



 **Watson
& Associates**
ECONOMISTS LTD.

Development Charges Background Study

City of Sarnia

March 25, 2019

Watson & Associates Economists Ltd.
905-272-3600
info@watsonecon.ca

Table of Contents

	Page
Executive Summary	i
1. Introduction.....	1-1
1.1 Purpose of this Document.....	1-1
1.2 Summary of the Process.....	1-2
1.3 Changes to the D.C.A.: Bill 73	1-4
1.3.1 Area Rating.....	1-4
1.3.2 Asset Management Plan for New Infrastructure.....	1-4
1.3.3 60-Day Circulation of D.C. Background Study	1-5
1.3.4 Timing of Collection of D.C.s.....	1-5
1.3.5 Other Changes.....	1-5
2. Current City of Sarnia Policy	2-1
2.1 Schedule of Charges	2-1
2.2 Services Covered	2-1
2.3 Timing of D.C. Calculation and Payment	2-1
2.4 Indexing	2-2
2.5 Redevelopment Allowance	2-2
2.6 Exemptions	2-2
3. Anticipated Development in the City of Sarnia	3-1
3.1 Requirement of the Act	3-1
3.2 Basis of Population, Household and Non-Residential Gross Floor Area Forecast	3-1
3.3 Summary of Growth Forecast	3-2
4. The Approach to the Calculation of the Charge	4-1
4.1 Introduction	4-1
4.2 Services Potentially Involved	4-1
4.3 Increase in the Need for Service.....	4-1
4.4 Local Service Policy.....	4-6



Table of Contents (Cont'd)

	Page
4.5	Capital Forecast..... 4-7
4.6	Treatment of Credits 4-7
4.7	Existing Reserve Funds 4-8
4.8	Deductions..... 4-9
4.8.1	Reduction Required by Level of Service Ceiling 4-9
4.8.2	Reduction for Uncommitted Excess Capacity 4-11
4.8.3	Reduction for Benefit to Existing Development 4-11
4.8.4	Reduction for Anticipated Grants, Subsidies and Other Contributions..... 4-12
4.8.5	The 10% Reduction 4-12
4.9	Municipal-wide vs. Area Rating..... 4-13
4.10	Allocation of Development 4-13
4.11	Asset Management..... 4-13
4.12	Transit..... 4-14
5.	D.C.-Eligible Cost Analysis by Service 5-1
5.1	Introduction 5-1
5.2	Service Levels and 10-Year Capital Costs for D.C. Calculation..... 5-1
5.2.1	Parking..... 5-1
5.2.2	Outdoor Recreation Services 5-4
5.2.3	Indoor Recreation Facilities..... 5-7
5.2.4	Library Services 5-7
5.2.5	Administration 5-8
5.3	Service Levels and 13-Year Capital Costs for Sarnia's D.C. Calculation 5-10
5.3.1	Services Related to a Highway 5-10
5.3.2	County Roads 5-15
5.3.3	Public Works Facilities, Fleet & Equipment..... 5-17
5.3.4	Police Services 5-19
5.3.5	Fire Protection Services..... 5-21
5.4	Service Levels and Urban 13-Year Capital Costs for Sarnia's D.C. Calculation 5-25
5.4.1	Stormwater Drainage and Control Services 5-25
5.4.2	Wastewater Services 5-27
5.4.3	Water Services..... 5-29
5.5	Development Area 2 Capital Costs for Sarnia's Area-specific D.C. Calculation 5-31
5.5.1	Stormwater Services 5-31
5.5.2	Wastewater Services 5-33
5.5.3	Water Services..... 5-35



Table of Contents (Cont'd)

	Page
6. D.C. Calculation	6-1
7. D.C. Policy Recommendations and D.C. By-law Rules	7-1
7.1 Introduction	7-1
7.2 D.C. By-law Structure	7-2
7.3 D.C. By-law Rules.....	7-2
7.3.1 Payment in any Particular Case.....	7-2
7.3.2 Determination of the Amount of the Charge.....	7-3
7.3.3 Application to Redevelopment of Land (Demolition and Conversion).....	7-4
7.3.4 Exemptions (full or partial)	7-4
7.3.5 Phasing in	7-5
7.3.6 Timing of Collection	7-5
7.3.7 Indexing	7-5
7.3.8 The Applicable Areas.....	7-5
7.4 Other D.C. By-law Provisions	7-6
7.4.1 Categories of Services for Reserve Fund and Credit Purposes.....	7-6
7.4.2 By-law In-force Date	7-6
7.4.3 Minimum Interest Rate Paid on Refunds and Charged for Inter-Reserve Fund Borrowing	7-6
7.4.4 Area Rating.....	7-6
7.5 Other Recommendations	7-8
8. By-law Implementation	8-1
8.1 Public Consultation Process	8-1
8.1.1 Introduction	8-1
8.1.2 Public Meeting of Council.....	8-1
8.1.3 Other Consultation Activity.....	8-1
8.2 Anticipated Impact of the Charge on Development.....	8-2
8.3 Implementation Requirements	8-3
8.3.1 Introduction	8-3
8.3.2 Notice of Passage.....	8-3
8.3.3 By-law Pamphlet	8-3
8.3.4 Appeals.....	8-4
8.3.5 Complaints.....	8-4
8.3.6 Credits	8-5
8.3.7 Front-Ending Agreements.....	8-5
8.3.8 Severance and Subdivision Agreement Conditions	8-5
Appendix A Background Information on Residential and Non-Residential Growth Forecast.....	A-1



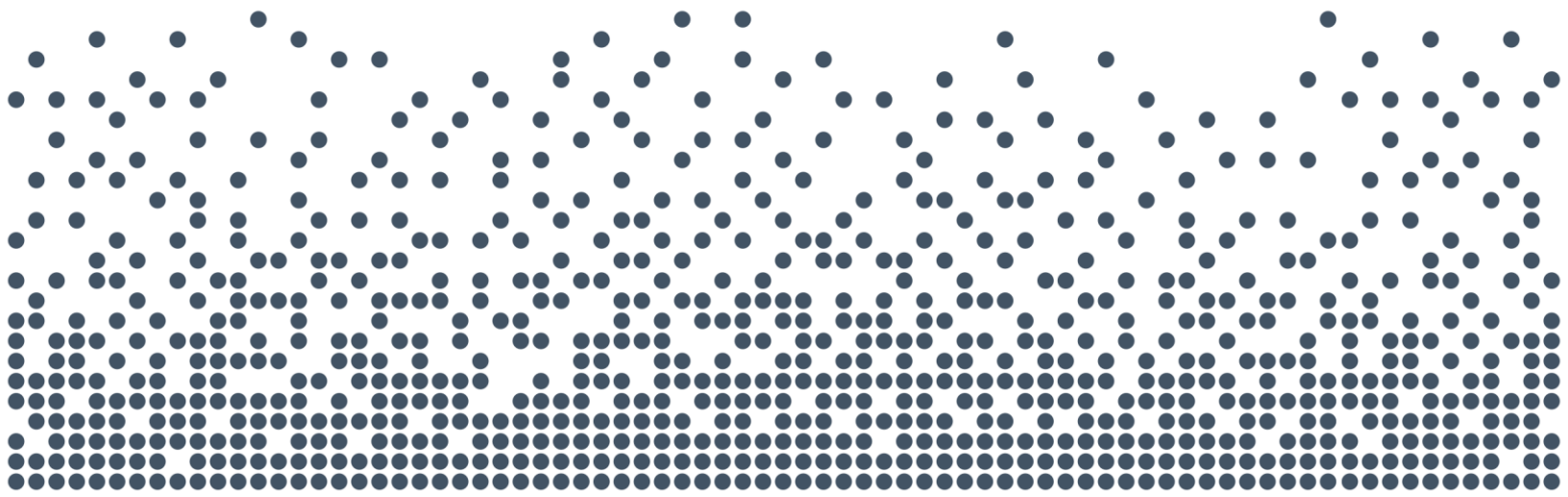
Table of Contents (Cont'd)

	Page
Appendix B Level of Service	B-1
Appendix C Long-Term Capital and Operating Cost Examination	C-1
Appendix D D.C. Reserve Fund Policy	D-1
Appendix E Local Service Policy	E-1
Appendix F Asset Management Plan.....	F-1
Appendix G Proposed D.C. By-law	G-1



List of Acronyms and Abbreviations

Acronym	Full Description of Acronym
D.C.	Development charge
D.C.A.	Development Charges Act, 1997, as amended
G.F.A.	Gross floor area
L.P.A.T.	Local Planning Appeal Tribunal
N.F.P.O.W.	No Fixed Place of Work
O.M.B.	Ontario Municipal Board
O.P.A.	Official Plan Amendment
O.Reg.	Ontario Regulation
P.O.A.	Provincial Offences Act
P.P.U.	Persons per unit
S.D.E.	Single detached equivalent
S.D.U.	Single detached unit
s.s.	Subsection
S.W.M.	Stormwater management
sq.ft.	square foot
sq.m	square metre



Executive Summary



Executive Summary

1. The report provided herein represents the Development Charges (D.C.) Background Study for the City of Sarnia required by the Development Charges Act, 1997 (D.C.A.). This report has been prepared in accordance with the methodology required under the D.C.A. The contents include the following:
 - Chapter 1 – Overview of the legislative requirements of the Act;
 - Chapter 2 – Review of present D.C. policies of the City;
 - Chapter 3 – Summary of the residential and non-residential growth forecasts for the City;
 - Chapter 4 – Approach to calculating the D.C.;
 - Chapter 5 – Review of historic service standards and identification of future capital requirements to service growth and related deductions and allocations;
 - Chapter 6 – Calculation of the D.C.s;
 - Chapter 7 – D.C. policy recommendations and rules; and
 - Chapter 8 – By-law implementation.

2. D.C.s provide for the recovery of growth-related capital expenditures from new development. The D.C.A. is the statutory basis to recover these charges. The methodology is detailed in Chapter 4; a simplified summary is provided below:
 - 1) Identify amount, type and location of growth;
 - 2) Identify servicing needs to accommodate growth;
 - 3) Identify capital costs to provide services to meet the needs;
 - 4) Deduct:
 - Grants, subsidies and other contributions;
 - Benefit to existing development;
 - Statutory 10% deduction (soft services);
 - Amounts in excess of 10-year historical service standard calculation;
 - D.C. reserve funds (where applicable);



- 5) Net costs are then allocated between residential and non-residential benefit; and
 - 6) Net costs divided by growth to provide the calculated D.C.
3. A number of changes to the D.C. study process need to be addressed as a result of Bill 73. These changes have been incorporated throughout the report and in the updated draft by-law, as necessary. These items include:
 - a. Area-rating: Council must consider the use of area-specific charges.
 - b. Asset Management Plan for New Infrastructure: The D.C. background study must include an asset management plan that deals with all assets proposed to be funded, in whole or in part, by D.C.s. The asset management plan must show that the assets are financially sustainable over their full lifecycle.
 - c. 60-day Circulation Period: The D.C. background study must be released to the public at least 60-days prior to passage of the D.C. by-law.
 - d. Timing of Collection of Development Charges: The D.C.A. now requires D.C.s to be collected at the time of the first building permit.
 4. The growth forecast (Chapter 3) on which the D.C. calculations are based, projects the following population, housing and non-residential floor area for the 10-year (2019 to 2028), 13-year (2019 to 2031), and urban 13-year (2019 to 2031 for all urban areas and Development Area 2 only) periods.

Measure	10-year	13-year	Development Area 2 Urban 13-year	All Other Urban Areas 13-year
	2019-2028	2019-2031	2019 - 2031	2019 - 2031
(Net) Population Increase	734	913	2,296	(1,082)
Residential Unit Increase	1,727	2,164	873	2,096
Non-Residential Gross Floor Area Increase (sq.ft.)	421,900	496,500	60,100	359,400

Source: Watson & Associates Economists Ltd. Forecast 2019

Note: 2031 forecast utilized based on Official Plan target forecast

5. On June 9, 2014, the City of Sarnia passed By-law 56 of 2014 under the D.C.A. The by-law imposes D.C.s on residential and non-residential uses. This by-law



will expire on June 9, 2019. The City is undertaking a D.C. public process and anticipates passing a new by-law in advance of the expiry date. The mandatory public meeting has been set for April 15, 2019 with adoption of the by-law on May 27, 2019.

6. The City's D.C.s currently in effect are \$7,973 for single detached dwelling units. Non-residential charges are \$5.10 per square foot. This report has undertaken a recalculation of the charge based on future identified needs (presented in Schedule ES-1 for residential and non-residential). Charges have been provided on a City-wide basis for all services except water, wastewater, and stormwater services, which have been provided on an urban-area basis (excluding Development Area 2). The single detached unit charge for these urban areas is \$18,097. The non-residential charge is \$8.06 per square foot of building area. These rates are submitted to Council for its consideration.
7. The City has identified area-specific D.C.s for additional costs related to Development Area 2. In the past, the City has requested additional payments from developers through development agreements to pay for water, wastewater, and stormwater infrastructure. Due to the recent "No Additional Levies" provision in the D.C.A. (as a result of Bill 73), the City has chosen to include growth-related capital costs related to Development Area 2 in the D.C. study. As a result, for Development Area 2, new development will pay the full City-wide charge as well as an additional \$27,397 per single-detached unit and \$13.78 per sq.ft. for non-residential development.
8. The D.C.A. requires a summary be provided of the gross capital costs and the net costs to be recovered over the life of the by-law. This calculation is provided by service and is presented in Table 6-6. A summary of these costs is provided below:

Total gross expenditures planned over the next five years	\$ 81,569,326
Less:	
Benefit to existing development	\$ 31,990,621
Post planning period benefit	\$ 17,170,688
Ineligible re: Level of Service	\$ -
Mandatory 10% deduction for certain services	\$ 339,735
Grants, subsidies and other contributions	\$ 1,296,905
Net Costs to be recovered from development charges	\$ 30,771,378



Hence, \$50.80 million (or an annual amount of \$10.16 million) will need to be contributed from taxes and rates, or other sources. Of this amount, \$17.17 million will be included in subsequent D.C. study updates to reflect the portion of capital that benefits growth in the post period D.C. forecasts.

Based on the above table, the City plans to spend \$81.57 million over the next five years, of which \$30.77 million (38%) is recoverable from D.C.s. Of this net amount, \$28.12 million is recoverable from residential development and \$2.65 million from non-residential development. It is noted also that any exemptions or reductions in the charges would reduce this recovery further.

9. Considerations by Council – The background study represents the service needs arising from residential and non-residential growth over the forecast periods.

The following services are calculated based on an urban 13-year forecast:

- Stormwater Drainage and Control Services;
- Wastewater Services; and
- Water Services.

The following services are calculated based on a 13-year forecast:

- Services Related to a Highway;
- County Roads;
- Public Works Facilities, Fleet & Equipment;
- Police Services; and
- Fire Protection Services.

All other services are calculated based on a 10-year forecast. These include:

- Parking;
- Parkland Development;
- Recreation Facilities;
- Library Services; and
- Administration.

