79.4)	(\$75.7)	(\$71.3)	(\$68.7)	(\$65.6)	(\$64.3)	(\$62.6)	(\$60.4)	(\$57.7)	(\$54.3)	(\$44.6)
- Interest on In-year Transactions (excl.int.)	(\$39.4)	\$3.8	\$3.9	\$3.3	\$3.3	\$3.4	\$2.7	\$2.7	\$2.0	\$2.0	\$2.1	\$2.1	\$2.2	\$4.0	\$4.1
- Interest Payments Lagoon Upgrades	(\$178.0)	(\$52.6)	(\$49.0)	(\$45.3)	(\$41.5)	(\$37.5)	(\$33.4)	(\$29.1)	(\$24.7)	(\$20.1)	(\$15.3)	(\$10.4)	(\$5.3)	\$0.0	\$0.0
- Interest Payments WWTP	(\$6.7)	(\$6.4)	(\$6.1)	(\$5.8)	(\$5.4)	(\$5.0)	(\$4.7)	(\$4.3)	(\$4.0)	(\$3.7)	(\$3.3)	(\$2.9)	(\$2.6)	(\$2.3)	(\$1.9)
TOTAL REVENUE	\$48.1	\$210.7	\$225.9	\$199.9	\$213.9	\$228.7	\$199.9	\$213.3	\$181.2	\$192.8	\$205.3	\$218.5	\$232.5	\$198.9	\$214.1
CLOSING CASH BALANCE	(\$1,656.3)	(\$1,583.9)	(\$1,499.0)	(\$1,442.9)	(\$1,375.8)	(\$1,296.7)	(\$1,249.4)	(\$1,191.9)	(\$1,169.5)	(\$1,138.6)	(\$1,098.6)	(\$1,048.6)	(\$988.1)	(\$811.7)	(\$620.5)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$620.5)	(\$413.8)	(\$190.5)	\$50.4	\$26.1	\$0.7	\$0.8	\$0.8	\$0.8	\$0.8	\$0.9	\$0.9	\$0.9	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
TAVISTOCK SERVICE AREA - WASTEWATER - constant (\$000)	\$17.4	\$17.4	\$17.4	\$17.4	\$17.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,452.7
TAVISTOCK SERVICE AREA - WASTEWATER - current (\$000)	\$23.4	\$23.9	\$24.4	\$24.9	\$25.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,726.0
POPULATION GROWTH														
- Population in New Units	50	50	50	0	0	0	0	0	0	0	0	0	0	1,180
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$261.7	\$266.9	\$272.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,354.9
- Interest on Opening Balance	(\$34.1)	(\$22.8)	(\$10.5)	\$1.8	\$0.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$1,029.8)
- Interest on In-year Transactions (excl.int.)	\$4.2	\$4.3	\$4.3	(\$0.7)	(\$0.7)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$13.7
- Interest Payments Lagoon Upgrades														
- Interest Payments WWTP														
TOTAL REVENUE	\$230.2	\$247.2	\$265.3	\$0.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
CLOSING CASH BALANCE	(\$413.8)	(\$190.5)	\$50.4	\$26.1	\$0.7	\$0.8	\$0.8	\$0.8	\$0.8	\$0.9	\$0.9	\$0.9	\$1.0	

2014 Adjusted Charge Per Capita	\$3,889.00
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Allocation of Capital Program	
Residential Sector	90%
Non-Residential Sector	10%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
TAVISTOCK SERVICE AREA - WATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

6.0 TAVISTOCK SERVICE AREA - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	\$3.0	\$7.1	\$11.4	\$15.5	\$12.8	(\$25.9)	(\$24.0)	(\$21.9)	(\$20.1)	(\$18.2)	(\$16.0)	(\$13.7)	(\$11.2)	(\$9.1)
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS															
TAVISTOCK SERVICE AREA - WATER - constant (\$000)	\$0.1	\$0.1	\$0.1	\$0.1	\$6.3	\$38.0	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1
TAVISTOCK SERVICE AREA - WATER - current (\$000)	\$0.1	\$0.1	\$0.1	\$0.1	\$6.9	\$41.9	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	595	765	765	680	680	680	595	595	510	510	510	510	510	425	425
	6%	8%	8%	7%	7%	7%	6%	6%	5%	5%	5%	5%	5%	4%	4%
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$3.0	\$4.0	\$4.1	\$3.7	\$3.7	\$3.8	\$3.4	\$3.5	\$3.0	\$3.1	\$3.2	\$3.2	\$3.3	\$2.8	\$2.9
- Interest on Opening Balance	\$0.0	\$0.1	\$0.2	\$0.4	\$0.5	\$0.4	(\$1.4)	(\$1.3)	(\$1.2)	(\$1.1)	(\$1.0)	(\$0.9)	(\$0.8)	(\$0.6)	(\$0.5)
- Interest on In-year Transactions (excl.int.)	\$0.1	\$0.1	\$0.1	\$0.1	(\$0.1)	(\$1.0)	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0
TOTAL REVENUE	\$3.1	\$4.2	\$4.4	\$4.2	\$4.2	\$3.2	\$2.0	\$2.2	\$1.8	\$2.0	\$2.3	\$2.4	\$2.6	\$2.2	\$2.4
CLOSING CASH BALANCE	\$3.0	\$7.1	\$11.4	\$15.5	\$12.8	(\$25.9)	(\$24.0)	(\$21.9)	(\$20.1)	(\$18.2)	(\$16.0)	(\$13.7)	(\$11.2)	(\$9.1)	(\$6.8)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$6.8)	(\$4.3)	(\$1.6)	\$1.3	\$1.2	\$1.1	\$1.0	\$0.9	\$0.8	\$0.7	\$0.6	\$0.5	\$0.4	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS														
TAVISTOCK SERVICE AREA - WATER - constant (\$000)	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$46.4
TAVISTOCK SERVICE AREA - WATER - current (\$000)	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$51.6
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	425	425	425	-	-	-	-	-	-	-	-	-	-	10,030
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$2.9	\$3.0	\$3.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$59.6
- Interest on Opening Balance	(\$0.4)	(\$0.2)	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$7.5)
- Interest on In-year Transactions (excl.int.)	\$0.0	\$0.1	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.3)
TOTAL REVENUE	\$2.6	\$2.8	\$3.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$51.8
CLOSING CASH BALANCE	(\$4.3)	(\$1.6)	\$1.3	\$1.2	\$1.1	\$1.0	\$0.9	\$0.8	\$0.7	\$0.6	\$0.5	\$0.4	\$0.2	

2014 Adjusted Charge Per Square Metre

\$5.09

Allocation of Capital Program

Residential Sector 90%

Non-Residential Sector 10%

Rates for 2014

Inflation Rate 2.0%

Inflation Rate on Positive Balances 3.5%

Inflation Rate on Negative Balances 5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
TAVISTOCK SERVICE AREA - WASTEWATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

6.0 TAVISTOCK SERVICE AREA - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$184.1)	(\$176.0)	(\$166.5)	(\$160.3)	(\$152.9)	(\$144.0)	(\$138.7)	(\$132.4)	(\$129.9)	(\$126.4)	(\$122.0)	(\$116.5)	(\$109.7)	(\$90.1)
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS															
TAVISTOCK SERVICE AREA - WASTEWATER - constant (\$000)	\$189.4	\$15.1	\$15.1	\$15.1	\$15.1	\$15.1	\$15.1	\$15.1	\$15.1	\$15.1	\$15.1	\$15.1	\$15.1	\$1.9	\$1.9
TAVISTOCK SERVICE AREA - WASTEWATER - current (\$000)	\$189.4	\$15.4	\$15.7	\$16.0	\$16.3	\$16.6	\$17.0	\$17.3	\$17.6	\$18.0	\$18.4	\$18.7	\$19.1	\$2.5	\$2.6
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	595	765	765	680	680	680	595	595	510	510	510	510	510	425	425
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$30.2	\$39.7	\$40.5	\$36.7	\$37.4	\$38.2	\$34.1	\$34.7	\$30.4	\$31.0	\$31.6	\$32.2	\$32.9	\$27.9	\$28.5
- Interest on Opening Balance	\$0.0	(\$10.1)	(\$9.7)	(\$9.2)	(\$8.8)	(\$8.4)	(\$7.9)	(\$7.6)	(\$7.3)	(\$7.1)	(\$7.0)	(\$6.7)	(\$6.4)	(\$6.0)	(\$5.0)
- Interest on In-year Transactions (excl.int.)	(\$4.4)	\$0.4	\$0.4	\$0.4	\$0.4	\$0.4	\$0.3	\$0.3	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.4	\$0.5
- Interest Payments Lagoon Upgrades	(\$19.8)	(\$5.8)	(\$5.4)	(\$5.0)	(\$4.6)	(\$4.2)	(\$3.7)	(\$3.2)	(\$2.7)	(\$2.2)	(\$1.7)	(\$1.2)	(\$0.6)	\$0.0	\$0.0
- Interest Payments WWTP	(\$0.7)	(\$0.7)	(\$0.7)	(\$0.6)	(\$0.6)	(\$0.6)	(\$0.5)	(\$0.5)	(\$0.4)	(\$0.4)	(\$0.4)	(\$0.3)	(\$0.3)	(\$0.3)	(\$0.2)
TOTAL REVENUE	\$5.3	\$23.4	\$25.1	\$22.2	\$23.7	\$25.4	\$22.2	\$23.7	\$20.2	\$21.4	\$22.8	\$24.2	\$25.9	\$22.1	\$23.8
CLOSING CASH BALANCE	(\$184.1)	(\$176.0)	(\$166.5)	(\$160.3)	(\$152.9)	(\$144.0)	(\$138.7)	(\$132.4)	(\$129.9)	(\$126.4)	(\$122.0)	(\$116.5)	(\$109.7)	(\$90.1)	(\$68.9)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$68.9)	(\$45.9)	(\$21.1)	\$5.7	\$3.0	\$0.1	\$0.1	\$0.1	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS														
TAVISTOCK SERVICE AREA - WASTEWATER - constant (\$000)	\$1.9	\$1.9	\$1.9	\$1.9	\$1.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$383.6
TAVISTOCK SERVICE AREA - WASTEWATER - current (\$000)	\$2.6	\$2.7	\$2.7	\$2.8	\$2.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$414.0
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	425	425	425	-	-	-	-	-	-	-	-	-	-	10,030
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$29.1	\$29.7	\$30.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$595.0
- Interest on Opening Balance	(\$3.8)	(\$2.5)	(\$1.2)	\$0.2	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$114.4)
- Interest on In-year Transactions (excl.int.)	\$0.5	\$0.5	\$0.5	(\$0.1)	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.5
TOTAL REVENUE	\$25.6	\$27.5	\$29.4	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
CLOSING CASH BALANCE	(\$45.9)	(\$21.1)	\$5.7	\$3.0	\$0.1	\$0.1	\$0.1	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	

2014 Adjusted Charge Per Square Metre

\$50.83

Allocation of Capital Program

Residential Sector 90%

Non-Residential Sector 10%

Rates for 2014

Inflation Rate 2.0%

Inflation Rate on Positive Balances 3.5%

Inflation Rate on Negative Balances 5.5%

APPENDIX J

WATER AND WASTEWATER AREA-SPECIFIC TECHNICAL APPENDIX NORWICH

This appendix provides a brief outline of the County's water and wastewater infrastructure needs for the Norwich service area. The development-related projects are required in order to maintain the servicing needs of new residential and non-residential development in the Norwich service area.

The following sections set out the 2014 to 2041 development-related capital forecast and the calculation of the development charges. The cost, quantum and timing of the projects included in the forecast have been provided by the County's Public Works Department. Consistent with s.5.(1)7. of the DCA, there is no legislated percentage reduction in the eligible development-related capital cost for the provision of water and wastewater infrastructure. Tables 1–4 provide details of the projects included in the Norwich service area development charges calculation; the content of the individual tables is as follows:

Table 1 Development-Related Water and Wastewater Capital Program

Table 2 Calculation of the Unadjusted Development Charges Rates

Table 3 Residential Cash Flow

Table 4 Non-Residential Cash Flow

The following is a summary of the calculated water and wastewater development charges rates for the Norwich service area:

Residential	Adjusted Charge Per Capita	Charge By Unit Type ⁽¹⁾				Non-Residential Charge Per Square Metre
		Single & Semi-Detached	Rows & Other Multiples	Apartments		
				2 Bedrooms & Larger	Bachelor & 1 Bedroom	
Water	\$736.00	\$2,229	\$1,619	\$1,178	\$883	\$9.62
Wastewater	\$2,696.00	\$8,164	\$5,931	\$4,314	\$3,235	\$35.25
Total Water and Wastewater	\$3,432.00	\$10,393	\$7,550	\$5,492	\$4,118	\$44.87

(1) Based on Persons Per Unit Of:

3.03

2.20

1.60

1.20

COUNTY OF OXFORD
2009 DEVELOPMENT CHARGE STUDY
GROWTH-RELATED WATER & WASTEWATER CAPITAL PROGRAM
NORWICH SERVICE AREA

NORWICH Attributed to Development 2014 to 2041	Timing (year)	Capital Cost (Estimate)	Recoveries		Net Capital Cost	Benefit to Existing & Local Share ²		Prior Growth ³	Available DC Reserves	Total Growth-Related	Post 2041 ⁴	Notes
			Grants/Subs	Other		%	\$					
Water												
Recovery of Completed Projects												
n/a Well # 4	Pre 2014	\$ 577,000	\$ -	\$ -	\$ 577,000	75.0%	\$ 432,750	\$ -	\$ 144,250	\$ -	\$ -	5
n/a South Street Watermain	Pre 2014	\$ 25,000	\$ -	\$ -	\$ 25,000	20.0%	\$ 5,000	\$ -	\$ 20,000	\$ -	\$ -	5
n/a South Servicing Watermain	Pre 2014	\$ 335,000	\$ -	\$ -	\$ 335,000	20.0%	\$ 67,000	\$ -	\$ 135,026	\$ 132,974	\$ -	5
New Projects												
n/a Phase 1 Transmission Main	2014	\$ 1,944,366	\$ -	\$ 939,655	\$ 1,004,711	50.0%	\$ 502,355	\$ -	\$ -	\$ 502,356	\$ -	
n/a Phase 2 Transmission Main	2025 - 2031	\$ 2,000,000	\$ -	\$ 966,541	\$ 1,033,459	25.0%	\$ 258,365	\$ -	\$ -	\$ 775,094	\$ -	
Water Model and Related Studies (\$50,000/yr)	2014 - 2041	\$ 500,000	\$ -	\$ 460,000	\$ 40,000	0.0%	\$ -	\$ -	\$ -	\$ 40,000	\$ -	6
Total Water		\$ 5,381,366	\$ -	\$ 2,366,196	\$ 3,015,170		\$ 1,265,470	\$ -	\$ 299,276	\$ 1,450,423	\$ -	
Wastewater												
Wastewater Collection System												
Recovery of Completed Projects												
n/a South Servicing inc. Dufferin Street Pump Station	Pre 2014	\$ 1,328,794	\$ -	\$ -	\$ 1,328,794	80.0%	\$ 1,063,035	\$ 183,000	\$ 82,759	\$ -	\$ -	5
n/a Sutton Street Pump Station expansion	Pre 2014	\$ 155,000	\$ -	\$ -	\$ 155,000	0.0%	\$ -	\$ -	\$ 155,000	\$ -	\$ -	
Sub-Total Wastewater Collection System		\$ 1,483,794	\$ -	\$ -	\$ 1,483,794		\$ 1,063,035	\$ 183,000	\$ 237,759	\$ -	\$ -	
Wastewater Treatment												
New Projects												
950408 WWTP Expans Class EA (remaining share)	2014	\$ 37,000	\$ -	\$ -	\$ 37,000	0.0%	\$ -	\$ -	\$ 37,000	\$ -	\$ -	
950408 WWTP Expans Class EA	2018	\$ 700,000	\$ -	\$ -	\$ 700,000	0.0%	\$ -	\$ -	\$ 563,261	\$ 95,717	\$ 41,022	
950408 WWTP Expans Class - Construction	2019	\$ 4,000,000	\$ -	\$ -	\$ 4,000,000	0.0%	\$ -	\$ -	\$ -	\$ 2,800,000	\$ 1,200,000	
950408 WWTP Expans Class - Construction	2020	\$ 3,000,000	\$ -	\$ -	\$ 3,000,000	0.0%	\$ -	\$ -	\$ -	\$ 2,100,000	\$ 900,000	
Sub-Total Wastewater Treatment		\$ 7,737,000	\$ -	\$ -	\$ 7,737,000		\$ -	\$ -	\$ 600,261	\$ 4,995,717	\$ 2,141,022	
Total Wastewater		\$ 9,220,794	\$ -	\$ -	\$ 9,220,794		\$ 1,063,035	\$ 183,000	\$ 838,020	\$ 4,995,717	\$ 2,141,022	

Notes:

- 1) Source: County of Oxford staff based on current estimates, past project costing, and any available servicing studies.
- 2) Benefit to existing shares based on consideration of a variety of factors
- 3) Prior growth and Available DC Reserves is the share of projects funded from existing or committed development charge reserve fund balances.
- 4) Post Period Benefit shares are identified as the project is designed to service growth beyond 2041
- 5) Benefit to existing shares consistent with 2009 DC Study.
- 6) These costs are shared against growth in all the service area. Allocation based on share of population in new housing unit growth over 2014-2041. Amount shown under Recover "Other" is portion being recovered from other service development charge calculations.
- 7) These project are deemed to service existing population and growth. The benefit to existing share is based on shares of existing population and population in new units (2014-2041) County-wide.