Council will consider the findings and recommendations provided in the report and, in conjunction with public input, approve such policies and rates it deems



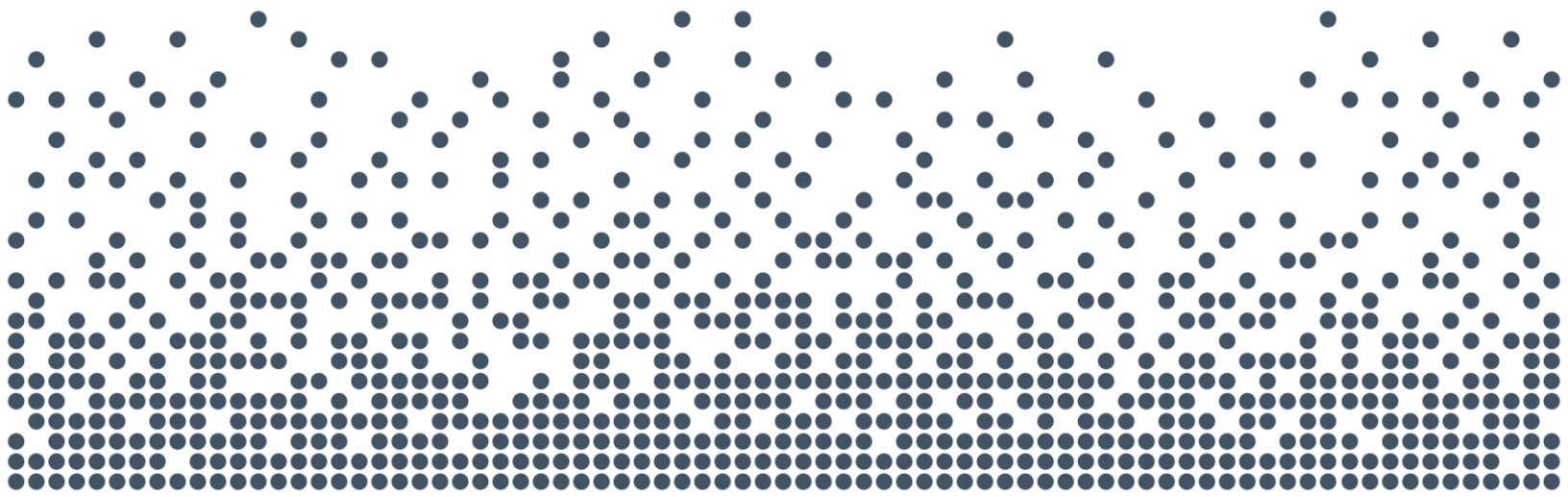
appropriate. These directions will refine the draft D.C. by-law which is appended in Appendix G. These decisions may include:

- adopting the charges and policies recommended herein;
- considering additional exemptions to the by-law; and
- considering reductions in the charge by class of development (obtained by removing certain services on which the charge is based and/or by a general reduction in the charge).



Table ES-1
Schedule of Development Charges

Service	RESIDENTIAL					NON-RESIDENTIAL
	Single and Semi-Detached Dwelling	Other Multiples	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Special Care/Special Dwelling Units	(per sq.ft. of Gross Floor Area)
City-wide Services:						
Services Related to a Highway	7,235	5,278	4,968	3,278	2,941	3.25
Parking Services	70	51	48	32	28	0.03
Fire Protection Services	590	430	405	267	240	0.27
Police Services	448	327	308	203	182	0.20
Outdoor Recreation Services	1,631	1,190	1,120	739	663	0.33
Administration	147	107	101	67	60	0.07
Total City-wide Services	10,121	7,383	6,950	4,586	4,114	4.15
Urban Services - All Other Urban Areas						
Stormwater Drainage and Control Services	578	422	397	262	235	0.31
Wastewater Services	7,398	5,397	5,080	3,352	3,007	3.60
Total Urban Services - All Other Urban Areas	7,976	5,819	5,477	3,614	3,242	3.91
Urban Services - Development Area 2						
Stormwater Drainage and Control Services	10,019	7,309	6,879	4,539	4,073	6.02
Wastewater Services	16,783	12,243	11,524	7,604	6,822	7.49
Water Services	595	434	409	270	242	0.27
Total Urban Services - Development Area 2	27,397	19,986	18,812	12,413	11,137	13.78
GRAND TOTAL RURAL AREA	10,121	7,383	6,950	4,586	4,114	4.15
GRAND TOTAL ALL OTHER URBAN AREAS	18,097	13,202	12,427	8,200	7,356	8.06
GRAND TOTAL DEVELOPMENT AREA 2	37,518	27,369	25,762	16,999	15,251	17.93



Report



Chapter 1

Introduction



1. Introduction

1.1 Purpose of this Document

This background study has been prepared pursuant to the requirements of the D.C.A. (s.10) and, accordingly, recommends new D.C.s and policies for the City of Sarnia.

The City retained Watson & Associates Economists Ltd. (Watson), to undertake the Development Charges (D.C.) study process throughout the latter half of 2018 and the first half of 2019. Watson worked with City staff in preparing the D.C. analysis and policy recommendations.

This D.C. background study, containing the proposed D.C. by-law, will be distributed to members of the public in order to provide interested parties with sufficient background information on the legislation, the study's recommendations and an outline of the basis for these recommendations.

This report has been prepared, in the first instance, to meet the statutory requirements applicable to the City's D.C. background study, as summarized in Chapter 4. It also addresses the requirement for "rules" (contained in Chapter 7) and the proposed by-law to be made available as part of the approval process (included as Appendix G).

In addition, the report is designed to set out sufficient background on the legislation (Chapter 4), Sarnia's current D.C. policies (Chapter 2) and the policies underlying the proposed by-law, to make the exercise understandable to those who are involved.

Finally, it addresses post-adoption implementation requirements (Chapter 8) which are critical to the successful application of the new policy.

The Chapters in the report are supported by Appendices containing the data required to explain and substantiate the calculation of the charge. A full discussion of the statutory requirements for the preparation of a background study and calculation of a D.C. is provided herein.



1.2 Summary of the Process

The public meeting required under Section 12 of the D.C.A., has been scheduled for April 15, 2019. Its purpose is to present the study to the public and to solicit public input. The meeting is also being held to answer any questions regarding the study's purpose, methodology and the proposed modifications to the City's D.C.s.

In accordance with the legislation, the background study and proposed D.C. by-law will be available for public review on March 25, 2019.

The process to be followed in finalizing the report and recommendations includes:

- consideration of responses received prior to, at, or immediately following the Public Meeting; and
- finalization of the report and Council consideration of the by-law subsequent to the public meeting.

Figure 1-1 outlines the proposed schedule to be followed with respect to the D.C. by-law adoption process.



Figure 1-1
Schedule of Key D.C. Process Dates for the City of Sarnia

1. Data collection, staff review, D.C. calculations and policy work	September 2018 to February 2019
2. Council Workshop	February 11, 2019
3. Stakeholder meeting	February 15, 2019
4. Public meeting advertisement placed in newspaper(s)	No later than March 25, 2019
5. Background study and proposed by-law available to public	March 25, 2019
6. Public meeting of Council	April 15, 2019
7. Council considers adoption of background study and passage of by-law	May 27, 2019
8. Newspaper notice given of by-law passage	By 20 days after passage
9. Last day for by-law appeal	40 days after passage
10. City makes pamphlet available (where by-law not appealed)	By 60 days after in force date



1.3 Changes to the D.C.A.: Bill 73

The City's current D.C. by-law (56 of 2014) came into effect in 2014. Since that time, changes were made to the D.C.A. With the amendment of the D.C.A. (as a result of Bill 73 and O.Reg. 428/15), there are a number of areas that must be addressed to ensure that the City is in compliance with the D.C.A., as amended. The following provides an explanation of the changes to the Act that affect the City's Background Study and how they have been dealt with to ensure compliance with the amended legislation.

1.3.1 Area Rating

Bill 73 has introduced two new sections where Council must consider the use of area-specific charges:

- 1) Section 2(9) of the Act now requires a municipality to implement area-specific D.C.s for either specific services which are prescribed and/or for specific municipalities which are to be regulated. (Note that at this time, no municipalities or services are prescribed by the Regulations.)
- 2) Section 10(2)c.1 of the D.C.A. requires that, "the development charges background study shall include consideration of the use of more than one development charge by-law to reflect different needs for services in different areas."

In regard to the first item, there are no services or specific municipalities identified in the regulations which must be area-rated. The second item requires Council to consider the use of area rating.

1.3.2 Asset Management Plan for New Infrastructure

The new legislation now requires that a D.C. background study must include an Asset Management Plan (s.10 (2) c.2). The asset management plan must deal with all assets that are proposed to be funded, in whole or in part, by D.C.s. The current regulations provide very extensive and specific requirements for the asset management plan related to transit services; however, they are silent with respect to how the asset management plan is to be provided for all other services. As part of any asset management plan, the examination should be consistent with the municipality's existing assumptions, approaches and policies on asset management planning. This



examination may include both qualitative and quantitative measures such as examining the annual future lifecycle contribution needs (discussed further in Appendix F of this report).

1.3.3 60-Day Circulation of D.C. Background Study

Previously the legislation required that a D.C. background study be made available to the public at least two weeks prior to the public meeting. The amended legislation now provides that the D.C. background study must be made available to the public (including posting on the municipal website) at least 60 days prior to passage of the D.C. by-law. No other changes were made to timing requirements for such things as notice of the public meeting and notice of by-law passage.

This D.C. study is being provided to the public on March 25, 2019 to ensure the new requirements for release of the study is met.

1.3.4 Timing of Collection of D.C.s

The D.C.A. has been refined by Bill 73 to require that D.C.s are collected at the time of the first building permit. For the majority of development, this will not impact the City's present process. There may be instances, however, where several building permits are to be issued and either the size of the development or the uses will not be definable at the time of the first building permit. In these instances, the City may enter into a delayed payment agreement in order to capture the full development.

1.3.5 Other Changes

It is also noted that a number of other changes were made through Bill 73 and O.Reg. 428/15 including changes to the way in which Transit D.C. service standards are calculated and the inclusion of Waste Diversion, however, these sections do not impact the City's D.C study as these services have not been incorporated into the calculations. An additional change through Bill 73 is the ability for collection of additional levies. This has been addressed through the development of the City's Local Service Policy (Appendix E).



Chapter 2

Current City of Sarnia Policy



2. Current City of Sarnia Policy

2.1 Schedule of Charges

On June 9, 2014, the City of Sarnia passed By-law 56 of 2014 under the D.C.A. This by-law imposes D.C.s for residential and non-residential uses. The table below provides the rates currently in effect, as at July 13, 2018.

Table 2-1
City of Sarnia
Current D.C. Rates

Service	Residential				Non-Residential
	Single & Semi Detached	Multiples	Apartments with >= 2 Bedrooms	Apartments with < 2 Bedrooms	per sq.ft.
Fire Protection Services	119	89	74	54	0.07
Administration	91	68	58	42	0.05
Roads	2,275	1,705	1,433	1,020	1.40
County Roads	171	129	108	76	0.10
Total Municipal-wide Services	2,656	1,991	1,673	1,192	1.62
Stormwater Drainage and Control Services	1,007	754	634	451	0.82
Wastewater Services	3,658	2,744	2,306	1,640	2.26
Water Services	652	490	411	293	0.40
Total Urban Services	5,317	3,988	3,351	2,384	3.48
Grand Total Urban Area	7,973	5,979	5,024	3,576	5.10

2.2 Services Covered

The following services are covered under By-law 56 of 2014:

- Roads & Related Services;
- County Roads;
- Fire Protection;
- Administration;
- Water Services;
- Wastewater Services; and
- Stormwater Services.

2.3 Timing of D.C. Calculation and Payment

D.C.s are payable at the time of building permit issuance and are collected by the City of Sarnia Building Department.



2.4 Indexing

Under the current by-law, rates were indexed on the anniversary date of the D.C. by-law (every June 9) by the percentage change recorded in the average annual Non-Residential Building Construction Price Index produced by Statistics Canada.

2.5 Redevelopment Allowance

As a result of the redevelopment of land, a building or structure existing on the same land within 5 years prior to the date of payment of D.C.s in regard to such redevelopment was, or is to be demolished, in whole or in part, or converted from one principal use to another principal use on the same land, in order to facilitate the redevelopment, the D.C.s otherwise payable with respect to such redevelopment shall be reduced by the following amounts:

- (a) in the case of a residential building or structure, or in the case of a mixed-use building or structure, the residential uses in the mixed-use building or structure, an amount calculated by multiplying the applicable D.C. by the number, according to type, of dwelling units that have been or will be demolished or converted to another principal use; and
- (b) in the case of a non-residential building or structure or, in the case of mixed-use building or structure, the non-residential uses in the mixed-use building or structure, an amount calculated by multiplying the applicable D.C. by the gross floor area that has been or will be demolished or converted to another principal use;

provided that such amounts shall not exceed, in total, the amount of the D.C.s otherwise payable with respect to the redevelopment.

2.6 Exemptions

The following non-statutory exemptions are provided under By-law 56 of 2014:

- Non-residential Farm Building;
- Use of land that does not involve a building structure;



- Sarnia 402 Business Park area;
- Sarnia Business and Research Park area;
- Western University Research and Development Park area; and
- Temporary buildings and structures, non-serviced industrial buildings and structures, and airport hangars.



Chapter 3

Anticipated Development in the City of Sarnia



3. Anticipated Development in the City of Sarnia

3.1 Requirement of the Act

Chapter 4 provides the methodology for calculating a D.C. as per the D.C.A. Figure 4-1 presents this methodology graphically. It is noted in the first box of the schematic that in order to determine the D.C. that may be imposed, it is a requirement of Section 5 (1) of the D.C.A. that “the anticipated amount, type and location of development, for which development charges can be imposed, must be estimated.”

The growth forecast contained in this chapter (with supplemental tables in Appendix A) provides for the anticipated development for which the City of Sarnia will be required to provide services, over a 10-year (early-2019 to early-2029) and a longer term (early-2019 to mid-2031) time horizon.

3.2 Basis of Population, Household and Non-Residential Gross Floor Area Forecast

The D.C. growth forecast has been derived from the Lambton County Official Plan, updated April 30, 2018. In compiling the growth forecast, the following additional information sources were consulted to help assess the residential and non-residential development potential for the City of Sarnia over the forecast period, including:

- The City of Sarnia Development Charges Background Study Draft, BMA Management Consulting Inc., May 16, 2014;
- The City of Sarnia Official Plan, Office Consolidation, updated July 2016;
- Lambton County population projections for the City of Sarnia, updated for 2016 Census, 2018;
- City of Sarnia Residential and Commercial Land Needs Assessment Update, Monteith Brown Planning Consultants, July 5, 2013;
- Residential and employment Census data;
- Historical residential and non-residential building permit data over the 2008 to 2018 period;
- Residential supply (in the development process) as provided by the City of Sarnia Community Development Services and Standards;



- Non-residential supply opportunities as provided by the City of Sarnia Community Development Services and Standards;
- Inventory and maps of vacant commercial, industrial and residential lands as provided by the City of Sarnia Community Development Services and Standards; and
- Discussions with City of Sarnia staff regarding anticipated residential and non-residential development in the City of Sarnia, specifically in Bright's Grove, Development Area 1, and Development Area 2.