APPENDIX J
TABLE 2

COUNTY OF OXFORD
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
WATER AND WASTEWATER SERVICING - NORWICH

Growth 2014-2041

Population in New Units	2,067
Employment Growth	207
Ultimate Growth in Square Meters	17,570

Norwich	Development-Related Capital Forecast ¹									
	Gross Cost	Grants and Subsidies	Prior Growth (and Existing Reserve Fund)	Benefit to Existing Share	Post Period Benefit (Calculated Oversizing) ²	Total DC Eligible Costs for Recovery	Residential Share	Non-Residential Share		
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	%	\$000	%	\$000
Water										
Development-Related Capital Projects - Water	\$5,381.4	\$2,366.2	\$299.3	\$1,265.5	\$0.0	\$1,450.4	90%	\$1,305.4	10%	\$145.0
Unadjusted Development Charge Per Capita (\$)								\$ 631.53		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 8.26
Wastewater										
Development-Related Capital Projects - Wastewater	\$9,220.8	\$0.0	\$1,021.0	\$1,063.0	\$2,141.0	\$4,995.7	90%	\$4,496.1	10%	\$499.6
Unadjusted Development Charge Per Capita (\$)								\$ 2,175.20		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 28.43

Notes:

- 1) No legislated service discounts for water and wastewater projects.
- 2) Works anticipated to benefit development beyond 2041

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
NORWICH SERVICE AREA - WATER
RESIDENTIAL DEVELOPMENT CHARGE

7.0 NORWICH SERVICE AREA - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$558.6)	(\$560.2)	(\$553.4)	(\$545.4)	(\$536.3)	(\$501.1)	(\$428.9)	(\$325.0)	(\$212.7)	(\$91.8)	\$38.5	\$23.7	(\$30.2)	(\$87.8)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
NORWICH SERVICE AREA - WATER - constant (\$000)	\$573.1	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$100.9	\$100.9	\$100.9	\$100.9
NORWICH SERVICE AREA - WATER - current (\$000)	\$573.1	\$1.3	\$1.3	\$1.4	\$1.4	\$1.4	\$1.4	\$1.5	\$1.5	\$1.5	\$1.6	\$125.5	\$128.0	\$130.6	\$133.2
POPULATION GROWTH															
- Population in New Units	40	40	50	50	50	80	120	150	150	150	150	120	80	80	80
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$29.4	\$30.0	\$38.3	\$39.1	\$39.8	\$65.0	\$99.5	\$126.8	\$129.4	\$131.9	\$134.6	\$109.8	\$74.7	\$76.2	\$77.7
- Interest on Opening Balance	\$0.0	(\$30.7)	(\$30.8)	(\$30.4)	(\$30.0)	(\$29.5)	(\$27.6)	(\$23.6)	(\$17.9)	(\$11.7)	(\$5.0)	\$1.3	\$0.8	(\$1.7)	(\$4.8)
- Interest on In-year Transactions (excl.int.)	(\$15.0)	\$0.5	\$0.6	\$0.7	\$0.7	\$1.1	\$1.7	\$2.2	\$2.2	\$2.3	\$2.3	(\$0.4)	(\$1.5)	(\$1.5)	(\$1.5)
TOTAL REVENUE	\$14.4	(\$0.2)	\$8.1	\$9.3	\$10.5	\$36.6	\$73.7	\$105.4	\$113.8	\$122.5	\$131.9	\$110.7	\$74.1	\$73.0	\$71.3
CLOSING CASH BALANCE	(\$558.6)	(\$560.2)	(\$553.4)	(\$545.4)	(\$536.3)	(\$501.1)	(\$428.9)	(\$325.0)	(\$212.7)	(\$91.8)	\$38.5	\$23.7	(\$30.2)	(\$87.8)	(\$149.6)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$149.6)	(\$226.2)	(\$308.4)	(\$396.5)	(\$361.4)	(\$323.1)	(\$281.6)	(\$242.3)	(\$199.7)	(\$163.2)	(\$126.1)	(\$86.0)	(\$42.8)	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
NORWICH SERVICE AREA - WATER - constant (\$000)	\$100.9	\$100.9	\$100.9	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1.3	\$1,305.4
NORWICH SERVICE AREA - WATER - current (\$000)	\$135.9	\$138.6	\$141.3	\$1.8	\$1.9	\$1.9	\$1.9	\$2.0	\$2.0	\$2.1	\$2.1	\$2.2	\$2.2	\$1,540.6
POPULATION GROWTH														
- Population in New Units	70	70	70	55	55	55	50	50	42	40	40	40	40	2,067
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$69.3	\$70.7	\$72.1	\$57.8	\$59.0	\$60.2	\$55.8	\$56.9	\$48.7	\$47.4	\$48.3	\$49.3	\$50.3	\$1,948.0
- Interest on Opening Balance	(\$8.2)	(\$12.4)	(\$17.0)	(\$21.8)	(\$19.9)	(\$17.8)	(\$15.5)	(\$13.3)	(\$11.0)	(\$9.0)	(\$6.9)	(\$4.7)	(\$2.4)	(\$401.4)
- Interest on In-year Transactions (excl.int.)	(\$1.8)	(\$1.9)	(\$1.9)	\$1.0	\$1.0	\$1.0	\$0.9	\$1.0	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	(\$2.1)
TOTAL REVENUE	\$59.2	\$56.4	\$53.2	\$37.0	\$40.1	\$43.4	\$41.3	\$44.5	\$38.5	\$39.2	\$42.2	\$45.4	\$48.8	\$1,544.4
CLOSING CASH BALANCE	(\$226.2)	(\$308.4)	(\$396.5)	(\$361.4)	(\$323.1)	(\$281.6)	(\$242.3)	(\$199.7)	(\$163.2)	(\$126.1)	(\$86.0)	(\$42.8)	\$3.8	

2014 Adjusted Charge Per Capita	\$736.00
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Allocation of Capital Program	
Residential Sector	90%
Non-Residential Sector	10%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
NORWICH SERVICE AREA - WASTEWATER
RESIDENTIAL DEVELOPMENT CHARGE

7.0 NORWICH SERVICE AREA - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	\$109.7	\$225.5	\$376.0	\$534.8	\$607.1	(\$1,985.9)	(\$3,907.7)	(\$3,650.0)	(\$3,368.7)	(\$3,062.2)	(\$2,729.0)	(\$2,469.8)	(\$2,327.3)	(\$2,171.4)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
NORWICH SERVICE AREA - WASTEWATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$86.1	\$2,520.0	\$1,890.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
NORWICH SERVICE AREA - WASTEWATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$93.2	\$2,782.3	\$2,128.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
POPULATION GROWTH															
- Population in New Units	40	40	50	50	50	80	120	150	150	150	150	120	80	80	80
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$107.8	\$110.0	\$140.2	\$143.1	\$145.9	\$238.1	\$364.3	\$464.5	\$473.8	\$483.3	\$493.0	\$402.3	\$273.5	\$279.0	\$284.6
- Interest on Opening Balance	\$0.0	\$3.8	\$7.9	\$13.2	\$18.7	\$21.2	(\$109.2)	(\$214.9)	(\$200.8)	(\$185.3)	(\$168.4)	(\$150.1)	(\$135.8)	(\$128.0)	(\$119.4)
- Interest on In-year Transactions (excl.int.)	\$1.9	\$1.9	\$2.5	\$2.5	\$0.9	(\$70.0)	(\$48.5)	\$8.1	\$8.3	\$8.5	\$8.6	\$7.0	\$4.8	\$4.9	\$5.0
TOTAL REVENUE	\$109.7	\$115.8	\$150.5	\$158.8	\$165.5	\$189.4	\$206.6	\$257.7	\$281.3	\$306.5	\$333.2	\$259.2	\$142.4	\$155.9	\$170.2
CLOSING CASH BALANCE	\$109.7	\$225.5	\$376.0	\$534.8	\$607.1	(\$1,985.9)	(\$3,907.7)	(\$3,650.0)	(\$3,368.7)	(\$3,062.2)	(\$2,729.0)	(\$2,469.8)	(\$2,327.3)	(\$2,171.4)	(\$2,001.3)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$2,001.3)	(\$1,852.9)	(\$1,691.2)	(\$1,515.3)	(\$1,383.1)	(\$1,239.4)	(\$1,083.4)	(\$935.1)	(\$774.5)	(\$635.4)	(\$493.8)	(\$340.9)	(\$176.0)	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
NORWICH SERVICE AREA - WASTEWATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$4,496.1
NORWICH SERVICE AREA - WASTEWATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,004.0
POPULATION GROWTH														
- Population in New Units	70	70	70	55	55	55	50	50	42	40	40	40	40	2,067
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$254.0	\$259.1	\$264.3	\$211.8	\$216.0	\$220.3	\$204.3	\$208.4	\$178.6	\$173.5	\$176.9	\$180.5	\$184.1	\$7,135.2
- Interest on Opening Balance	(\$110.1)	(\$101.9)	(\$93.0)	(\$83.3)	(\$76.1)	(\$68.2)	(\$59.6)	(\$51.4)	(\$42.6)	(\$34.9)	(\$27.2)	(\$18.8)	(\$9.7)	(\$2,123.8)
- Interest on In-year Transactions (excl.int.)	\$4.4	\$4.5	\$4.6	\$3.7	\$3.8	\$3.9	\$3.6	\$3.6	\$3.1	\$3.0	\$3.1	\$3.2	\$3.2	(\$5.8)
TOTAL REVENUE	\$148.4	\$161.7	\$175.9	\$132.2	\$143.7	\$156.0	\$148.3	\$160.6	\$139.1	\$141.6	\$152.8	\$164.9	\$177.6	\$5,005.6
CLOSING CASH BALANCE	(\$1,852.9)	(\$1,691.2)	(\$1,515.3)	(\$1,383.1)	(\$1,239.4)	(\$1,083.4)	(\$935.1)	(\$774.5)	(\$635.4)	(\$493.8)	(\$340.9)	(\$176.0)	\$1.6	

2014 Adjusted Charge Per Capita	\$2,696.00
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Allocation of Capital Program	
Residential Sector	90%
Non-Residential Sector	10%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
NORWICH SERVICE AREA - WATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

7.0 NORWICH SERVICE AREA - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$62.0)	(\$62.2)	(\$61.4)	(\$60.6)	(\$59.6)	(\$55.7)	(\$47.7)	(\$36.1)	(\$23.6)	(\$10.1)	\$4.4	\$2.8	(\$3.2)	(\$9.6)
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS															
NORWICH SERVICE AREA - WATER - constant (\$000)	\$63.7	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$11.2	\$11.2	\$11.2	\$11.2
NORWICH SERVICE AREA - WATER - current (\$000)	\$63.7	\$0.1	\$0.1	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$13.9	\$14.2	\$14.5	\$14.8
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	340	340	425	425	425	680	1,020	1,275	1,275	1,275	1,275	1,020	680	680	680
	2%	2%	2%	2%	2%	4%	6%	7%	7%	7%	7%	6%	4%	4%	4%
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$3.3	\$3.3	\$4.3	\$4.3	\$4.4	\$7.2	\$11.1	\$14.1	\$14.4	\$14.7	\$15.0	\$12.2	\$8.3	\$8.5	\$8.6
- Interest on Opening Balance	\$0.0	(\$3.4)	(\$3.4)	(\$3.4)	(\$3.3)	(\$3.3)	(\$3.1)	(\$2.6)	(\$2.0)	(\$1.3)	(\$0.6)	\$0.2	\$0.1	(\$0.2)	(\$0.5)
- Interest on In-year Transactions (excl.int.)	(\$1.7)	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.2	\$0.2	\$0.2	\$0.3	\$0.3	(\$0.0)	(\$0.2)	(\$0.2)	(\$0.2)
TOTAL REVENUE	\$1.6	(\$0.1)	\$0.9	\$1.0	\$1.1	\$4.0	\$8.2	\$11.7	\$12.7	\$13.7	\$14.7	\$12.3	\$8.2	\$8.2	\$7.9
CLOSING CASH BALANCE	(\$62.0)	(\$62.2)	(\$61.4)	(\$60.6)	(\$59.6)	(\$55.7)	(\$47.7)	(\$36.1)	(\$23.6)	(\$10.1)	\$4.4	\$2.8	(\$3.2)	(\$9.6)	(\$16.5)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$16.5)	(\$25.0)	(\$34.0)	(\$43.8)	(\$39.9)	(\$35.6)	(\$31.0)	(\$26.6)	(\$21.9)	(\$17.8)	(\$13.6)	(\$9.1)	(\$4.3)	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS														
NORWICH SERVICE AREA - WATER - constant (\$000)	\$11.2	\$11.2	\$11.2	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$145.0
NORWICH SERVICE AREA - WATER - current (\$000)	\$15.1	\$15.4	\$15.7	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$171.2
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	\$595.0	\$595.0	\$595.0	\$467.5	\$467.5	\$467.5	\$425.0	\$425.0	\$357.0	\$340.0	\$340.0	\$340.0	\$340.0	\$17,569.5
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$7.7	\$7.9	\$8.0	\$6.4	\$6.6	\$6.7	\$6.2	\$6.3	\$5.4	\$5.3	\$5.4	\$5.5	\$5.6	\$216.7
- Interest on Opening Balance	(\$0.9)	(\$1.4)	(\$1.9)	(\$2.4)	(\$2.2)	(\$2.0)	(\$1.7)	(\$1.5)	(\$1.2)	(\$1.0)	(\$0.8)	(\$0.5)	(\$0.2)	(\$44.4)
- Interest on In-year Transactions (excl.int.)	(\$0.2)	(\$0.2)	(\$0.2)	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	(\$0.2)
TOTAL REVENUE	\$6.6	\$6.3	\$5.9	\$4.1	\$4.5	\$4.9	\$4.6	\$4.9	\$4.3	\$4.4	\$4.7	\$5.1	\$5.5	\$172.1
CLOSING CASH BALANCE	(\$25.0)	(\$34.0)	(\$43.8)	(\$39.9)	(\$35.6)	(\$31.0)	(\$26.6)	(\$21.9)	(\$17.8)	(\$13.6)	(\$9.1)	(\$4.3)	\$0.9	

2014 Adjusted Charge Per Square Metre	\$9.62
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Allocation of Capital Program	
Residential Sector	90%
Non-Residential Sector	10%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
NORWICH SERVICE AREA - WASTEWATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

7.0 NORWICH SERVICE AREA - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	\$12.2	\$25.1	\$41.8	\$59.4	\$67.5	(\$220.6)	(\$434.1)	(\$405.5)	(\$374.2)	(\$340.1)	(\$303.0)	(\$274.2)	(\$258.4)	(\$241.0)
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS															
NORWICH SERVICE AREA - WASTEWATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$9.6	\$280.0	\$210.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
NORWICH SERVICE AREA - WASTEWATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$10.4	\$309.1	\$236.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	340	340	425	425	425	680	1,020	1,275	1,275	1,275	1,275	1,020	680	680	680
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$12.0	\$12.2	\$15.6	\$15.9	\$16.2	\$26.5	\$40.5	\$51.6	\$52.7	\$53.7	\$54.8	\$44.7	\$30.4	\$31.0	\$31.6
- Interest on Opening Balance	\$0.0	\$0.4	\$0.9	\$1.5	\$2.1	\$2.4	(\$12.1)	(\$23.9)	(\$22.3)	(\$20.6)	(\$18.7)	(\$16.7)	(\$15.1)	(\$14.2)	(\$13.3)
- Interest on In-year Transactions (excl.int.)	\$0.2	\$0.2	\$0.3	\$0.3	\$0.1	(\$7.8)	(\$5.4)	\$0.9	\$0.9	\$0.9	\$1.0	\$0.8	\$0.5	\$0.5	\$0.6
TOTAL REVENUE	\$12.2	\$12.8	\$16.7	\$17.6	\$18.4	\$21.1	\$23.0	\$28.6	\$31.3	\$34.1	\$37.1	\$28.8	\$15.8	\$17.3	\$18.9
CLOSING CASH BALANCE	\$12.2	\$25.1	\$41.8	\$59.4	\$67.5	(\$220.6)	(\$434.1)	(\$405.5)	(\$374.2)	(\$340.1)	(\$303.0)	(\$274.2)	(\$258.4)	(\$241.0)	(\$222.2)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$222.2)	(\$205.7)	(\$187.7)	(\$168.1)	(\$153.4)	(\$137.4)	(\$120.1)	(\$103.6)	(\$85.7)	(\$70.2)	(\$54.5)	(\$37.4)	(\$19.0)	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS														
NORWICH SERVICE AREA - WASTEWATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$499.6
NORWICH SERVICE AREA - WASTEWATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$556.0
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	595	595	595	468	468	468	425	425	357	340	340	340	340	17,570
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$28.2	\$28.8	\$29.4	\$23.5	\$24.0	\$24.5	\$22.7	\$23.2	\$19.8	\$19.3	\$19.7	\$20.1	\$20.5	\$793.1
- Interest on Opening Balance	(\$12.2)	(\$11.3)	(\$10.3)	(\$9.2)	(\$8.4)	(\$7.6)	(\$6.6)	(\$5.7)	(\$4.7)	(\$3.9)	(\$3.0)	(\$2.1)	(\$1.0)	(\$235.7)
- Interest on In-year Transactions (excl.int.)	\$0.5	\$0.5	\$0.5	\$0.4	\$0.4	\$0.4	\$0.4	\$0.4	\$0.3	\$0.3	\$0.3	\$0.4	\$0.4	(\$0.6)
TOTAL REVENUE	\$16.5	\$18.0	\$19.6	\$14.7	\$16.0	\$17.4	\$16.5	\$17.9	\$15.4	\$15.8	\$17.0	\$18.4	\$19.8	\$556.8
CLOSING CASH BALANCE	(\$205.7)	(\$187.7)	(\$168.1)	(\$153.4)	(\$137.4)	(\$120.1)	(\$103.6)	(\$85.7)	(\$70.2)	(\$54.5)	(\$37.4)	(\$19.0)	\$0.8	