3.3 Summary of Growth Forecast

A detailed analysis of the residential and non-residential growth forecasts is provided in Appendix A and the methodology employed is illustrated in Figure 3-1. The discussion provided herein summarizes the anticipated growth for the City and describes the basis for the forecast. The results of the residential growth forecast analysis are summarized in Table 3-1 below, and *Schedule 1* in Appendix A.

As identified in Table 3-1 and Appendix A, *Schedule 1*, the City's population is anticipated to reach approximately 72,120 by early-2029 and 72,300 by mid-2031, resulting in an increase of approximately 730 and 910 persons, respectively, over the 10-year and longer term (2019 to 2031) forecast periods.¹

Note that the residential D.C. calculations have been provided using growth on a single-detached equivalent unit basis. Single-detached equivalent units are calculated by weighting the medium and high-density unit forecasts by the persons-per-unit, relative to a single-detached unit, for each unit type. The corresponding forecast growth in single-detached equivalent units are provided herein and summarized in Appendix A *Schedule 2*.

¹ The population figures used in the calculation of the 2019 D.C. exclude the net Census undercount, which is estimated at approximately 4.1%.



Figure 3-1
Household Formation-based Population and Household Projection Model

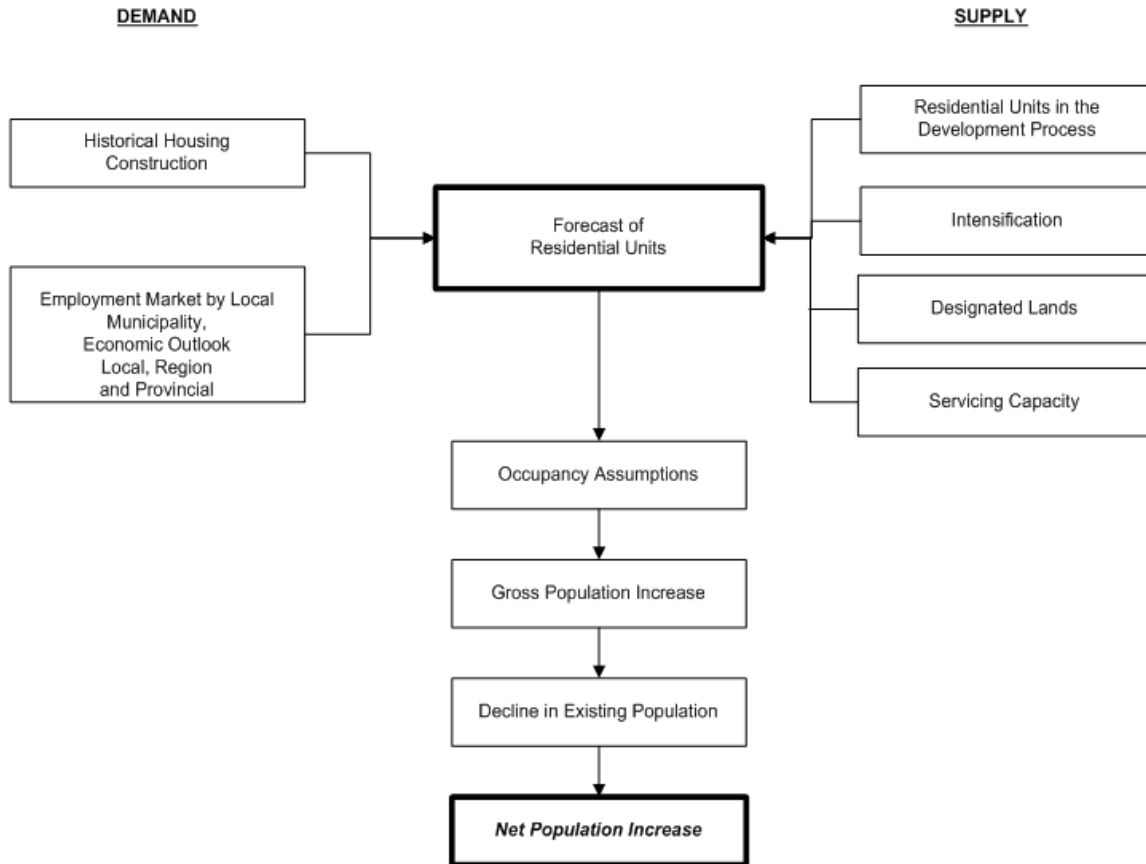




Table 3-1
City of Sarnia
Residential Growth Forecast Summary

	Year	Population (Including Census Undercount) ¹	Excluding Census Undercount			Housing Units				Person Per Unit (P.P.U.): Total Population/ Total Households	
			Population	Institutional Population	Population Excluding Institutional Population	Singles & Semi- Detached	Multiple Dwellings ²	Apartments ³	Other		Total Households
Historical	<i>Mid 2006</i>	74,350	71,419	1,369	70,050	21,385	2,545	6,020	165	30,115	2.372
	<i>Mid 2011</i>	75,330	72,366	1,361	71,005	22,265	2,548	6,395	168	31,376	2.306
	<i>Mid 2016</i>	74,530	71,594	1,224	70,370	22,730	2,565	6,535	105	31,935	2.242
Forecast	<i>Early 2019</i>	74,310	71,387	1,227	70,160	23,045	2,607	6,539	105	32,296	2.210
	<i>Early 2029</i>	75,080	72,121	1,240	70,881	24,434	2,760	6,724	105	34,023	2.120
	<i>Mid 2031</i>	75,260	72,300	1,242	71,058	24,757	2,803	6,794	105	34,460	2.098
Incremental	Mid 2006 - Mid 2011	980	947	-8	955	880	3	375	3	1,261	
	Mid 2011 - Mid 2016	-800	-772	-137	-635	465	17	140	-63	559	
	Mid 2016 - Early 2019	-220	-207	3	-210	315	42	4	0	361	
	Early 2019 - Early 2029	770	734	13	721	1,389	153	185	0	1,727	
	Early 2019 - Mid 2031	950	913	15	898	1,712	196	255	0	2,164	

Source: Derived from Lambton County Official Plan, updated April 30, 2018, Lambton County Population Projections for the City of Sarnia, updated for 2016 Census, and City of Sarnia Residential and Commercial Land Needs Assessment Update by Monteith Brown Planning Consultants, July 5, 2013, by Watson & Associates Economists Ltd.

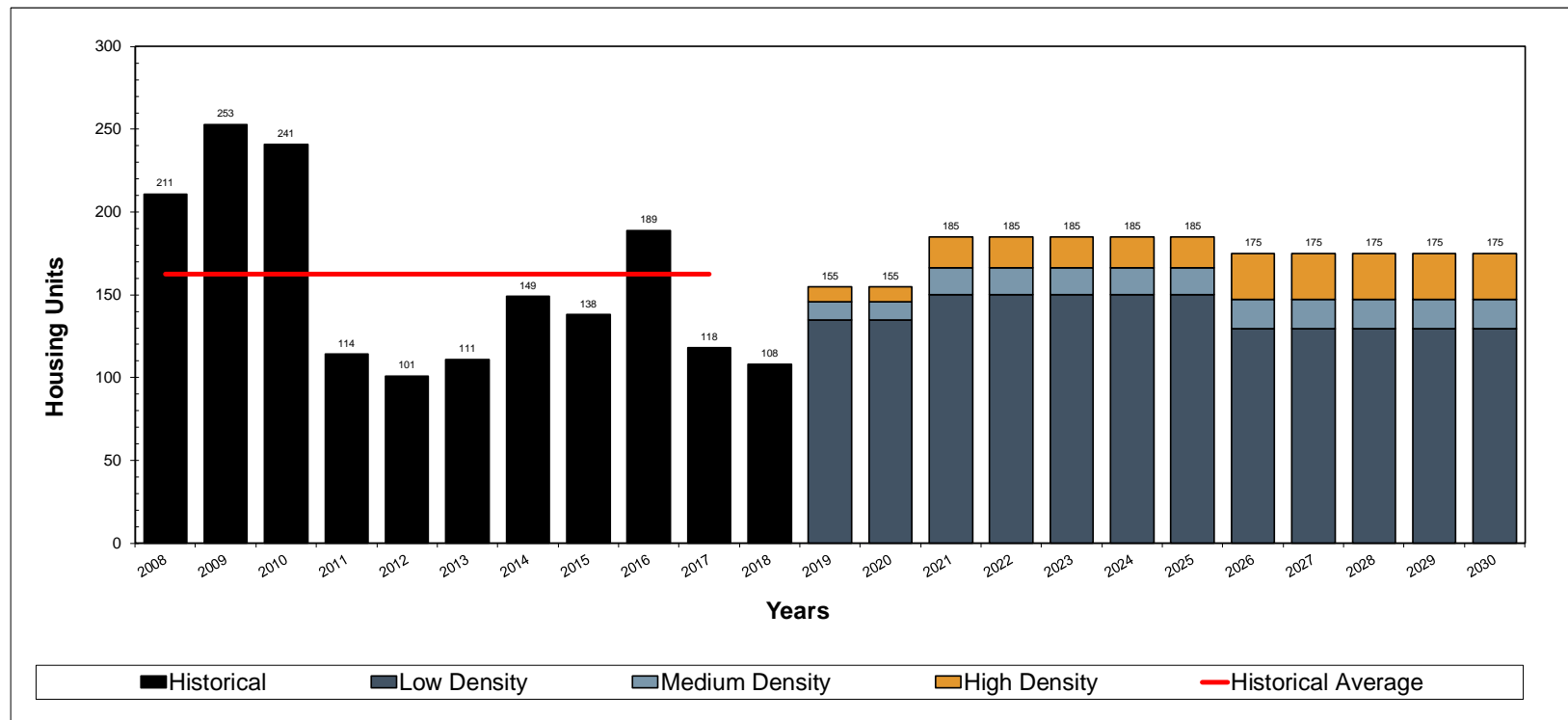
¹ Census undercount estimated at approximately 4.1%. Note: Population including the undercount has been rounded.

² Includes townhouses and apartments in duplexes.

³ Includes bachelor, 1-bedroom and 2-bedroom+ apartments.



Figure 3-2
City of Sarnia
Annual Housing Forecast



Source: Historical housing activity derived from City of Sarnia Planning and Building Department permit data, 2008-2017, and 2018 estimated from monthly building permit data.

1. Growth forecast represents calendar year.



1. Unit Mix (Appendix A – Schedules 1, 6 and 7)

- The unit mix for the City was derived from a detailed review of historical development activity (as per Schedule 7), as well as active residential development applications (as per Schedule 6) and discussions with City staff regarding anticipated development trends for the City, and in particular development proposed and planned for Bright's Grove, Development Area 1, and Development Area 2.
- Based on the above indicators, the 2019 to 2031 household growth forecast is comprised of a unit mix of 79% low density (single detached and semi-detached), 9% medium density (multiples except apartments) and 12% high density (bachelor, 1-bedroom and 2-bedroom apartments).

2. Geographic Location of Residential Development (Appendix A – Schedule 2)

- Schedule 2 summarizes the anticipated amount, type and location of development for the City of Sarnia by settlement area and remaining urban area which are fully serviced, suburban area which is partially serviced with full water and partial stormwater, and the rural area.
- In accordance with forecast demand and available land supply, the percentage of forecast housing growth between 2019 and 2031 by development location is summarized below.



Development Location	Percentage of Housing Growth, 2019 to 2031
<i>Urban</i>	
Bright's Grove	4%
Development Area 1	37%
Development Area 2	40%
Remaining Urban	16%
Urban Total	97%
<i>Suburban</i>	
Suburban Total	2%
<i>Rural</i>	
Rural Total	1%
City Total	100%

3. Planning Period

- Short and longer-term time horizons are required for the D.C. process. The D.C.A. limits the planning horizon for certain services, such as parks, recreation and libraries, to a 10-year planning horizon. Services related to a highway, public works, fire, police, stormwater, water and wastewater services can utilize a longer planning period.

4. Population in New Units (Appendix A - Schedules 3, 4 and 5)

- The number of housing units to be constructed in the City of Sarnia during the short- and long-term periods is presented on Figure 3-2. Over the 2019 to 2031 forecast period, the City is anticipated to average approximately 166 new housing units per year.



- The institutional population¹ is anticipated to grow by 15 persons between 2019 to 2031.
- Population in new units is derived from Schedules 3, 4, and 5, which incorporate historical development activity, anticipated units (see unit mix discussion) and average persons per unit (P.P.U.) by dwelling type for new units.
- Schedules 8a and 8b summarize the P.P.U. for the new housing units by age and type of dwelling based on a 2016 custom Census data. The total calculated P.P.U. for all density types has been adjusted to account for the P.P.U. trends which has been recently experienced in both new and older units. Forecasted 15-year average P.P.U.s by dwelling type are as follows:
 - Low density: 2.706
 - Medium density: 1.974
 - High density²: 1.647

5. Existing Units and Population Change (Appendix A - Schedules 3, 4 and 5)

- Existing households for early-2019 are based on the 2016 Census households, plus estimated residential units constructed between mid-2016 and 2019 assuming a 6-month lag between construction and occupancy (see Schedule 3).
- The decline in average occupancy levels for existing housing units is calculated in Schedules 3 through 5, by aging the existing population over the forecast period. The forecast population decline in existing households over the 2019 to 2031 forecast period is approximately 4,545.

6. Anticipated Growth in Single-detached Equivalent Units (Appendix A – Schedule 2)

- The City's anticipated 10-year growth in single-detached equivalents is 1,613 single-detached equivalent units.

¹ Institutional includes special care facilities such as nursing home or residences for senior citizens. A P.P.U. of 1.100 depicts 1-bedroom and 2 or more-bedroom units in these special care facilities.

² Includes bachelor, 1-bedroom and 2 or more-bedroom apartments



- The City's anticipated growth to 2031 in single-detached units is as follows:
 - City-wide – 2,011 single-detached equivalent units
 - Development Area 2 – 867 single-detached equivalent units
 - All Other Urban Areas – 1,075 single-detached equivalent units

7. Employment (Appendix A, Schedules 10a, 10b, 10c, 11 and 12)

- Employment projections are largely based on the activity rate method, which is defined as the number of jobs in a municipality divided by the number of residents. Key employment sectors include primary, industrial, commercial/ population-related, institutional, and work at home, which are considered individually below.
- 2016 employment data¹ (place of work) for the City of Sarnia is outlined in Schedule 10a. The 2016 employment base is comprised of the following sectors:
 - 500 primary (< 2%);
 - 1,355 work at home employment (5%);
 - 6,895 industrial (24%);
 - 12,535 commercial/population related (43%); and
 - 7,765 institutional (27%).
- The 2016 employment by usual place of work, including work at home, is estimated at 29,050. An additional 3,055 employees have been identified for the City in 2016 that have no fixed place of work (N.F.P.O.W.).² The 2016 employment base, including N.F.P.O.W., totals approximately 32,105.
- Total employment, including work at home and N.F.P.O.W., for the City of Sarnia is anticipated to reach approximately 33,040 by early-2029 and

¹ 2016 employment is based on Statistics Canada 2016 Place of Work Employment dataset by Watson & Associates Economists Ltd.