2014 Adjusted Charge Per Square Metre	\$35.25
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Allocation of Capital Program	
Residential Sector	90%
Non-Residential Sector	10%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

APPENDIX K

WATER AND WASTEWATER AREA-SPECIFIC TECHNICAL APPENDIX THAMESFORD

This appendix provides a brief outline of the County's water and wastewater infrastructure needs for the Thamesford service area. The development-related projects are required in order to maintain the servicing needs of new residential and non-residential development in the Thamesford service area.

The following sections set out the 2014 to 2041 development-related capital forecast and the calculation of the development charges. The cost, quantum and timing of the projects included in the forecast have been provided by the County's Public Works Department. Consistent with s.5.(1)7. of the *DCA*, there is no legislated percentage reduction in the eligible development-related capital cost for the provision of water and wastewater infrastructure. Tables 1–4 provide details of the projects included in the Thamesford service area development charges calculation; the content of the individual tables is as follows:

Table 1 Development-Related Water and Wastewater Capital Program

Table 2 Calculation of the Unadjusted Development Charges Rates

Table 3 Residential Cash Flow

Table 4 Non-Residential Cash Flow

The following is a summary of the calculated water and wastewater development charges rates for the Thamesford service area:

Residential	Adjusted Charge Per Capita	Charge By Unit Type ⁽¹⁾				Non-Residential Charge Per Square Metre
		Single & Semi-Detached	Rows & Other Multiples	Apartments		
				2 Bedrooms & Larger	Bachelor & 1 Bedroom	
Water	\$651.00	\$2,103	\$1,432	\$1,042	\$781	\$ 8.70
Wastewater	\$1,861.00	\$6,011	\$4,094	\$2,978	\$2,233	\$ 24.76
Total Water and Wastewater	\$2,512.00	\$8,114	\$5,526	\$4,020	\$3,014	\$ 33.46

(1) Based on Persons Per Unit Of:

3.23

2.20

1.60

1.20

APPENDIX K
TABLE 1COUNTY OF OXFORD
2014 DEVELOPMENT CHARGE STUDY
DEVELOPMENT-RELATED WATER & WASTEWATER CAPITAL PROGRAM
THAMESFORD SERVICE AREA

THAMESFORD Attributed to Development 2014 to 2041	Timing (year)	Capital Cost (Estimate)	Recoveries		Net Capital Cost	Benefit to Existing & Local Share ²		Prior Growth ³	Available DC Reserves ³	Total Growth-Related	Post 2041 ⁴	Notes
			Grants/Subs	Other		%	\$					
Water												
Recovery of Completed Projects												
n/a Middleton Street Watermain	Pre 2014	\$ 70,000	\$ -	\$ -	\$ 70,000	0%	\$ -	\$ -	\$ 70,000	\$ -	\$ -	5
n/a Water Tower / Stanley Street Well	Pre 2014	\$ 280,315	\$ -	\$ -	\$ 280,315	50%	\$ 140,160	\$ -	\$ 90,965	\$ 49,190	\$ -	5
n/a Water Upgrades	Pre 2014	\$ 2,842,348	\$ -	\$ -	\$ 2,842,348	80%	\$ 2,273,880	\$ -	\$ -	\$ 568,468	\$ -	5,8
n/a County Rd. 2 / Banner Road Watermain	Pre 2014	\$ 450,801	\$ -	\$ -	\$ 450,801	0%	\$ -	\$ 101,956	\$ -	\$ 348,845	\$ -	5
Water Model and Related Studies (\$50,000/yr)	2014 - 2031	\$ 500,000	\$ -	\$ 468,000	\$ 32,000	0%	\$ -	\$ -	\$ -	\$ 32,000	\$ -	6
Total Water		\$ 4,143,464	\$ -	\$ 468,000	\$ 3,675,464		\$ 2,414,040	\$ 101,956	\$ 160,965	\$ 998,503	\$ -	
Wastewater Collection System												
Recovery of Completed Projects												
Oversizing recovery	Pre 2014	\$ 33,660	\$ -	\$ -	\$ 33,660	0.0%	\$ -	\$ -	\$ 33,660	\$ -	\$ -	
Sub-Total Wastewater Collection System		\$ 33,660	\$ -	\$ -	\$ 33,660		\$ -	\$ -	\$ 33,660	\$ -	\$ -	
Wastewater Treatment												
Recovery of Completed Projects												
n/a Biosolids Centralized Storage Facility	Pre 2014	\$ 1,586,517	\$ -	\$ 1,403,854	\$ 182,663	68.8%	\$ 125,665	\$ -	\$ 56,998	\$ -	\$ -	5,6,7
n/a WWTP Phase 1 Upgrades	Pre 2014	\$ 3,600,000	\$ -	\$ -	\$ 3,600,000	88.0%	\$ 3,168,000	\$ 55,484	\$ 74,678	\$ 301,838	\$ -	5
New Projects												
950705 Dewatering	2016-2017	\$ 1,720,000	\$ -	\$ -	\$ 1,720,000	54.0%	\$ 928,800	\$ -	\$ -	\$ 791,200	\$ -	
n/a Biosolids Centralized Storage Facility	2016 - 2017	\$ 750,000	\$ -	\$ 692,555	\$ 57,445	68.8%	\$ 39,520	\$ -	\$ -	\$ 17,925	\$ -	5,6,7
950710 WWTP Phase 2	2020	\$ 623,000	\$ -	\$ -	\$ 623,000	54.0%	\$ 336,420	\$ -	\$ -	\$ 200,606	\$ 85,974	
950710 WWTP Phase 2	2021	\$ 3,634,000	\$ -	\$ -	\$ 3,634,000	54.0%	\$ 1,962,360	\$ -	\$ -	\$ 1,170,148	\$ 501,492	
950710 WWTP Phase 2	2022	\$ 2,596,000	\$ -	\$ -	\$ 2,596,000	54.0%	\$ 1,401,840	\$ -	\$ -	\$ 835,912	\$ 358,248	
Sub-Total Wastewater Treatment		\$ 14,509,517	\$ -	\$ 2,096,409	\$ 12,413,108		\$ 7,962,605	\$ 55,484	\$ 131,676	\$ 3,317,629	\$ 945,714	
Total Wastewater		\$ 14,543,177	\$ -	\$ 2,096,409	\$ 12,446,768		\$ 7,962,605	\$ 55,484	\$ 165,336	\$ 3,317,629	\$ 945,714	

Notes:

- 1) Source: County of Oxford staff based on current estimates, past project costing, and any available servicing studies.
- 2) Benefit to existing shares based on consideration of a variety of factors
- 3) Prior growth and Available DC Reserves is the share of projects funded from existing or committed development charge reserve fund balances.
- 4) Post Period Benefit shares are identified as the project is designed to service growth beyond 2041
- 5) Benefit to existing shares consistent with 2009 DC Study.
- 6) These costs are shared against growth in all the service area. Allocation based on share of population in new housing unit growth over 2014-2041. Amount shown under Recover "Other" is portion being recovered from other service development charge calculations.
- 7) These project are deemed to service existing population and growth. The benefit to existing share is based on shares of existing population and population in new units (2014-2041) County-wide.
- 8) The benefit to existing share of the Water Upgrades includes \$1.5 million in OSTAR funding.

APPENDIX K
TABLE 2

COUNTY OF OXFORD
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
WATER AND WASTEWATER SERVICING - THAMESFORD

Growth 2014-2041

Population in New Units	1,680
Employment Growth	170
Ultimate Growth in Square Meters	14,450

Thamesford	Development-Related Capital Forecast									
	Gross Cost	Grants and Subsidies	Prior Growth (and Existing Reserve Fund)	Benefit to Existing Share	Post Period Benefit (Calculated Oversizing) ²	Total DC Eligible Costs for Recovery	Residential Share	Non-Residential Share		
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	%	\$000	%	\$000
Water										
Development-Related Capital Projects - Water	\$4,143.5	\$468.0	\$262.9	\$2,414.0	\$0.0	\$998.5	90%	\$898.7	10%	\$99.9
Unadjusted Development Charge Per Capita (\$)								\$ 534.91		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 6.91
Wastewater										
Development-Related Capital Projects - Wastewater	\$14,543.2	\$2,096.4	\$220.8	\$7,962.6	\$945.7	\$3,317.6	90%	\$2,985.9	10%	\$331.8
Unadjusted Development Charge Per Capita (\$)								\$ 1,777.30		
Unadjusted Development Charge Per Sq. M. (\$)										\$ 22.96

Notes:

- 1) No legislated service discounts for water and wastewater projects.
- 2) Works anticipated to benefit development beyond 2041

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
THAMESFORD SERVICE AREA - WATER
RESIDENTIAL DEVELOPMENT CHARGE

8.0 THAMESFORD SERVICE AREA - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$801.8)	(\$759.8)	(\$720.5)	(\$677.5)	(\$630.5)	(\$579.1)	(\$523.3)	(\$462.7)	(\$404.6)	(\$357.6)	(\$306.6)	(\$251.4)	(\$217.0)	(\$179.6)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
THAMESFORD SERVICE AREA - WATER - constant (\$000)	\$871.5	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6	\$1.6
THAMESFORD SERVICE AREA - WATER - current (\$000)	\$871.5	\$1.6	\$1.7	\$1.7	\$1.7	\$1.8	\$1.8	\$1.8	\$1.9	\$1.9	\$2.0	\$2.0	\$2.0	\$2.1	\$2.1
POPULATION GROWTH															
- Population in New Units	140	130	120	120	120	120	120	120	110	90	90	90	60	60	60
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$91.1	\$86.3	\$81.3	\$82.9	\$84.6	\$86.3	\$88.0	\$89.7	\$83.9	\$70.0	\$71.4	\$72.8	\$49.5	\$50.5	\$51.5
- Interest on Opening Balance	\$0.0	(\$44.1)	(\$41.8)	(\$39.6)	(\$37.3)	(\$34.7)	(\$31.9)	(\$28.8)	(\$25.4)	(\$22.3)	(\$19.7)	(\$16.9)	(\$13.8)	(\$11.9)	(\$9.9)
- Interest on In-year Transactions (excl.int.)	(\$21.5)	\$1.5	\$1.4	\$1.4	\$1.5	\$1.5	\$1.5	\$1.5	\$1.4	\$1.2	\$1.2	\$1.2	\$0.8	\$0.8	\$0.9
TOTAL REVENUE	\$69.6	\$43.7	\$40.9	\$44.7	\$48.8	\$53.1	\$57.7	\$62.5	\$59.9	\$48.9	\$52.9	\$57.2	\$36.5	\$39.4	\$42.5
CLOSING CASH BALANCE	(\$801.8)	(\$759.8)	(\$720.5)	(\$677.5)	(\$630.5)	(\$579.1)	(\$523.3)	(\$462.7)	(\$404.6)	(\$357.6)	(\$306.6)	(\$251.4)	(\$217.0)	(\$179.6)	(\$139.3)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$139.3)	(\$95.6)	(\$48.5)	\$2.2	\$2.2	\$2.3	\$2.4	\$2.5	\$2.6	\$2.7	\$2.8	\$2.9	\$3.0	
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
THAMESFORD SERVICE AREA - WATER - constant (\$000)	\$1.6	\$1.6	\$1.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$898.7
THAMESFORD SERVICE AREA - WATER - current (\$000)	\$2.2	\$2.2	\$2.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$904.1
POPULATION GROWTH														
- Population in New Units	60	60	60	0	0	0	0	0	0	0	0	0	0	1,730
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$52.6	\$53.6	\$54.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,300.7
- Interest on Opening Balance	(\$7.7)	(\$5.3)	(\$2.7)	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	(\$392.7)
- Interest on In-year Transactions (excl.int.)	\$0.9	\$0.9	\$0.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.9)
TOTAL REVENUE	\$45.8	\$49.2	\$52.9	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$907.2
CLOSING CASH BALANCE	(\$95.6)	(\$48.5)	\$2.2	\$2.2	\$2.3	\$2.4	\$2.5	\$2.6	\$2.7	\$2.8	\$2.9	\$3.0	\$3.1	

2014 Adjusted Charge Per Capita	\$ 651.0
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Allocation of Capital Program	
Residential Sector	90%
Non-Residential Sector	10%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
THAMESFORD SERVICE AREA - WASTEWATER
RESIDENTIAL DEVELOPMENT CHARGE

8.0 THAMESFORD SERVICE AREA - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$11.5)	\$239.0	\$96.8	(\$53.3)	\$189.7	\$244.5	(\$707.2)	(\$1,370.5)	(\$1,201.7)	(\$1,064.1)	(\$914.9)	(\$753.3)	(\$650.6)	(\$539.5)
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS															
THAMESFORD SERVICE AREA - WASTEWATER - constant (\$000)	\$271.7	\$0.0	\$364.1	\$364.1	\$0.0	\$180.5	\$1,053.1	\$752.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
THAMESFORD SERVICE AREA - WASTEWATER - current (\$000)	\$271.7	\$0.0	\$378.8	\$386.4	\$0.0	\$199.3	\$1,186.0	\$864.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
POPULATION GROWTH															
- Population in New Units	140	130	120	120	120	120	120	120	110	90	90	90	60	60	60
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$260.5	\$246.8	\$232.3	\$237.0	\$241.7	\$246.6	\$251.5	\$256.5	\$239.9	\$200.2	\$204.2	\$208.3	\$141.6	\$144.4	\$147.3
- Interest on Opening Balance	\$0.0	(\$0.6)	\$8.4	\$3.4	(\$2.9)	\$6.6	\$8.6	(\$38.9)	(\$75.4)	(\$66.1)	(\$58.5)	(\$50.3)	(\$41.4)	(\$35.8)	(\$29.7)
- Interest on In-year Transactions (excl.int.)	(\$0.3)	\$4.3	(\$4.0)	(\$4.1)	\$4.2	\$0.8	(\$25.7)	(\$16.7)	\$4.2	\$3.5	\$3.6	\$3.6	\$2.5	\$2.5	\$2.6
TOTAL REVENUE	\$260.2	\$250.5	\$236.6	\$236.3	\$243.0	\$254.1	\$234.4	\$200.9	\$168.7	\$137.6	\$149.2	\$161.6	\$102.6	\$111.1	\$120.2
CLOSING CASH BALANCE	(\$11.5)	\$239.0	\$96.8	(\$53.3)	\$189.7	\$244.5	(\$707.2)	(\$1,370.5)	(\$1,201.7)	(\$1,064.1)	(\$914.9)	(\$753.3)	(\$650.6)	(\$539.5)	(\$419.3)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$419.3)	(\$289.4)	(\$149.3)	\$1.6	\$1.7	\$1.7	\$1.8	\$1.8	\$1.9	\$2.0	\$2.0	\$2.1	\$2.2	\$0.0
2014 to 2041 RESIDENTIAL FUNDING REQUIREMENTS														
THAMESFORD SERVICE AREA - WASTEWATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,985.9
THAMESFORD SERVICE AREA - WASTEWATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,286.4
POPULATION GROWTH														
- Population in New Units	60	60	60	0	0	0	0	0	0	0	0	0	0	1,730
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$150.3	\$153.3	\$156.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,718.8
- Interest on Opening Balance	(\$23.1)	(\$15.9)	(\$8.2)	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	(\$419.2)
- Interest on In-year Transactions (excl.int.)	\$2.6	\$2.7	\$2.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$10.9)
TOTAL REVENUE	\$129.9	\$140.1	\$150.9	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$3,288.6
CLOSING CASH BALANCE	(\$289.4)	(\$149.3)	\$1.6	\$1.7	\$1.7	\$1.8	\$1.8	\$1.9	\$2.0	\$2.0	\$2.1	\$2.2	\$2.3	