² Statistics Canada defines "No Fixed Place of Work" (N.F.P.O.W.) employees as, "persons who do not go from home to the same work place location at the beginning of each shift. Such persons include building and landscape contractors, travelling salespersons, independent truck drivers, etc."



33,160 by mid-2031. This represents an employment increase of 640 for the 10-year forecast period and 760 for the 2019 to 2031 forecast period.

- Schedule 10b, Appendix A, summarizes the employment forecast, excluding work at home employment and N.F.P.O.W. employment, which is the basis for the D.C. employment forecast. The impact on municipal services from work at home employees has already been included in the population forecast. The need for municipal services related to N.F.P.O.W. employees has largely been included in the employment forecast by usual place of work (i.e. employment and gross floor area generated from N.F.P.O.W. construction employment). Furthermore, since these employees have no fixed work address, they cannot be captured in the non-residential gross floor area (G.F.A.) calculation.
- Total employment for the City of Sarnia (excluding work at home and N.F.P.O.W. employment) is anticipated to reach approximately 28,500 by early-2029 and 28,590 by mid-2031. This represents an employment increase of 530 and 630 over the 10-year and longer-term forecast periods, respectively.

8. Non-Residential Sq.ft. Estimates (Gross Floor Area (G.F.A.), Appendix A, Schedule 9b)

- Square footage estimates were calculated in Schedule 10b based on the following employee density assumptions:
 - 1,100 sq.ft. per employee for industrial;
 - 450 sq.ft. per employee for commercial/population-related; and
 - 700 sq.ft. per employee for institutional employment.
- The City-wide incremental Gross Floor Area (G.F.A.) increase is anticipated to be 421,900 sq.ft. over the 10-year forecast period and 496,500 sq.ft. over the 2019 to 2031 forecast period.
- In terms of percentage growth, the 2019 to 2031 incremental G.F.A. forecast by sector is broken down as follows:
 1. industrial – 67%;
 2. commercial/population-related – 22%; and
 3. institutional – 11%.



9. Geographic Location of Non-Residential Development (Appendix A, Schedule 10c)

- Schedule 10c summarizes the anticipated amount, type and location of non-residential development for City of Sarnia by area.
- In accordance with forecast demand and available land supply, the percentage of forecast total non-residential growth between 2019 and 2031 by development location is summarized below.

Development Location	Percentage of Non-Residential G.F.A., 2019 to 2031
<i>Urban</i>	
Bright's Grove	0%
Development Area 1	3%
Development Area 2	12%
Remaining Urban	69%
Urban Total	84%
<i>Suburban</i>	
Suburban Total	0%
<i>Rural</i>	
Rural Total	16%
City Total	100.0%



Chapter 4

The Approach to the Calculation of the Charge



4. The Approach to the Calculation of the Charge

4.1 Introduction

This chapter addresses the requirements of s.s.5(1) of the D.C.A. with respect to the establishment of the need for service which underpins the D.C. calculation. These requirements are illustrated schematically in Figure 4-1.

4.2 Services Potentially Involved

Table 4-1 lists the full range of municipal service categories which are provided within the City.

A number of these services are defined in s.s.2(4) of the D.C.A. as being ineligible for inclusion in D.C.s. These are shown as “ineligible” on Table 4-1. Two ineligible costs defined in s.s.5(3) of the D.C.A. are “computer equipment” and “rolling stock with an estimated useful life of (less than) seven years...” In addition, local roads are covered separately under subdivision agreements and related means (as are other local services). Services which are potentially eligible for inclusion in the City’s D.C. are indicated with a “Yes.”

4.3 Increase in the Need for Service

The D.C. calculation commences with an estimate of “the increase in the need for service attributable to the anticipated development,” for each service to be covered by the by-law. There must be some form of link or attribution between the anticipated development and the estimated increase in the need for service. While the need could conceivably be expressed generally in terms of units of capacity, s.s.5(1)3, which requires that City Council indicate that it intends to ensure that such an increase in need will be met, suggests that a project-specific expression of need would be most appropriate.



Figure 4-1
The Process of Calculating a Development Charge under the Act
that must be followed

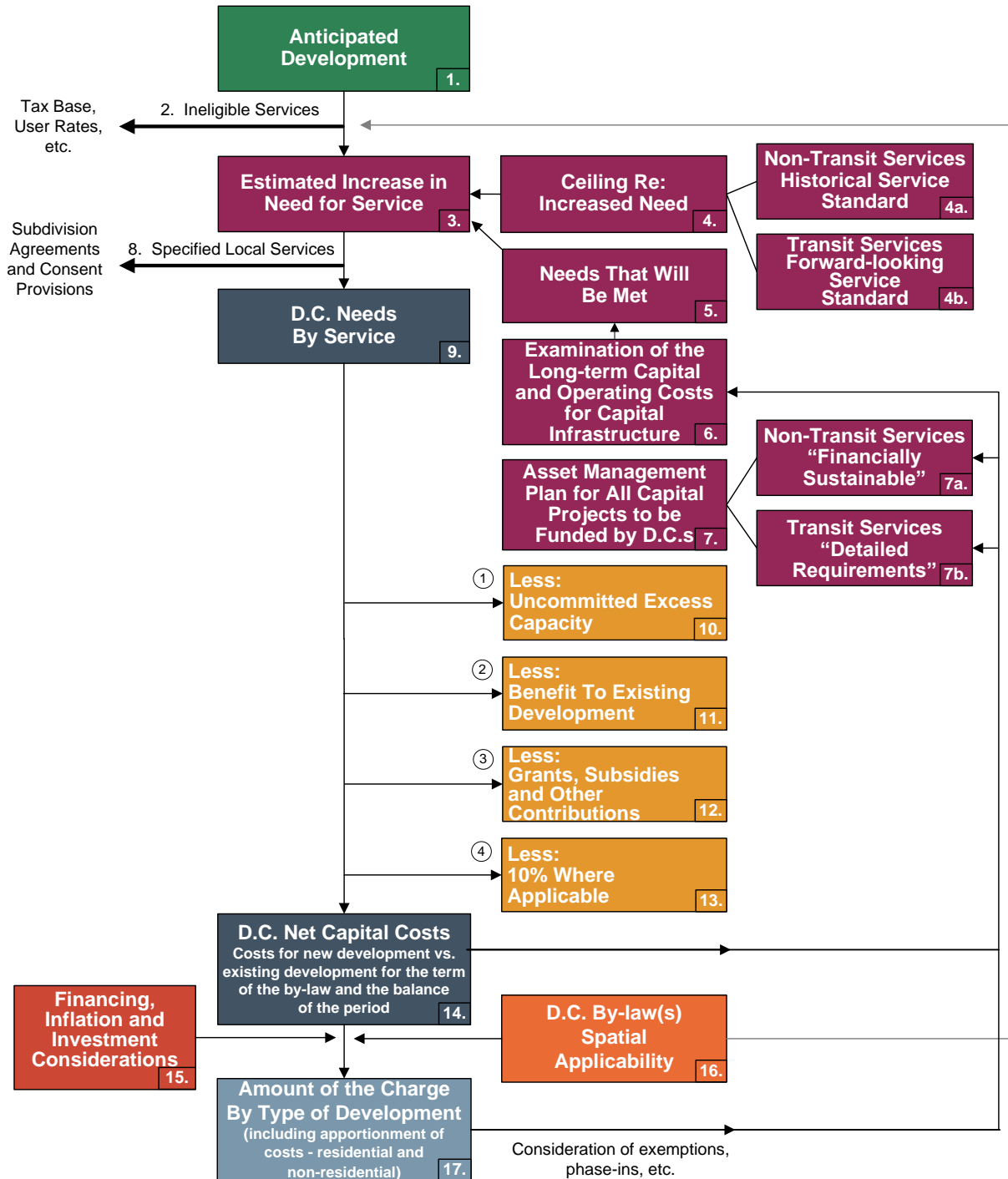




Table 4-1
Categories of Municipal Services to be Addressed as Part of the Calculation

Eligibility for Inclusion in the D.C. Calculation	Description
Yes	Municipality provides the service – service has been included in the D.C. calculation.
No	Municipality provides the service – service has not been included in the D.C. calculation.
n/a	Municipality does not provide the service.
Ineligible	Service is ineligible for inclusion in the D.C. calculation.

Categories of Municipal Services	Eligibility for Inclusion in the D.C. Calculation	Service Components	Maximum Potential D.C. Recovery %
1. Services Related to a Highway	Yes	1.1 Arterial roads	100
	Yes	1.2 Collector roads	100
	Yes	1.3 Bridges, Culverts and Roundabouts	100
	No	1.4 Local municipal roads	0
	Yes	1.5 Traffic signals	100
	Yes	1.6 Sidewalks and streetlights	100
	Yes	1.7 Active Transportation	100
2. Other Transportation Services	No	2.1 Transit vehicles ¹ & facilities	100
	No	2.2 Other transit infrastructure	100
	Yes	2.3 Municipal parking spaces - indoor	90
	Yes	2.4 Municipal parking spaces - outdoor	90
	Yes	2.5 Works Yards	100
	Yes	2.6 Rolling stock ¹	100
	n/a	2.7 Ferries	90
	No	2.8 Airport	90

¹with 7+ year life time

*same percentage as service component to which it pertains
computer equipment excluded throughout



Categories of Municipal Services	Eligibility for Inclusion in the D.C. Calculation	Service Components	Maximum Potential D.C. Recovery %
3. Stormwater Drainage and Control Services	Yes	3.1 Main channels and drainage trunks	100
	Yes	3.2 Channel connections	100
	Yes	3.3 Retention/detention ponds	100
4. Fire Protection Services	Yes	4.1 Fire stations	100
	Yes	4.2 Fire pumpers, aerials and rescue vehicles ¹	100
	Yes	4.3 Small equipment and gear	100
5. Outdoor Recreation Services (i.e. Parks and Open Space)	Ineligible	5.1 Acquisition of land for parks, woodlots and E.S.A.s	0
	Yes	5.2 Development of area municipal parks	90
	Yes	5.3 Development of district parks	90
	Yes	5.4 Development of municipal-wide parks	90
	Yes	5.5 Development of special purpose parks	90
	Yes	5.6 Parks rolling stock ¹ and yards	90
6. Indoor Recreation Services	Yes	6.1 Arenas, indoor pools, fitness facilities, community centres, etc. (including land)	90
	Yes	6.2 Recreation vehicles and equipment ¹	90
7. Library Services	Yes	7.1 Public library space (incl. furniture and equipment)	90
	n/a	7.2 Library vehicles ¹	90
	Yes	7.3 Library materials	90
8. Electrical Power Services	Ineligible	8.1 Electrical substations	0
	Ineligible	8.2 Electrical distribution system	0
	Ineligible	8.3 Electrical system rolling stock	0

¹with 7+ year life time



Categories of Municipal Services	Eligibility for Inclusion in the D.C. Calculation	Service Components	Maximum Potential D.C. Recovery %
9. Provision of Cultural, Entertainment and Tourism Facilities and Convention Centres	Ineligible	9.1 Cultural space (e.g. art galleries, museums and theatres)	0
	Ineligible	9.2 Tourism facilities and convention centres	0
10. Wastewater Services	Yes	10.1 Treatment plants	100
	Yes	10.2 Sewage trunks	100
	n/a	10.3 Local systems	0
	Yes	10.4 Vehicles and equipment ¹	100
11. Water Supply Services	Yes	11.1 Treatment plants	100
	Yes	11.2 Distribution systems	100
	n/a	11.3 Local systems	0
	Yes	11.4 Vehicles and equipment ¹	100
12. Waste Management Services	Ineligible	12.1 Landfill collection, transfer vehicles and equipment	0
	Ineligible	12.2 Landfills and other disposal facilities	0
	No	12.3 Waste diversion facilities	90
	No	12.4 Waste diversion vehicles and equipment ¹	90
13. Police Services	Yes	13.1 Police detachments	100
	Yes	13.2 Police rolling stock ¹	100
	Yes	13.3 Small equipment and gear	100
14. Homes for the Aged	No	14.1 Homes for the aged space	90
	No	14.2 Vehicles ¹	90
15. Child Care	No	15.1 Child care space	90
	No	15.2 Vehicles ¹	90
16. Health	No	16.1 Health department space	90
	No	16.2 Health department vehicles ¹	90
17. Social Housing	n/a	17.1 Social Housing space	90
18. Provincial Offences Act (P.O.A.)	n/a	18.1 P.O.A. space	90
19. Social Services	Yes	19.1 Social service space	90

¹with 7+ year life time



4.5 Capital Forecast

Paragraph 7 of s.s.5(1) of the D.C.A. requires that “the capital costs necessary to provide the increased services must be estimated.” The Act goes on to require two potential cost reductions and the Regulation sets out the way in which such costs are to be presented. These requirements are outlined below.

These estimates involve capital costing of the increased services discussed above. This entails costing actual projects or the provision of service units, depending on how each service has been addressed.

The capital costs include:

- a) costs to acquire land or an interest therein (including a leasehold interest);
- b) costs to improve land;
- c) costs to acquire, lease, construct or improve buildings and structures;
- d) costs to acquire, lease or improve facilities, including rolling stock (with a useful life of 7 or more years), furniture and equipment (other than computer equipment), materials acquired for library circulation, reference or information purposes;
- e) interest on money borrowed to pay for the above-referenced costs;
- f) costs to undertake studies in connection with the above-referenced matters; and
- g) costs of the D.C. background study.

In order for an increase in need for service to be included in the D.C. calculation, City Council must indicate “...that it intends to ensure that such an increase in need will be met” (s.s.5 (1)3). This can be done if the increase in service forms part of a Council-approved Official Plan, capital forecast or similar expression of the intention of Council (O.Reg. 82/98 s.3). The capital program contained herein reflects the City’s approved and proposed capital budgets and master servicing/needs studies.

4.6 Treatment of Credits

Section 8, paragraph 5, of O.Reg. 82/98 indicates that a D.C. background study must set out “the estimated value of credits that are being carried forward relating to the service.” Subsection 17, paragraph 4, of the same Regulation indicates that “...the value of the credit cannot be recovered from future D.C.s,” if the credit pertains to an



ineligible service. This implies that a credit for eligible services can be recovered from future D.C.s. As a result, this provision should be made in the calculation, in order to avoid a funding shortfall with respect to future service needs. There are no outstanding credit obligations for inclusion in the D.C. calculations at this time.

4.7 Existing Reserve Funds

Section 35 of the D.C.A. states that:

“The money in a reserve fund established for a service may be spent only for capital costs determined under paragraphs 2 to 8 of subsection 5(1).”

There is no explicit requirement under the D.C.A. calculation method set out in s.s.5(1) to net the outstanding reserve fund balance as part of making the D.C. calculation; however, s.35 does restrict the way in which the funds are used in future.

For services which are subject to a per capita based, service level “cap,” the reserve fund balance should be applied against the development-related costs for which the charge was imposed once the project is constructed (i.e. the needs of recent growth). This cost component is distinct from the development-related costs for the next 10-year period, which underlie the D.C. calculation herein.