2014 Adjusted Charge Per Capita	\$1,861.00
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Allocation of Capital Program	
Residential Sector	90%
Non-Residential Sector	10%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
THAMESFORD SERVICE AREA - WATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

8.0 THAMESFORD SERVICE AREA - WATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$89.0)	(\$84.3)	(\$79.9)	(\$75.0)	(\$69.8)	(\$64.0)	(\$57.8)	(\$51.0)	(\$44.5)	(\$39.2)	(\$33.4)	(\$27.2)	(\$23.4)	(\$19.2)
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS															
THAMESFORD SERVICE AREA - WATER - constant (\$000)	\$96.8	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2
THAMESFORD SERVICE AREA - WATER - current (\$000)	\$96.8	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	1,169	1,086	1,002	1,002	1,002	1,002	1,002	1,002	919	752	752	752	501	501	501
	8%	8%	7%	7%	7%	7%	7%	7%	6%	5%	5%	5%	3%	3%	3%
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$10.2	\$9.6	\$9.1	\$9.3	\$9.4	\$9.6	\$9.8	\$10.0	\$9.4	\$7.8	\$8.0	\$8.1	\$5.5	\$5.6	\$5.8
- Interest on Opening Balance	\$0.0	(\$4.9)	(\$4.6)	(\$4.4)	(\$4.1)	(\$3.8)	(\$3.5)	(\$3.2)	(\$2.8)	(\$2.4)	(\$2.2)	(\$1.8)	(\$1.5)	(\$1.3)	(\$1.1)
- Interest on In-year Transactions (excl.int.)	(\$2.4)	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1
TOTAL REVENUE	\$7.8	\$4.9	\$4.6	\$5.1	\$5.4	\$5.9	\$6.4	\$7.0	\$6.8	\$5.5	\$6.0	\$6.4	\$4.1	\$4.4	\$4.8
CLOSING CASH BALANCE	(\$89.0)	(\$84.3)	(\$79.9)	(\$75.0)	(\$69.8)	(\$64.0)	(\$57.8)	(\$51.0)	(\$44.5)	(\$39.2)	(\$33.4)	(\$27.2)	(\$23.4)	(\$19.2)	(\$14.6)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$14.6)	(\$9.6)	(\$4.3)	\$1.4	\$1.5	\$1.5	\$1.6	\$1.6	\$1.7	\$1.7	\$1.8	\$1.9	\$1.9	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS														
THAMESFORD SERVICE AREA - WATER - constant (\$000)	\$0.2	\$0.2	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$99.9
THAMESFORD SERVICE AREA - WATER - current (\$000)	\$0.2	\$0.2	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$100.5
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	501	501	501	-	-	-	-	-	-	-	-	-	-	14,450
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$5.9	\$6.0	\$6.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$145.2
- Interest on Opening Balance	(\$0.8)	(\$0.5)	(\$0.2)	\$0.0	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	(\$42.7)
- Interest on In-year Transactions (excl.int.)	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)
TOTAL REVENUE	\$5.2	\$5.6	\$6.0	\$0.0	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$102.5
CLOSING CASH BALANCE	(\$9.6)	(\$4.3)	\$1.4	\$1.5	\$1.5	\$1.6	\$1.6	\$1.7	\$1.7	\$1.8	\$1.9	\$1.9	\$2.0	

2014 Adjusted Charge Per Square Metre	\$8.70
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Allocation of Capital Program	
Residential Sector	90%
Non-Residential Sector	10%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

COUNTY OF OXFORD
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
THAMESFORD SERVICE AREA - WASTEWATER
NON-RESIDENTIAL DEVELOPMENT CHARGE

8.0 THAMESFORD SERVICE AREA - WASTEWATER

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OPENING CASH BALANCE FROM APPLICABLE RESERVES															
OPENING CASH BALANCE (\$000)	\$0.0	(\$1.2)	\$26.6	\$10.8	(\$5.9)	\$21.1	\$27.2	(\$78.6)	(\$152.3)	(\$133.5)	(\$118.2)	(\$101.6)	(\$83.7)	(\$72.4)	(\$60.0)
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS															
THAMESFORD SERVICE AREA - WASTEWATER - constant (\$000)	\$30.2	\$0.0	\$40.5	\$40.5	\$0.0	\$20.1	\$117.0	\$83.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
THAMESFORD SERVICE AREA - WASTEWATER - current (\$000)	\$30.2	\$0.0	\$42.1	\$42.9	\$0.0	\$22.1	\$131.8	\$96.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
NON-RESIDENTIAL GROWTH															
- Growth in Sq. m	1,169	1,086	1,002	1,002	1,002	1,002	1,002	1,002	919	752	752	752	501	501	501
REVENUE - current (\$000)															
- Dev. Charge Receipts	\$29.0	\$27.4	\$25.8	\$26.3	\$26.9	\$27.4	\$27.9	\$28.5	\$26.7	\$22.2	\$22.7	\$23.1	\$15.7	\$16.1	\$16.4
- Interest on Opening Balance	\$0.0	(\$0.1)	\$0.9	\$0.4	(\$0.3)	\$0.7	\$1.0	(\$4.3)	(\$8.4)	(\$7.3)	(\$6.5)	(\$5.6)	(\$4.6)	(\$4.0)	(\$3.3)
- Interest on In-year Transactions (excl.int.)	(\$0.0)	\$0.5	(\$0.4)	(\$0.5)	\$0.5	\$0.1	(\$2.9)	(\$1.9)	\$0.5	\$0.4	\$0.4	\$0.4	\$0.3	\$0.3	\$0.3
TOTAL REVENUE	\$29.0	\$27.8	\$26.3	\$26.2	\$27.0	\$28.2	\$26.0	\$22.3	\$18.8	\$15.2	\$16.6	\$17.9	\$11.4	\$12.4	\$13.4
CLOSING CASH BALANCE	(\$1.2)	\$26.6	\$10.8	(\$5.9)	\$21.1	\$27.2	(\$78.6)	(\$152.3)	(\$133.5)	(\$118.2)	(\$101.6)	(\$83.7)	(\$72.4)	(\$60.0)	(\$46.6)

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	(\$46.6)	(\$32.1)	(\$16.6)	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.0
2014 to 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS														
THAMESFORD SERVICE AREA - WASTEWATER - constant (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$331.8
THAMESFORD SERVICE AREA - WASTEWATER - current (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$365.2
NON-RESIDENTIAL GROWTH														
- Growth in Sq. m	501	501	501	-	-	-	-	-	-	-	-	-	-	14,450
REVENUE - current (\$000)														
- Dev. Charge Receipts	\$16.7	\$17.0	\$17.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$413.2
- Interest on Opening Balance	(\$2.6)	(\$1.8)	(\$0.9)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$46.6)
- Interest on In-year Transactions (excl.int.)	\$0.3	\$0.3	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$1.2)
TOTAL REVENUE	\$14.4	\$15.5	\$16.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$365.4
CLOSING CASH BALANCE	(\$32.1)	(\$16.6)	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.3	

2014 Adjusted Charge Per Square Metre

\$24.76

Allocation of Capital Program	
Residential Sector	90%
Non-Residential Sector	10%
Rates for 2014	
Inflation Rate	2.0%
Inflation Rate on Positive Balances	3.5%
Inflation Rate on Negative Balances	5.5%

APPENDIX L

RESERVE FUND BALANCES

APPENDIX L

DEVELOPMENT CHARGES RESERVE FUNDS

The *DCA* requires that a reserve fund be established for each service for which development charges are collected. Table 1 presents the uncommitted reserve fund balances that are available to help fund the development-related net capital costs identified in this study. The opening balances of the development charges reserve funds as at December 31, 2013, have been adjusted to account for current commitments to projects. All of the available reserve fund balances are therefore accounted for in this study.

As shown on Table 1, the December 31, 2013 total reserve fund balance was approximately \$16.53 million.

The application of the available uncommitted balance in each of the reserve funds is discussed in the appendix section related to each service. These funds are assigned to projects in the initial years of the capital program for each service. This has the effect of reducing and deferring capital costs brought forward to the development charge calculation and the cash flow analysis.

**APPENDIX L
TABLE 1**

**OXFORD COUNTY
DEVELOPMENT CHARGE RESERVE FUND BALANCE BY ACCOUNT
YEAR ENDING DECEMBER 31, 2013**

Service	Reserve Fund Balance as at Dec. 31, 2013	2014 Capital Budget Draws	Uncommitted Reserve Funds
General Government	\$527,891.96	\$0.00	\$527,891.96
Library Services	\$345,687.79	\$0.00	\$345,687.79
Land Ambulance Services	\$223,923.04	\$0.00	\$223,923.04
Facilities	\$66,728.19	\$0.00	\$66,728.19
Total General Services	\$1,164,230.98	\$0.00	\$1,164,230.98
Roads And Related	\$2,235,195.44	\$0.00	\$2,235,195.44
Water	\$5,206,113.50	\$0.00	\$5,206,113.50
Sanitary Sewer	\$7,924,931.93	\$0.00	\$7,924,931.93
Total Engineering Services	\$15,366,240.87	\$0.00	\$15,366,240.87
Total Development Charge Reserves	\$16,530,471.85	\$0.00	\$16,530,471.85

APPENDIX M

LONG TERM CAPITAL AND OPERATING COST IMPACTS

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APPENDIX M
TABLE 1

OXFORD COUNTY
ESTIMATED NET OPERATING COST OF THE PROPOSED
DEVELOPMENT-RELATED CAPITAL PROGRAM
(in constant 2014 dollars)

	Net Cost (in 2014\$)	Estimated Operating Costs (\$000)										
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Library Services		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- No additional operating costs		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Land Ambulance		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- No additional operating costs		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Administration Building		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- No additional operating costs		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Roads and Related		\$96.8	\$194.8	\$294.0	\$389.4	\$485.8	\$583.4	\$682.2	\$782.0	\$864.4	\$947.6	
- Development-Related Roads Infrastructure	\$200 per household	\$96.8	\$194.8	\$294.0	\$389.4	\$485.8	\$583.4	\$682.2	\$782.0	\$864.4	\$947.6	
TOTAL ESTIMATED OPERATING COSTS		\$96.8	\$194.8	\$294.0	\$389.4	\$485.8	\$583.4	\$682.2	\$782.0	\$864.4	\$947.6	

APPENDIX M
TABLE 2 - PAGE 1

OXFORD COUNTY
SUMMARY OF TAX SUPPORTED FUNDING REQUIREMENTS

Net Capital Cost of Development-Related Projects	2014 (\$000)	2015 (\$000)	2016 (\$000)	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)	2022 (\$000)	2023 (\$000)	TOTAL (\$000)
GENERAL GOVERNMENT											
Total Net Cost (1)	0.0	75.0	0.0	75.0	85.0	600.0	0.0	0.0	0.0	90.0	925.0
Net Cost From Development Charges (2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.6	34.6
Net Cost From Non-DC Sources	0.0	75.0	0.0	75.0	85.0	600.0	0.0	0.0	0.0	55.4	890.4
- Discount Portion (3)	0.0	7.5	0.0	7.5	8.5	30.0	0.0	0.0	0.0	9.0	62.5
- Available DC Reserves (4)	0.0	67.5	0.0	67.5	76.5	270.0	0.0	0.0	0.0	46.4	527.9
- Replacement & Benefit to Existing	0.0	0.0	0.0	0.0	0.0	300.0	0.0	0.0	0.0	0.0	300.0
- For Post 2023 Development (5)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LIBRARY SERVICES											
Total Net Cost (1)	230.3	230.3	230.3	230.3	230.3	230.3	230.3	230.3	200.3	170.4	2,213.1
Net Cost From Development Charges (2)	30.5	30.5	30.5	84.5	84.5	84.5	84.5	84.5	57.5	30.5	602.3
Net Cost From Non-DC Sources	199.8	199.8	199.8	145.8	145.8	145.8	145.8	145.8	142.8	139.8	1,610.9
- Discount Portion (3)	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	12.7	9.7	148.3
- Available DC Reserves (4)	72.3	72.3	72.3	18.4	18.4	18.4	18.4	18.4	18.4	18.4	345.7
- Replacement & Benefit to Existing	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	729.9
- For Post 2023 Development (5)	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	386.9
LAND AMBULANCE SERVICES											
Total Net Cost (1)	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	2,000.0
Net Cost From Development Charges (2)	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	616.0
Net Cost From Non-DC Sources	138.4	138.4	138.4	138.4	138.4	138.4	138.4	138.4	138.4	138.4	1,384.0
- Discount Portion (3)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	140.0
- Available DC Reserves (4)	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	223.9
- Replacement & Benefit to Existing	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	600.0
- For Post 2023 Development (5)	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	420.0

Notes: (1) For total development-related capital program see Appendix B.

(2) Share of capital program to be funded from development charges if calculated rates are fully implemented

(3) Mandatory 10% reduction for applicable services

(4) Portion of development-related capital program identified as available DC reserves (to be funded from present Development Charge reserve fund balances).

(5) Post 2023 development-related net capital costs may be eligible for development charges in future DC by-laws, but interim financing of this share may be required

APPENDIX M
TABLE 2 - PAGE 2

OXFORD COUNTY
SUMMARY OF TAX SUPPORTED FUNDING REQUIREMENTS

Net Capital Cost of Development-Related Projects	2014 (\$000)	2015 (\$000)	2016 (\$000)	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)	2022 (\$000)	2023 (\$000)	TOTAL (\$000)
ADMINISTRATION BUILDING											
Total Net Cost (1)	7,819.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7,819.2
Net Cost From Development Charges (2)	347.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	347.0
Net Cost From Non-DC Sources	7,472.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7,472.2
- Discount Portion (3)	46.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.0
- Available DC Reserves (4)	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7
- Replacement & Benefit to Existing	7,359.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7,359.5
- For Post 2023 Development (5)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROADS AND RELATED (6)											
Total Net Cost (1)	18,588.1	4,446.5	4,446.5	3,821.5	3,821.5	3,011.5	307.1	307.1	307.1	307.1	39,364.1
Net Cost From Development Charges (2)	6,127.2	2,350.0	2,350.0	2,319.0	2,319.0	2,278.6	153.6	153.6	153.6	153.6	18,357.8
Net Cost From Non-DC Sources	12,460.9	2,096.5	2,096.5	1,502.5	1,502.5	732.9	153.6	153.6	153.6	153.6	21,006.3
- Discount Portion (3)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Available DC Reserves (and Prior growth) (4)	4,595.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,595.9
- Replacement & Benefit to Existing	8,011.0	2,067.3	2,067.3	1,473.3	1,473.3	703.7	153.6	153.6	153.6	153.6	16,410.4
- For Post 2023 Development (5)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL MUNICIPAL SERVICES											
Total Net Cost (1)	26,837.6	4,951.8	4,876.8	4,326.8	4,336.8	4,041.8	737.4	737.4	707.5	767.5	52,321.4
Net Cost From Development Charges (2)	6,566.3	2,442.1	2,442.1	2,465.1	2,465.1	2,424.7	299.7	299.7	272.7	280.3	19,957.7
Net Cost From Non-DC Sources	20,271.3	2,509.7	2,434.7	1,861.7	1,871.7	1,617.1	437.8	437.8	434.8	487.2	32,363.7
- Discount Portion (3)	75.7	37.2	29.7	37.2	38.2	59.7	29.7	29.7	26.7	32.7	396.8
- Available DC Reserves (4)	4,757.4	162.2	94.7	108.3	117.3	310.8	40.8	40.8	40.8	87.2	5,760.1
- Replacement & Benefit to Existing	15,503.5	2,200.3	2,200.3	1,606.3	1,606.3	1,136.7	286.6	286.6	286.6	286.6	25,399.8
- For Post 2023 Development (5)	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	807.0

Notes: (1) For total development-related capital program see Appendix B.

(2) Share of capital program to be funded from development charges if calculated rates are fully implemented

(3) Mandatory 10% reduction for applicable services

(4) Portion of development-related capital program identified as available DC reserves (to be funded from present Development Charge reserve fund balances).

(5) Post 2023 development-related net capital costs may be eligible for development charges in future DC by-laws, but interim financing of this share may be required

(6) Roads and Related Capital Program extends to 2041, only however ten-year funding requirements are shown in this table.

APPENDIX N

***PROPOSED DRAFT 2014 COUNTY-WIDE DC BY-LAW
(AVAILABLE UNDER SEPARATE COVER)***

APPENDIX O

***PROPOSED DRAFT 2014 AREA-SPECIFIC WATER AND
WASTEWATER DC BY-LAWS
(AVAILABLE UNDER SEPARATE COVER)***