The alternative would involve the City spending all reserve fund monies prior to renewing each by-law, which would not be a sound basis for capital budgeting. Thus, the City will use these reserve funds for the City’s cost share of applicable development-related projects, which are required but have not yet been undertaken, as a way of directing the funds to the benefit of the development which contributed them (rather than to future development, which will generate the need for additional facilities directly proportionate to future growth).

The City’s D.C. Reserve Fund Balances at December 31, 2018 (adjusted) are shown below:



Service	Balance on Dec. 31, 2018	Commitments	Adjusted Balance on Dec. 31, 2018
Services Related to a Highway	\$2,187,250	(3,752)	\$2,183,498
Public Works	\$120,099	-	\$120,099
County Roads	\$878,820	-	\$878,820
Transit	\$253,751	-	\$253,751
Parking	\$8,166	-	\$8,166
Fire Protection Services	\$429,521	-	\$429,521
Police Services	\$0	-	\$0
Outdoor Recreation Services	\$1,816,442	-	\$1,816,442
Indoor Recreation Services	\$214,420	-	\$214,420
Library Services	\$134,617	(134,617)	\$0
Administration	\$60,429	(13,129)	\$47,300
Stormwater Drainage and Control Services	\$765,615	(391,201)	\$374,414
Wastewater Services	\$4,849,360	(2,000,000)	\$2,849,360
Water Services	\$956,581	-	\$956,581
Total	\$12,675,071	(2,542,699)	\$10,132,372

4.8 Deductions

The D.C.A. potentially requires that five deductions be made to the increase in the need for service. These relate to:

- the level of service ceiling;
- uncommitted excess capacity;
- benefit to existing development;
- anticipated grants, subsidies and other contributions; and
- 10% reduction for certain services.

The requirements behind each of these reductions are addressed as follows:

4.8.1 Reduction Required by Level of Service Ceiling

This is designed to ensure that the increase in need included in 4.3 does "...not include an increase that would result in the level of service (for the additional development increment) exceeding the average level of the service provided in the Municipality over the 10-year period immediately preceding the preparation of the background study..."

O.Reg. 82.98 (s.4) goes further to indicate that "...both the quantity and quality of a service shall be taken into account in determining the level of service and the average level of service."



In many cases, this can be done by establishing a quantity measure in terms of units as floor area, land area or road length per single-detached equivalent unit and a quality measure, in terms of the average cost of providing such units based on replacement costs, engineering standards or recognized performance measurement systems, depending on circumstances. When the quantity and quality factor are multiplied together, they produce a measure of the level of service, which meets the requirements of the Act, i.e. cost per unit.

With respect to transit services, the changes to the Act as a result of Bill 73 have provided for an alternative method for calculating the services standard ceiling. Transit services must now utilize a forward-looking service standard analysis, described later in this section.

The average service level calculation sheets for each service component in the D.C. calculation are set out in Appendix B.

Note that most often, the level of service calculations are provided on a per capita basis. However, the City of Sarnia is faced with a unique situation where the population increases are anticipated to be minimal, whereas there will be significant growth in the number of housing units constructed. This is partially a result of the natural decline in the population due to family sizes decreasing over time and shifting demographic trends. Given this, many services provided by the City will be still be impacted due to the growth in the number of units. Services such as services related to a highway, fire, police, etc. will still require infrastructure to be built as a result of the new homes. Therefore, when estimating the historical service level, the quantity and combined quantity/quality measures were based on the number of single-detached equivalent units and the D.C. eligible amount was calculated using the forecasted single-detached equivalents¹. As a result, indoor recreation and library services were not included in the D.C. calculations as the need for these services are mainly driven by population growth.

¹ The forecasted single-detached equivalent units used for the service level calculations are based on the gross amount forecasted, less a decline factor (equal to the percentage decline in population), to arrive at a net number of single-detached units.



4.8.2 Reduction for Uncommitted Excess Capacity

Paragraph 5 of s.s.5(1) requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the City’s “excess capacity,” other than excess capacity which is “committed.”

“Excess capacity” is undefined, but in this case must be able to meet some or all of the increase in need for service, in order to potentially represent a deduction. The deduction of uncommitted excess capacity from the future increase in the need for service would normally occur as part of the conceptual planning and feasibility work associated with justifying and sizing new facilities, e.g. if a road widening to accommodate increased traffic is not required because sufficient excess capacity is already available, then widening would not be included as an increase in need, in the first instance.

4.8.3 Reduction for Benefit to Existing Development

Section 5(1)6 of the D.C.A. provides that, “The increase in the need for service must be reduced by the extent to which an increase in service to meet the increased need would benefit existing development.” The general guidelines used to consider benefit to existing development included the following:

- the repair or unexpanded replacement of existing assets that are in need of repair;
- an increase in average service level of quantity or quality (compare water as an example);
- the elimination of a chronic servicing problem not created by growth; and
- providing services where none previously existed (generally considered for water or wastewater services).

This step involves a further reduction in the need, by the extent to which such an increase in service would benefit existing development. The level of services cap in 4.4 is related but is not the identical requirement. Sanitary, storm and water trunks are highly localized to growth areas and can be more readily allocated in this regard than other services such as services related to a highway, which do not have a fixed service area.



Where existing development has an adequate service level which will not be tangibly increased by an increase in service, no benefit would appear to be involved. For example, where expanding existing library facilities simply replicates what existing residents are receiving, they receive very limited (or no) benefit as a result. On the other hand, where a clear existing service problem is to be remedied, a deduction should be made accordingly.

In the case of services such as recreation facilities, community parks, libraries, etc., the service is typically provided on a City-wide system basis. For example, facilities of the same type may provide different services (i.e. leisure pool vs. competitive pool), different programs (i.e. hockey vs. figure skating) and different time availability for the same service (i.e. leisure skating available on Wednesday in one arena and Thursday in another). As a result, residents will travel to different facilities to access the services they want at the times they wish to use them, and facility location generally does not correlate directly with residence location. Even where it does, displacing users from an existing facility to a new facility frees up capacity for use by others and generally results in only a very limited benefit to existing development. Further, where an increase in demand is not met for a number of years, a negative service impact to existing development is involved for a portion of the planning period.

4.8.4 Reduction for Anticipated Grants, Subsidies and Other Contributions

This step involves reducing the capital costs necessary to provide the increased services by capital grants, subsidies and other contributions (including direct developer contributions required due to the local service policy) made or anticipated by Council and in accordance with various rules such as the attribution between the share related to new vs. existing development. That is, some grants and contributions may not specifically be applicable to growth or where Council targets fundraising as a measure to offset impacts on taxes (O.Reg. 82.98 s.6).

4.8.5 The 10% Reduction

Paragraph 8 of s.s. (1) of the D.C.A. requires that, “the capital costs must be reduced by 10 percent.” This paragraph does not apply to water supply services, wastewater services, stormwater drainage and control services, services related to a highway, police and fire protection services. The primary services to which the 10% reduction



does apply include services such as parks, recreation, libraries, childcare/social services, the Provincial Offences Act, ambulance, homes for the aged, and health.

The 10% is to be netted from the capital costs necessary to provide the increased services, once the other deductions have been made, as per the infrastructure costs sheets in Chapter 5.

4.9 Municipal-wide vs. Area Rating

This step involves determining whether all of the subject costs are to be recovered on a uniform municipal-wide basis or whether some or all are to be recovered on an area-specific basis. Under the amended D.C.A., it is now mandatory to “consider” area-rating of services (providing charges for specific areas and services), however, it is not mandatory to implement area-rating. Further discussion is provided in section 7.4.4.

4.10 Allocation of Development

This step involves relating the costs involved to anticipated development for each period under consideration and using allocations between residential and non-residential development and between one type of development and another, to arrive at a schedule of charges. Further discussion is detailed throughout Chapter 5 and summarized in section 7.3.2.

4.11 Asset Management

The new legislation now requires that a D.C. Background Study must include an Asset Management Plan (s. 10 (2) c.2). The asset management plan must deal with all assets that are proposed to be funded, in whole or in part, by D.C.s. The current regulations provide very extensive and specific requirements for the asset management plan related to transit services (as noted in the subsequent subsection); however, they are silent with respect to how the asset management plan is to be provided for all other services. As part of any asset management plan, the examination should be consistent with the municipality’s existing assumptions, approaches and policies on the asset management planning. This examination has been included in Appendix F.



4.12 Transit

The most significant changes to the Act relate to the transit service. These changes relate to four areas of the calculations, as follows:

- A. Transit no longer requires the statutory 10% mandatory deduction from the net capital cost (section 5.2(i) of the D.C.A.).
- B. The Background Study requires the following in regard to transit costs (as per section 8(2) of the Regulations):
 - 1. The calculations that were used to prepare the estimate for the planned level of service for the transit services, as mentioned in subsection 5.2(3) of the Act.
 - 2. An identification of the portion of the total estimated capital cost relating to the transit services that would benefit,
 - i. the anticipated development over the 10-year period immediately following the preparation of the background study, or
 - ii. the anticipated development after the 10-year period immediately following the preparation of the background study.
 - 3. An identification of the anticipated excess capacity that would exist at the end of the 10-year period immediately following the preparation of the background study.
 - 4. An assessment of ridership forecasts for all modes of transit services proposed to be funded by the development charge over the 10-year period immediately following the preparation of the background study, categorized by development types, and whether the forecasted ridership will be from existing or planned development.
 - 5. An assessment of the ridership capacity for all modes of transit services proposed to be funded by the development charge over the 10-year period immediately following the preparation of the background study.
- C. A new forward-looking service standard (as per 6.1(2) of the Regulations):



1. The service is a discrete service.
 2. No portion of the service that is intended to benefit anticipated development after the 10-year period immediately following the preparation of the background study may be included in the estimate.
 3. No portion of the service that is anticipated to exist as excess capacity at the end of the 10-year period immediately following the preparation of the background study may be included in the estimate.
- D. A very detailed asset management strategy and reporting requirements (section 6.1(3) of the Regulation) that includes lifecycle costs, action plans that will enable the assets to be sustainable, summary of how to achieve the proposed level of service, discussion on procurement measures and risk.

The City has not provided for capital needs relating to transit. As a result, the above calculations and reporting requirements are not required.



Chapter 5

D.C.-Eligible Cost Analysis by Service



5. D.C.-Eligible Cost Analysis by Service

5.1 Introduction

This chapter outlines the basis for calculating eligible costs for the D.C.s to be applied on a uniform basis for City-wide services and on an urban area basis for water, wastewater, and stormwater services. In each case, the required calculation process set out in s.5(1) paragraphs 2 to 8 in the D.C.A. and described in Chapter 4, was followed in determining D.C. eligible costs.

The nature of the capital projects and timing identified in the Chapter reflects Council's current intention. However, over time, City projects and Council priorities change and accordingly, Council's intentions may alter and different capital projects (and timing) may be required to meet the need for services required by new growth.

5.2 Service Levels and 10-Year Capital Costs for D.C. Calculation

This section evaluates the development-related capital requirements for all of the "softer" services over a 10-year planning period. Each service component is evaluated on two format sheets: the average historical 10-year level of service calculation (see Appendix B), which "caps" the D.C. amounts; and, the infrastructure cost calculation, which determines the potential D.C. recoverable cost.

5.2.1 *Parking*

The City currently provides parking services from 795 parking spaces and pay/display machines. Over the previous ten years, the City has provided an average level of service of 26.8 spaces per 1,000 single-detached equivalent units. This equates to an average level of investment of \$98 per single-detached equivalent unit which provides \$140,138 in D.C. eligible funding over the 10-year forecast period.

The City is currently reviewing their parking needs to accommodate growth within the municipality. As there has been no specific direction from Council on parking space projects, a provision has been identified in the amount of \$140,000 to address growth-



related needs in the future. Note that this amount is in addition to the reserve fund balance of \$8,166. After the 10% mandatory deduction, the amount included in the D.C. calculations is \$126,000.

The growth-related costs for parking have been allocated 89% residential and 11% non-residential based on the incremental growth in population to employment, for the 10-year forecast period.



5.2.2 Outdoor Recreation Services

The City currently has 957 acres of parkland within its jurisdiction. This parkland consists of various sized Regional, City-wide, Neighbourhood, and Community parks as well as natural open space. The City has sustained the current level of service over the previous 10-year period (2009-2018), with an average of 32.6 acres of parkland and 96.9 parkland amenities items per 1,000 single-detached equivalent units. The City also provides 1.49 linear metres of trails per single-detached equivalent unit. Including parkland development, parkland amenities (e.g. ball diamonds, playground equipment, soccer fields, etc.), and park trails, the level of service provided is approximately \$3,236 per single-detached equivalent unit. When applied over the forecast period, this average level of service translates into a D.C.-eligible amount of \$4,630,702.

Based on the projected growth over the 10-year forecast period, the City has identified approximately \$6.44 million in future growth capital costs for parkland development. These projects include, the development of additional parks including amenities and trails. A reduction for benefit to existing development of approximately \$1.17 million has been made along with a deduction to recognize the \$1,816,442 balance in the reserve fund. Further deductions have been made in the amount of \$460,000 for other contributions the City anticipates receiving. The net growth capital cost after the mandatory 10% deduction is \$2,510,308. This amount has been included in the D.C. calculations.

The City currently utilizes 113 parks vehicles and equipment to service the residents. Over the past 10-years, the average level of service has been 3.9 vehicles per 1,000 single-detached equivalent units or an investment of \$201 per single-detached equivalent unit. This results in a D.C. eligible amount of \$288,132 over the 10-year forecast period.

The City has included a provision for additional parks vehicles and equipment to service growth-related needs over the forecast period. After the 10% mandatory deduction, the amount included in the D.C. calculations is \$259,200.

As the predominant users of outdoor recreation tend to be residents of the City, the forecast growth-related costs have been allocated 95% to residential and 5% to non-residential.



Infrastructure Costs Included in the Development Charges Calculation

City of Sarnia
Service: Parkland Development

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:		Potential D.C. Recoverable Cost	
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share
2019-2028											95%	5%	
1	Cricket Club Picnic Shelter	2019	35,000	-		35,000	17,500	10,000	7,500	750	6,750	6,413	338
2	Sports Field Development & Improvements (bleachers/lighting/field development/dugouts)	2019-2024	800,000	-		800,000	400,000		400,000	40,000	360,000	342,000	18,000
3	Camp Saredaca Main Building Expansion	2020-2024	1,250,000	-		1,250,000	125,000		1,125,000	112,500	1,012,500	961,875	50,625
4	Trail Development - Blackwell/Modeland	2019-2024	100,000	-		100,000	-	25,000	75,000	7,500	67,500	64,125	3,375
5	Tecumseh Spraypad Washroom/Changeroom/Concession Project	2019	75,000	-		75,000	-	50,000	25,000	2,500	22,500	21,375	1,125
6	Waterfront Improvements/Shoreline Protection	2019-2028	900,000	-		900,000	-		900,000	90,000	810,000	769,500	40,500
7	Canatara Park - LifeGuard/Washroom/Changeroom Project	2019-2021	200,000	-		200,000	-	75,000	125,000	12,500	112,500	106,875	5,625
8	Norm Perry Park - Field House/Washrooms	2021-2025	2,500,000	-		2,500,000	625,000		1,875,000	187,500	1,687,500	1,603,125	84,375
9	Accessible Sun Shade Shelters - Centennial Park	2019-2025	125,000	-		125,000	-	75,000	50,000	5,000	45,000	42,750	2,250
10	Trail Development - Modeland/Heritage Park	2019-2024	150,000	-		150,000	-	75,000	75,000	7,500	67,500	64,125	3,375
11	Riopelle Park Development	2019-2024	150,000	-		150,000	-	75,000	75,000	7,500	67,500	64,125	3,375
12	Rapids Parkway - Park Development	2019-2024	150,000	-		150,000	-	75,000	75,000	7,500	67,500	64,125	3,375
	Reserve Fund Balance						1,816,442		(1,816,442)		(1,816,442)	(1,725,620)	(90,822)
	Total		6,435,000	-	-	6,435,000	2,983,942	460,000	2,991,058	480,750	2,510,308	2,384,793	125,515



5.2.3 Indoor Recreation Facilities

With respect to recreation facilities, there are currently many facilities provided by the City amounting to a total of 401,000 sq.ft. of space. The average historical level of service for the previous ten years has been approximately 14 sq.ft. of space or an investment of \$3,522 per single-detached equivalent unit. Based on this service standard, the City would be eligible to collect \$5,040,054 from D.C.s for facility space.

As indicated in Section 4.8.1, the calculations used in this report have been based on the growth in units, rather than population. As a result, no capital costs for indoor recreation facilities have been included in the D.C. calculations.

5.2.4 Library Services

The City provides library services from three facilities with a total of 44,449 sq.ft. of library space. Over the past ten years, the average level of service was 1.55 sq.ft. of space or an investment of \$579 per single-detached equivalent unit. Based on the service standard over the past ten years, the City would be eligible to collect a total of \$828,621 from D.C.s for library services.

As indicated in Section 4.8.1, the calculations used in this report have been based on the growth in units, rather than population. As a result, no capital costs for library services have been included in the D.C. calculations.



5.2.5 Administration

The D.C.A. permits the inclusion of studies undertaken to facilitate the completion of the City's capital works program. The City has made provision for the inclusion of new studies undertaken to facilitate this D.C. process, as well as other studies which benefit growth (in whole or in part). The list of studies includes such studies as the following:

- D.C. background studies;
- Transportation Master Plan Update;
- Fire Master Plan/ Station Optimization; and
- Official Plan Review.

The cost of these studies is \$403,600, of which \$67,150 is attributable to existing benefit. The net growth-related capital cost, after the mandatory 10% deduction and the reduction of the existing reserve balance of \$47,300, is \$267,220. This amount has been included in the D.C. calculations.

These costs have been allocated 89% residential and 11% non-residential based on the incremental growth in population to employment for the 10-year forecast period.



Infrastructure Costs Included in the Development Charges Calculation

City of Sarnia
Service: Administration Studies

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share
2019-2028											89%	11%	
1	Development Charge Study	2019	67,500	-		67,500	-		67,500	6,750	60,750	54,068	6,683
2	Development Charge Study	2024	67,500	-		67,500	-		67,500	6,750	60,750	54,068	6,683
3	Transportation Master Plan Update	2024	56,200	-		56,200	14,050		42,150		42,150	37,514	4,637
4	Fire Master Plan/ Station Optimization	2019	100,000	-		100,000	25,000		75,000		75,000	66,750	8,250
5	Official Plan Review	2019	112,400	-		112,400	28,100		84,300	8,430	75,870	67,524	8,346
	Reserve Fund Balance						47,300		(47,300)		(47,300)	(42,097)	(5,203)
	Total		403,600	-	-	403,600	114,450	-	289,150	21,930	267,220	237,826	29,394



5.3 Service Levels and 13-Year Capital Costs for Sarnia's D.C. Calculation

This section evaluates the development-related capital requirements for those services provided on a City-wide basis with 13-year capital costs.

5.3.1 Services Related to a Highway

Sarnia owns and maintains 176.72 km of roads, of which 65% are urban roads and 35% are rural roads. The majority of roads are two lane urban roads. Over the past 10-year period, the City has sustained the average level of service of 5.9 km of roads per 1,000 single-detached equivalent units. This provides an average level of investment of \$9,276 per single-detached equivalent unit, resulting in a D.C.-eligible recovery amount of \$16,020,481 over the 13-year forecast period.

With respect to future needs, the City has identified a number of projects which include new roads and expansions of existing roads throughout the City. The total gross capital cost of the road program is \$47.43 million. Of this amount, deductions for post-period benefit of \$23.45 million and benefit to existing development of \$11.63 million have been made. Additionally, it is anticipated that the City will receive \$900,000 in other contributions for the work on Rapids Parkway. This amount was deducted from the calculations. A further deduction in the amount of \$2,183,498 was made to reflect the balance in the reserve fund. The resulting net growth-related capital costs included in the D.C. calculations is \$9,263,952.

Sarnia also provides 268 km of sidewalks throughout the municipality. Over the historical 10-year period the average level of service provided by the City was 9.2km of sidewalks per 1,000 single-detached units. When the average level of investment of \$1,720 is applied to the forecast growth in single-detached equivalents, the resultant D.C. eligible amount is \$2,970,889 over the forecast period.

This City has identified the need for 8 sidewalk projects over the forecast period. The total gross capital cost for these projects is \$4.65 million. Of this amount, \$2,575,000 and \$905,000 have been deducted from the calculations for the amount that benefit growth in the post-period and the amount that benefits existing development,



respectively. The resulting D.C. eligible amount of \$1,170,000 has been included in the D.C. calculations.

Additionally, Sarnia provides 6,990 streetlights and 90 traffic signals. Over the previous 10-year period, the City provided an average level of service of 0.25 streetlights and signals per single-detached equivalent unit. Over the forecast period, the City is eligible to collect \$1,864,176 from D.C.s for traffic signals and streetlights.

With respect to future needs, the City has identified a total of \$2.80 million in gross capital costs for signals and streetlights. A deduction of \$540,000 has been made for the amount that benefits development post-2031. Additionally, \$450,000 has been deducted from the calculations for the amount that benefits existing development. After these deductions, the net growth-related capital cost included in the D.C. study is \$1,810,000.

The residential/non-residential allocation for all services related to a highway is based on the forecast growth in population and employment over the 13-year forecast period. This ratio provides for a residential/non-residential allocation of 90% residential and 10% non-residential.



Infrastructure Costs Included in the Development Charges Calculation

City of Sarnia
Service: Roads

Prj .No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 90%	Non-Residential Share 10%
	2019-2031										
1	Miscellaneous Capacity Improvements (turn lanes, widening, utility relocation, etc.)	2019-2037	750,000	281,300		468,700	187,500		281,200	253,080	28,120
2	Barclay (Exmouth to Quinn)	2020	150,000	56,300		93,700	37,500		56,200	50,580	5,620
3	Rapids Pkwy (Sandpiper to Exmouth)	2021	1,600,000	262,500		1,337,500	175,000	900,000	262,500	236,250	26,250
4	Exmouth Street Widening (Murphy to Amsterdam)	2021	350,000	131,300		218,700	87,500		131,200	118,080	13,120
5	Veterans Parkway (HPD to Confed)	2022	1,500,000	562,500		937,500	375,000		562,500	506,250	56,250
6	Roundabout @ VP and HPD	2022	875,000	328,100		546,900	218,750		328,150	295,335	32,815
7	Confederation & Indian Widen Intersection	2025	300,000	112,500		187,500	75,000		112,500	101,250	11,250
8	Veterans Parkway (HPD to Wellington)	2026	1,500,000	562,500		937,500	375,000		562,500	506,250	56,250
9	Wellington (Research Park to VP)	2026	2,655,000	995,600		1,659,400	663,750		995,650	896,085	99,565
10	Roundabout @ VP and Wellington	2026	875,000	328,100		546,900	218,750		328,150	295,335	32,815
11	Confederation (Modeland to VMP)	2028	2,300,000	862,500		1,437,500	575,000		862,500	776,250	86,250
12	Heritage Park Drive (HPD to Blackwell)	2028	1,550,000	581,300		968,700	387,500		581,200	523,080	58,120
13	Wellington (VP to Blackwell)	2030	3,000,000	1,125,000		1,875,000	750,000		1,125,000	1,012,500	112,500
14	Confederation (VMP to Blackwell)	2034	1,200,000	900,000		300,000	300,000		-	-	-
15	Blackwell (Confederation to BWC Phase1)	2037	3,100,000	2,325,000		775,000	775,000		-	-	-
16	Rapids Parkway Ditch Enclosure	2025	300,000	112,500		187,500	75,000		112,500	101,250	11,250
17	Roundabout @ Quinn and LMR	2023	875,000	328,100		546,900	218,750		328,150	295,335	32,815
18	Gladwish Drive	2022	750,000	281,300		468,700	187,500		281,200	253,080	28,120
19	Collector Road - Wellington to London Line	2030	3,575,000	1,340,600		2,234,400	893,750		1,340,650	1,206,585	134,065
20	Veterans Parkway (Wellington to London Line)	2033	8,830,000	6,622,500		2,207,500	2,207,500		-	-	-
21	Glen Abbey Drive (Eagle to Veterans)	2033	1,950,000	1,462,500		487,500	487,500		-	-	-
22	Heritage Park Drive (VP to Blackwell)	2028	1,440,000	540,000		900,000	360,000		540,000	486,000	54,000
23	Procor Drive (loop to Confederation)	2024	2,990,000	1,121,300		1,868,700	747,500		1,121,200	1,009,080	112,120
24	Bike Lane Infill for Modal Split	2019-2037	500,000	187,500		312,500	125,000		187,500	168,750	18,750
25	Blackwell/Confederation SB Turn Lane	2030	201,500	75,600		125,900	50,375		75,525	67,973	7,553
26	Modeland/Wellington Turn Lanes	2032	923,000	692,200		230,800	230,800		-	-	-
27	Upper Canada Drive/Confederation Turn Lanes	2023	200,000	75,000		125,000	50,000		75,000	67,500	7,500
28	Modeland/Confederation Turn Lanes	2023	890,500	333,900		556,600	222,625		333,975	300,578	33,398
29	Afton Drive Realignment	2022	1,300,000	487,500		812,500	325,000		487,500	438,750	48,750
30	Upper Canada Drive Urbanization (Confederation to David Bolduc)	2025	1,000,000	375,000		625,000	250,000		375,000	337,500	37,500
	Reserve Fund Balance						2,183,498		(2,183,498)	(1,965,148)	(218,350)
	Total		47,430,000	23,450,000	-	23,980,000	13,816,048	900,000	9,263,952	8,337,557	926,395



Infrastructure Costs Included in the Development Charges Calculation

City of Sarnia
Service: Sidewalks

Prj .No	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 90%	Non-Residential Share 10%
1	Miscellaneous infill sidewalk arterial roads	2019-2037	750,000	125,000		625,000	500,000		125,000	112,500	12,500
2	London Line sidewalk/trail - Barclay to Blackwell	2024	1,000,000	500,000		500,000	100,000		400,000	360,000	40,000
3	Berger sidewalk	2023	150,000	75,000		75,000	15,000		60,000	54,000	6,000
4	Confederation - Murphy to Upper Canada Multi-Use Trail	2022	1,200,000	600,000		600,000	175,000		425,000	382,500	42,500
5	London Road - Lambton Mall to London Line	2026	250,000	125,000		125,000	25,000		100,000	90,000	10,000
6	Rapids Parkway Sidewalk	2023	300,000	150,000		150,000	30,000		120,000	108,000	12,000
7	Michigan ditch enclosure and sidewalk (Blackwell to Wheatly)	2022	500,000	250,000		250,000	60,000		190,000	171,000	19,000
8	Modeland Road - Michigan to Lakeshore multi-use Trail	2033	500,000	500,000		-	-		-	-	-
	Total		4,650,000	2,325,000	-	2,325,000	905,000	-	1,420,000	1,278,000	142,000



5.3.2 County Roads

The City collects D.C.s on behalf of the County for County road work. The County is responsible for carrying out the work.

The County, in City of Sarnia, provides for 77.9 km of County roads within the municipality. These roads include both urban and rural roads. Over the historical 10-year period the level of service provided was 2.7 km of roads per 1,000 single-detached equivalent units. This results in an average level of investment of \$3,719 per single-detached equivalent and a D.C. eligible amount of \$6,422,920 over the 13-year forecast period.

With respect to the capital needs, the City has identified the need for urbanization and widening of roads, as well as providing for bike lanes. The total gross capital cost identified is \$9,122,800. A post-period deduction of \$1,686,400 and a benefit to existing development deduction of \$3,404,600 were applied to the D.C. calculations. Additionally, \$878,820 was deducted from the calculations to reflect the balance in the reserve fund. After all deductions, the amount included in the D.C. calculations is \$3,152,980.

As noted for services related to a highway, the residential/non-residential capital cost allocation is 90%/10% based on the incremental growth in population to employment for the 13-year forecast period.



Infrastructure Costs Included in the Development Charges Calculation

City of Sarnia
Service: County Roads

Prj .No	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 90%	Non-Residential Share 10%
1	London Road - Urbanize cross section from Lambton Mall to London Line	2026	2,250,000	-		2,250,000	843,200		1,406,800	1,266,120	140,680
2	Confederation - Urbanize Murphy to Modeland	2030	3,000,000	-		3,000,000	750,000		2,250,000	2,025,000	225,000
3	Indian Road Widening - Plank to Highway 40	2037	3,372,800	1,686,400		1,686,400	1,686,400		-	-	-
4	Bike Lane Infill for Modal Split	2019-2037	500,000	-		500,000	125,000		375,000	337,500	37,500
	Reserve Fund Balance						878,820		(878,820)	(790,938)	(87,882)
	Total		9,122,800	1,686,400	-	7,436,400	4,283,420	-	3,152,980	2,837,682	315,298



5.3.3 Public Works Facilities, Fleet & Equipment

The Public Works Department has a variety of vehicles and major equipment totalling approximately \$11.74 million. Over the previous 10-year period the average level of service equates to an investment of \$408 per single-detached equivalent unit. Over the forecast period, the D.C.-eligible amount for vehicles and equipment is \$705,030.

The City operates their Public Works service out of a number of facilities. The facilities provide 62,000 sq.ft. of building area, providing for an average level of service of 2.16 sq.ft. or \$473 per single-detached equivalent unit. This level of service provides the City with a D.C.-eligible amount for recovery over the 13-year forecast period of \$817,182.

In total, the average level of investment for public works services is \$881 per single-detached equivalent which results in a combined D.C. eligible amount of \$1,522,212 over the forecast period.

The City has identified the need for two additional sidewalk plows and two trucks to service growth to 2031. The total gross capital cost of these vehicles is \$640,000. After the deduction of the reserve fund balance of \$120,099, the net D.C. recoverable cost included in the D.C. calculations is \$519,901.

The residential/non-residential capital cost allocation for public works is 90%/10% split based on the incremental growth in population to employment for the 13-year forecast period.



Infrastructure Costs Included in the Development Charges Calculation

City of Sarnia

Service: Services Related to a Highway - Public Works

Prj .No	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 90%	Non-Residential Share 10%
1	Sidewalk Plow	2019	150,000	-		150,000	-		150,000	135,000	15,000
2	Sidewalk Plow	2022	150,000	-		150,000	-		150,000	135,000	15,000
3	Pickup/Vans 1/2 Ton	2022	40,000	-		40,000	-		40,000	36,000	4,000
4	Truck 5 ton	2023	300,000	-		300,000	-		300,000	270,000	30,000
	Reserve Fund Balance						120,099		(120,099)	(108,089)	(12,010)
	Total		640,000	-	-	640,000	120,099	-	519,901	467,911	51,990



5.3.4 Police Services

The Sarnia Police Service operates from its headquarters which utilizes 45,088 sq.ft. of facility space. Additionally, the police service leases 4,600 sq.ft. of training facility space. These facilities combined provide 49,688 sq.ft. of building area. Over the historical 10-year period the City has provided an average level of service of 1.60 sq.ft. of space per single-detached equivalent unit. The City also provides 43 police vehicles and \$2.42 million in police equipment. In total, the average level of investment over the previous 10 years is \$651 per single-detached equivalent. Over the forecast period, this level of investment provides a D.C. eligible amount of \$1,124,294.

To service growth over the 13-year forecast period, the City has identified the need for a radio system upgrade. This upgrade would potentially include new towers and new equipment to improve coverage to capture new development areas. As the City is reviewing options for the upgrade, no specific details have been identified. Instead, a provision in the amount of \$1,000,000 has been included in the D.C. calculations until further details of the project are provided.

The costs for the police services are shared 90%/10% between residential and non-residential based on the forecasted population to employment ratio over the 13-year period.



Infrastructure Costs Included in the Development Charges Calculation

City of Sarnia
Service: Police Services

Prj .No	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 90%	Non-Residential Share 10%
1	Provision for Radio System upgrade	2019-2020	1,000,000	-		1,000,000	-		1,000,000	900,000	100,000
	Total		1,000,000	-	-	1,000,000	-	-	1,000,000	900,000	100,000



5.3.5 Fire Protection Services

Sarnia currently operates its fire services from 38,500 sq.ft. of facility space, providing for a per single-detached equivalent unit average level of service of 1.34 sq.ft. or \$399. This level of service provides the City with a maximum D.C.-eligible amount for recovery over the forecast period of \$689,367.

Over the forecast period, the City has identified the need to provide additional facility space, however no specific details have been provided at this time. Council currently has approved a study to review the needs of the fire service and will determine, based on the results, how to proceed. As a result a provision in the amount of \$689,000 has been included in the D.C. calculations.

The fire department has a current inventory of 32 vehicles. Over the historical 10-year period, the average level of service provided was an investment of \$311 per single-detached equivalent unit. The total D.C.-eligible amount calculated for fire vehicles over the forecast period is \$536,493.

The need to upgrade a tanker to a pumper/tanker and a provision for additional fire vehicles have been provided. The total gross capital cost for these items is \$900,000. A deduction of 50% for the amount of the pumper/tanker that benefits existing development has been provided. After the benefit to existing development deduction, the D.C. recoverable amount included in the D.C. calculations is \$500,000.

The fire department currently has approximately \$2.87 million worth of equipment for use in providing fire services to the City of Sarnia. This results in a calculated average level of service for the historical 10-year period of \$75 per capita. This results in a D.C.-eligible amount over the forecast period of \$129,629 for small equipment and gear.

Based on growth-related needs, a provision for additional fire equipment and gear has been provided in the amount of \$129,600. This amount has been included in the D.C. calculations.

Fire services costs are shared between residential and non-residential based on the incremental population to employment ratio over the forecast period, resulting in 90% being allocated to residential development and 10% being allocated to non-residential development.



Infrastructure Costs Included in the Development Charges Calculation

City of Sarnia
Service: Fire Vehicles

Prj .No	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 90%	Non-Residential Share 10%
1	Pumper/Tanker (upgrade from Tanker)	2022	800,000	-		800,000	400,000		400,000	360,000	40,000
2	Provision for additional fire vehicles	2019-2031	100,000	-		100,000	-		100,000	90,000	10,000
	Total		900,000	-	-	900,000	400,000	-	500,000	450,000	50,000



5.4 Service Levels and Urban 13-Year Capital Costs for Sarnia's D.C. Calculation

This section evaluates the development-related capital requirements for those services with urban 13-year capital costs (all urban areas other than Development Area 2). These capital cost estimates were developed based on City budgets and through discussions with staff.

5.4.1 Stormwater Drainage and Control Services

The City has identified \$2.6 million in stormwater projects to benefit the urban areas of the City. These include drainage works on Rapids Parkway and a ditch enclosure as well as a provision for future stormwater infrastructure upsizing. Deductions to the capital costs for post-period benefit (\$434,000) and benefit to existing development (\$1,060,000) have been applied to the calculations. Additionally, \$374,414 was deducted from the calculations to recognize the balance in the reserve fund. After all deductions, the net D.C. recoverable cost included in the D.C. calculations is \$731,586.

The costs for stormwater services are shared 85%/15% between residential and non-residential based on the area of benefiting lands associated with the stormwater works over the 13-year forecast period.



Infrastructure Costs Included in the Development Charges Calculation

City of Sarnia

Service: Stormwater - All Other Urban Areas

Prj.No	Increased Service Needs Attributable to Anticipated Development 2019-Other Urban Serviced Area 13-year	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 85%	Non-Residential Share 15%
1	Rapids Parkway (Exmouth to Sandpiper)	2021	300,000	32,000		268,000	30,000		238,000	202,300	35,700
2	Rapids Parkway Ditch Enclosure	2024	300,000	32,000		268,000	30,000		238,000	202,300	35,700
3	Stormwater upsizing provision	2019-2037	2,000,000	370,000		1,630,000	1,000,000		630,000	535,500	94,500
	Reserve Fund Balance						374,414		(374,414)	(318,252)	(56,162)
	Total		2,600,000	434,000	-	2,166,000	1,434,414	-	731,586	621,848	109,738



5.4.2 Wastewater Services

Sarnia has identified the need for a number of wastewater projects throughout the City. These projects include gravity sewers, pumping stations, capacity improvements, and various upgrades. The total gross capital costs for these works is \$38,699,000. Of this amount, \$7,103,000 has been deducted for the share of the costs that benefit growth outside of the 13-year urban forecast period. Further, \$19,499,650 has been deducted from the calculations for the share of the costs that benefit existing development. An additional deduction in the amount of \$2,849,360 has been made to reflect the balance in the reserve fund. The net D.C. recoverable amount after the deductions mentioned above is \$9,246,990. This amount has been included in the D.C. calculations.

The growth-related costs have been allocated between residential and non-residential development based the incremental population and employment growth over the forecast period. This results in a 86% allocation to residential development and a 14% allocation to non-residential development.



Infrastructure Costs Included in the Development Charges Calculation

City of Sarnia

Service: Wastewater Services - All Other Urban Areas

Prj.No	Increased Service Needs Attributable to Anticipated Development 2019-Other Urban Serviced Area 13-year	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 86%	Non-Residential Share 14%
1	Plank Road Gravity Sewer	2022	550,000	183,000		367,000	55,000		312,000	268,320	43,680
2	Plank Road Pump Station (26) - Increase Capacity	2020	1,000,000	278,000		722,000	250,000		472,000	405,920	66,080
3	Bedford Pumping Station (Other urban areas share)	2020-2021	19,470,000	2,377,000		17,093,000	13,044,900		4,048,100	3,481,366	566,734
4	Capacity Improvements (sewer separation, I/I reduction)	2019-2037	10,000,000	1,850,000		8,150,000	5,000,000		3,150,000	2,709,000	441,000
5	Analysis/Stress Test to Confirm Plant Peak Flows (Other urban areas share)	2020	24,000	7,000		17,000	6,000		11,000	9,460	1,540
6	Review Hydraulic Constriction (Other urban areas share)	2021	27,000	7,000		20,000	6,750		13,250	11,395	1,855
7	Wet Weather Flow Management Strategy (Other urban areas share)	2021	56,000	10,000		46,000	28,000		18,000	15,480	2,520
8	UV System Upgrades (Other urban areas share)	2021	12,000	1,000		11,000	9,000		2,000	1,720	280
9	Secondary Treatment Upgrades (Other urban areas share)	2023	590,000	109,000		481,000	295,000		186,000	159,960	26,040
10	UV Treatment Upgrades (Other urban areas share)	2025	590,000	109,000		481,000	295,000		186,000	159,960	26,040
11	Gladwish Gravity Sewer	2023	1,000,000	333,000		667,000	100,000		567,000	487,620	79,380
12	PCP Biosolids Upgrade (Other urban areas share)	2020	2,655,000	982,000		1,673,000	-		1,673,000	1,438,780	234,220
13	Industrial Land Servicing Study	2019	125,000	46,000		79,000	-		79,000	67,940	11,060
14	Rapids Forcemain (Pumpstation to Willa)	2020	1,600,000	533,000		1,067,000	160,000		907,000	780,020	126,980
15	London/Blackwell PS Upgrades (53, 29, 54, 45, 27)	2024	1,000,000	278,000		722,000	250,000		472,000	405,920	66,080
	Reserve Fund Balance						2,849,360		(2,849,360)	(2,450,450)	(398,910)
	Total		38,699,000	7,103,000	-	31,596,000	22,349,010	-	9,246,990	7,952,411	1,294,579



5.4.3 Water Services

With respect to growth-related needs for water services, two projects were identified through discussions with staff. These include water works on Rapids Parkway and on Gladwish Drive. The total capital cost for these projects is \$1,000,000. Deductions for post-period benefit in the amount of \$139,000 and for benefit to existing development in the amount of \$260,000 have been applied to the D.C. calculations, resulting in a D.C. recoverable amount of \$601,000. The balance in the D.C. reserve fund is \$956,581. As this exceeds the capital needs, no D.C. recoverable amounts are included in the D.C. calculations.

The growth-related costs have been allocated between residential and non-residential development based the incremental population and employment growth over the forecast period. This results in an 86% allocation to residential development and a 14% allocation to non-residential development.



Infrastructure Costs Included in the Development Charges Calculation

City of Sarnia

Service: Water Services - All Other Urban Areas

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 86%	Non-Residential Share 14%
1	Rapids Pkway (Exmouth to Sandpiper)	2021	600,000	65,000		535,000	60,000		475,000	408,500	66,500
2	Gladwish Drive	2019	400,000	74,000		326,000	200,000		126,000	108,360	17,640
	Reserve Fund Balance						601,000		(601,000)	(516,860)	(84,140)
	Total		1,000,000	139,000	-	861,000	861,000	-	-	-	-



5.5 Development Area 2 Capital Costs for Sarnia's Area-specific D.C. Calculation

This section provides for the water, wastewater, and stormwater capital projects required to service growth in Development Area 2. Historically the City has collected growth-related capital costs related to specific development areas through development agreements. As of January 1, 2016, the D.C.A. was amended to include a provision with respect to “no additional levies”. As a result, the City has chosen to include these costs through an area-specific D.C. instead of collecting the charges as part of development agreements.

5.5.1 Stormwater Services

The City has identified 14 stormwater projects to service Development Area 2. The total gross capital cost of these projects is \$21,567,000. Of this amount, \$10,174,200 has been deducted to reflect the amount that benefits growth outside of the forecast period. An additional amount of \$2,344,200 has been deducted for the amount that benefits existing development. After these deductions the net D.C. recoverable amount included in the D.C. calculations is \$9,048,600.

The costs for stormwater services are shared 96%/4% between residential and non-residential based on the area of benefiting lands associated with the stormwater works in Development Area 2 over the 13-year forecast period.



5.5.2 Wastewater Services

A number of wastewater projects have been identified for Development Area 2. These projects include works related to forcemains, pumping stations, and trunk sewers. The total gross capital cost for these works totals \$40,996,000. Deductions for post-period benefit and benefit to existing development have been made in the amounts of \$11,062,000 and \$14,933,100, respectively. The net growth-related cost included in the D.C. calculations, after the deductions noted above, is \$15,000,900.

The growth-related costs have been allocated between residential and non-residential development based the incremental population and employment growth over the forecast period in Development Area 2. This results in a 97% allocation to residential development and a 3% allocation to non-residential development.



5.5.3 Water Services

The City has identified 7 water projects to service Development Area 2. The total gross capital cost of these projects is \$1.7 million. Of this amount, \$644,000 has been deducted to reflect the amount that benefits growth outside of the forecast period. An additional amount of \$169,000 has been deducted for the amount that benefits existing development. A further reduction of \$355,581 has been provided to reflect the balance in the water reserve fund (note this balance reflects the remaining balance after applying reserve funds for the Urban-wide water capital projects). After these deductions the net D.C. recoverable amount included in the D.C. calculations is \$531,419.

The growth-related costs have been allocated between residential and non-residential development based the incremental population and employment growth over the forecast period in Development Area 2. This results in a 97% allocation to residential development and a 3% allocation to non-residential development.



Infrastructure Costs Included in the Development Charges Calculation

City of Samia

Service: Water Services - Area 2

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
	2019-Other Urban Serviced Area 13-year									97%	3%
1	Veterans Parkway (London Line to Wellington)	2033	500,000	189,000		311,000	50,000		261,000	253,170	7,830
2	Veterans Parkway (HPD to Confed)	2022	200,000	76,000		124,000	19,000		105,000	101,850	3,150
3	Veterans Parkway (HPD to Wellington)	2026	200,000	76,000		124,000	20,000		104,000	100,880	3,120
4	Wellington (Research Park to VP)	2020	300,000	113,000		187,000	30,000		157,000	152,290	4,710
5	Heritage Park Drive (Doris McCarthy to VMP)	2028	150,000	57,000		93,000	15,000		78,000	75,660	2,340
6	Procor Drive (Procor Drive to Confederation)	2024	150,000	57,000		93,000	15,000		78,000	75,660	2,340
7	Glen Abbey (Eagle Way to VMP)	2026	200,000	76,000		124,000	20,000		104,000	100,880	3,120
	Reserve Fund Balance						355,581		(355,581)	(344,914)	(10,667)
	Total		1,700,000	644,000	-	1,056,000	524,581	-	531,419	515,476	15,943



Chapter 6

D.C. Calculation



6. D.C. Calculation

Table 6-1 calculates the proposed D.C.s to be imposed for infrastructure services based upon an urban 13-year horizon (stormwater, wastewater, and water). Table 6-2 calculates the proposed area-specific D.C.s for Development Area 2. Table 6-3 calculates the proposed uniform D.C. to be imposed on development for City-wide services over a 13-year planning horizon. Table 6-4 calculates the proposed uniform D.C. to be imposed on development for City-wide services over a 10-year planning horizon.

The calculation for residential development is generated on a per single-detached equivalent basis and is based upon five forms of housing types (single and semi-detached, apartments 2+ bedrooms, apartment's bachelor and 1 bedroom, all other multiples and special care/special dwelling units). The non-residential D.C. has been calculated on a per sq.ft. of gross floor area basis for all types of non-residential development (industrial, commercial and institutional).

The D.C.-eligible costs for each service component were developed in Chapter 5 for all City services, based on their proposed capital programs.

For the residential calculations, the total cost is divided by the "gross" (new resident) single-detached equivalent units to determine the per single-detached equivalent amount. The eligible D.C. cost calculations set out in Chapter 5 are based on the net anticipated unit increase (the forecast new units less the anticipated decline in existing units). The cost per single-detached equivalent is then multiplied by the ratios of average occupancy of the new units (Appendix A, Schedule 5) to calculate the charge in Tables 6-1 through 6-4.

With respect to non-residential development, the total costs in the uniform charge allocated to non-residential development (based on need for service) have been divided by the anticipated development over the planning period to calculate a cost per sq.ft. of gross floor area.

Table 6-5 summarizes the total D.C. that is applicable, and Table 6-6 summarizes the gross capital expenditures and sources of revenue for works to be undertaken during the 5-year life of the by-law. Table 6-7 compares the current D.C.s provided in Chapter 2 and the calculated charges provided below.



Table 6-1
City of Sarnia
Development Charges Calculation
All Other Urban Area Services
2019-2031

SERVICE	2019\$ D.C.-Eligible Cost		2019\$ D.C.-Eligible Cost	
	Residential	Non-Residential	S.D.U.	per sq.ft.
	\$	\$	\$	\$
1. <u>Stormwater Drainage and Control Services</u>				
1.1 Channels, drainage and ponds	621,848	109,738	578	0.31
	621,848	109,738	578	0.31
2. <u>Wastewater Services</u>				
2.1 Treatment plants & Sewers	7,952,411	1,294,579	7,398	3.60
	7,952,411	1,294,579	7,398	3.60
3. <u>Water Services</u>				
3.1 Treatment, storage and distribution systems	-	-	-	-
	-	-	-	-
TOTAL	\$8,574,260	\$1,404,317	\$7,976	\$3.91
D.C.-Eligible Capital Cost	\$8,574,260	\$1,404,317		
Urban 13-year S.D.E.s/G.F.A. Growth (sq.ft.)	1,075	359,400		
Cost Per S.D.E./Non-Residential GFA (sq.ft.)	\$7,976	\$3.91		
By Residential Unit Type				
	Ratio			
Single and Semi-Detached Dwelling	100%	\$7,976		
Apartments - 2 Bedrooms +	69%	\$5,477		
Apartments - Bachelor and 1 Bedroom	45%	\$3,614		
Other Multiples	73%	\$5,818		
Special Care/Special Dwelling Units	41%	\$3,242		



Table 6-2
City of Sarnia
Development Charges Calculation
Development Area 2 Services
2019-2031

SERVICE	2019\$ D.C.-Eligible Cost		2019\$ D.C.-Eligible Cost	
	Residential	Non-Residential	S.D.U.	per sq.ft.
	\$	\$	\$	\$
4. <u>Stormwater Drainage and Control Services</u>				
4.1 Channels, drainage and ponds	8,686,656	361,944	10,019	6.02
	8,686,656	361,944	10,019	6.02
5. <u>Wastewater Services</u>				
5.1 Treatment plants & Sewers	14,550,873	450,027	16,783	7.49
	14,550,873	450,027	16,783	7.49
6. <u>Water Services</u>				
6.1 Treatment, storage and distribution systems	515,476	15,943	595	0.27
	515,476	15,943	595	0.27
TOTAL	\$23,753,005	\$827,914	\$27,397	\$13.78
D.C.-Eligible Capital Cost	\$23,753,005	\$827,914		
Area 2 Urban 13-year S.D.E.s/G.F.A. Growth (sq.ft.)	867	60,100		
Cost Per S.D.E./Non-Residential GFA (sq.ft.)	\$27,397	\$13.78		
By Residential Unit Type				
Single and Semi-Detached Dwelling	100%	\$27,397		
Apartments - 2 Bedrooms +	69%	\$18,811		
Apartments - Bachelor and 1 Bedroom	45%	\$12,413		
Other Multiples	73%	\$19,986		
Special Care/Special Dwelling Units	41%	\$11,137		



Table 6-3
City of Sarnia
Development Charges Calculation
City-wide Services
2019-2031

SERVICE	2019\$ D.C.-Eligible Cost		2019\$ D.C.-Eligible Cost	
	Residential	Non-Residential	S.D.U.	per sq.ft.
	\$	\$	\$	\$
7. Services Related to a Highway				
7.1 Roads	8,337,557	926,395	4,145	1.87
7.2 Traffic Signals and Streetlights	1,629,000	181,000	810	0.36
7.3 Sidewalks	1,278,000	142,000	636	0.29
7.4 Public Works	467,911	51,990	233	0.10
7.5 County Roads	2,837,682	315,298	1,411	0.63
	14,550,150	1,616,683	7,235	3.25
8. Fire Protection Services				
8.1 Fire facilities	620,100	68,900	308	0.14
8.2 Fire vehicles	450,000	50,000	224	0.10
8.3 Small equipment and gear	116,640	12,960	58	0.03
	1,186,740	131,860	590	0.27
9. Police Services				
9.1 Police facilities, vehicles and equipment	900,000	100,000	448	0.20
	900,000	100,000	448	0.20
TOTAL	\$16,636,890	\$1,848,543	\$8,273	\$3.72
D.C.-Eligible Capital Cost	\$16,636,890	\$1,848,543		
13-Year Gross S.D.E.s/G.F.A. Growth (sq.ft.)	2,011	496,500		
Cost Per S.D.E./Non-Residential GFA (sq.ft.)	\$8,273	\$3.72		
By Residential Unit Type				
	Ratio			
Single and Semi-Detached Dwelling	100%	\$8,273		
Apartments - 2 Bedrooms +	69%	\$5,680		
Apartments - Bachelor and 1 Bedroom	45%	\$3,748		
Other Multiples	73%	\$6,035		
Special Care/Special Dwelling Units	41%	\$3,363		



Table 6-4
City of Sarnia
Development Charges Calculation
City-wide Services
2019-2028

SERVICE	2019\$ D.C.-Eligible Cost		2019\$ D.C.-Eligible Cost	
	Residential	Non-Residential	S.D.U.	per sq.ft.
	\$	\$	\$	\$
10. Parking Services				
10.1 Municipal parking spaces	112,140	13,860	70	0.03
	112,140	13,860	70	0.03
11. Outdoor Recreation Services				
11.1 Parkland development, amenities & trails	2,384,793	125,515	1,478	0.30
11.2 Parks vehicles and equipment	246,240	12,960	153	0.03
	2,631,033	138,475	1,631	0.33
12. Administration				
12.1 Studies	237,826	29,394	147	0.07
TOTAL	\$2,980,998	\$181,730	\$1,848	\$0.43
D.C.-Eligible Capital Cost	\$2,980,998	\$181,730		
10-Year Gross S.D.E.s/G.F.A. Growth (sq.ft.)	1,613	421,900		
Cost Per S.D.E./Non-Residential GFA (sq.ft.)	\$1,848	\$0.43		
By Residential Unit Type				
	P.P.U.			
Single and Semi-Detached Dwelling	100%	\$1,848		
Apartments - 2 Bedrooms +	69%	\$1,269		
Apartments - Bachelor and 1 Bedroom	45%	\$837		
Other Multiples	73%	\$1,348		
Special Care/Special Dwelling Units	41%	\$751		



Table 6-5
City of Sarnia
Development Charges Calculation
Total All Services

	2019\$ D.C.-Eligible Cost		2019\$ D.C.-Eligible Cost	
	Residential	Non-Residential	S.D.U.	per sq.ft.
	\$	\$	\$	\$
All Other Urban Areas - 13-year	8,574,260	1,404,317	7,976	3.91
Development Area 2 Services - 13-year	23,753,005	827,914	27,397	13.78
City-wide Services 13-year	16,636,890	1,848,543	8,273	3.72
City-wide Services 10-year	2,980,998	181,730	1,848	0.43
Total City-wide	19,617,888	2,030,273	10,121	4.15
Total All Other Urban Areas (i.e. excluding Development Area 2)	28,192,148	3,434,589	18,097	8.06
Total Development Area 2	51,945,153	4,262,503	45,494	21.84



Table 6-6
City of Sarnia
Gross Expenditure and Sources of Revenue Summary for Costs to be Incurred over the Life of the By-law

Service	Total Gross Cost	Sources of Financing						
		Tax Base or Other Non-D.C. Source				Post D.C. Period Benefit	D.C. Reserve Fund	
		Other Deductions	Benefit to Existing	Other Funding	Legislated Reduction		Residential	Non-Residential
All Other Urban Areas Services								
1. Stormwater Drainage and Control Services								
1.1 Channels, drainage and ponds	826,316	0	293,158	0	0	129,368	343,221	60,568
2. Wastewater Services								
2.1 Treatment plants & Sewers	29,740,579	0	15,270,439	0	0	5,352,842	7,840,876	1,276,422
3. Water Services								
3.1 Treatment, storage and distribution systems	1,000,000	0	260,000	0	0	139,000	516,860	84,140
Area 2 Urban Services								
4. Stormwater Drainage and Control Services								
4.1 Channels, drainage and ponds	5,378,000	0	537,800	0	0	2,033,000	2,694,912	112,288
5. Wastewater Services								
5.1 Treatment plants & Sewers	24,101,210	0	11,603,621	0	0	5,249,714	7,030,439	217,436
6. Water Services								
6.1 Treatment, storage and distribution systems	500,000	0	49,000	0	0	189,000	254,140	7,860
City-wide Services								
7. Services Related to a Highway								
7.1 Roads	8,819,447	0	1,979,862	900,000	0	2,969,868	2,672,745	296,972
7.2 Traffic Signals and Streetlights	1,200,000	0	290,000	0	0	0	819,000	91,000
7.3 Sidewalks	2,347,368	0	411,579	0	0	1,107,895	745,105	82,789
7.4 Public Works	640,000	0	0	0	0	0	576,000	64,000
7.5 County Roads	131,579	0	32,895	0	0	0	88,816	9,868
8. Fire Protection Services								
8.1 Fire facilities	265,000	0	0	0	0	0	238,500	26,500
8.2 Fire vehicles	838,462	0	400,000	0	0	0	394,615	43,846
8.3 Small equipment and gear	49,846	0	0	0	0	0	44,862	4,985
9. Police Services								
9.1 Police facilities, vehicles and equipment	1,000,000	0	0	0	0	0	900,000	100,000
10. Parking Services								
10.1 Municipal parking spaces	0	0	0	0	0	0	0	0
11. Outdoor Recreation Services								
11.1 Parkland development, amenities & trails	4,307,619	0	809,167	396,905	310,155	0	2,651,823	139,570
11.2 Parks vehicles and equipment	144,000	0	0	0	14,400	0	123,120	6,480
12. Administration								
12.1 Studies	279,900	0	53,100	0	15,180	0	188,342	23,278
Total Expenditures & Revenues	\$81,569,326	\$0	\$31,990,621	\$1,296,905	\$339,735	\$17,170,688	\$28,123,376	\$2,648,003



Table 6-7
City of Sarnia
Residential and Non-residential D.C. Comparison
Current vs. Calculated D.C.

Residential (Single Detached) Comparison

Service	Current	Calculated
City-wide Services:		
Services Related to a Highway (Roads and Related)	2,275	5,591
Public Works	-	233
County Roads	171	1,411
Parking Services	-	70
Fire Protection Services	119	590
Police Services	-	448
Outdoor Recreation Services	-	1,631
Indoor Recreation Services	-	-
Library Services	-	-
Administration	91	147
Total City-wide Services	2,656	10,121
All Other Urban Areas:		
Stormwater Drainage and Control Services	1,007	578
Wastewater Services	3,658	7,398
Water Services	652	-
All Other Urban Areas	5,317	7,976
Grand Total - All Other Urban Areas	7,973	18,097
Development Area 2 Services:		
Stormwater Drainage and Control Services	1,007	10,019
Wastewater Services	3,658	16,783
Water Services	652	595
Total Development Area 2 Services	5,317	27,397
Grand Total - Development Area 2	7,973	37,518

Note: Development Area 2 calculated charges include costs which would have previously been included in development agreements outside of development charges

Non-Residential (per sq.ft.) Comparison

Service	Current	Calculated
City-wide Services:		
Services Related to a Highway (Roads and Related)	1.40	2.52
Public Works	-	0.10
County Roads	0.10	0.63
Parking Services	-	0.03
Fire Protection Services	0.07	0.27
Police Services	-	0.20
Outdoor Recreation Services	-	0.33
Indoor Recreation Services	-	-
Library Services	-	-
Administration	0.05	0.07
Total City-wide Services	1.62	4.15
All Other Urban Areas:		
Stormwater Drainage and Control Services	0.82	0.31
Wastewater Services	2.26	3.60
Water Services	0.40	-
All Other Urban Areas	3.48	3.91
Grand Total - All Other Urban Areas	5.10	8.06
Development Area 2 Services:		
Stormwater Drainage and Control Services	0.82	6.02
Wastewater Services	2.26	7.49
Water Services	0.40	0.27
Total Development Area 2 Services	3.48	13.78
Grand Total - Development Area 2	8.58	21.84

Note: Development Area 2 calculated charges include costs which would have previously been included in development agreements outside of development charges



Chapter 7

D.C. Policy Recommendations and D.C. By-law Rules



7. D.C. Policy Recommendations and D.C. By-law Rules

7.1 Introduction

s.s.5(1)9 states that rules must be developed:

“...to determine if a development charge is payable in any particular case and to determine the amount of the charge, subject to the limitations set out in subsection 6.”

Paragraph 10 of the section goes on to state that the rules may provide for exemptions, phasing in and/or indexing of D.C.s.

s.s.5(6) establishes the following restrictions on the rules:

- the total of all D.C.s that would be imposed on anticipated development must not exceed the capital costs determined under 5(1) 2-8 for all services involved;
- if the rules expressly identify a type of development, they must not provide for it to pay D.C.s that exceed the capital costs that arise from the increase in the need for service for that type of development; however, this requirement does not relate to any particular development; and
- if the rules provide for a type of development to have a lower D.C. than is allowed, the rules for determining D.C.s may not provide for any resulting shortfall to be made up via other development.

With respect to “the rules,” Section 6 states that a D.C. by-law must expressly address the matters referred to above re s.s.5(1) paragraphs 9 and 10, as well as how the rules apply to the redevelopment of land.

The rules provided are based on the City’s existing policies; however, there are items under consideration at this time and these may be refined prior to adoption of the by-law.



7.2 D.C. By-law Structure

It is recommended that:

- the City uses a uniform City-wide D.C. calculation for all Municipal services except for water, wastewater, and stormwater services;
- the D.C. related to water, wastewater, and stormwater services, be imposed on an area-specific basis; and
- one Municipal D.C. by-law be used for all services.

7.3 D.C. By-law Rules

The following subsections set out the recommended rules governing the calculation, payment and collection of D.C.s in accordance with Section 6 of the D.C.A.

It is recommended that the following sections provide the basis for the D.C.s:

7.3.1 Payment in any Particular Case

In accordance with the D.C.A., s.2(2), a D.C. be calculated, payable and collected where the development requires one or more of the following:

- a) the passing of a zoning by-law or of an amendment to a zoning by-law under section 34 of the Planning Act;
- b) the approval of a minor variance under section 45 of the Planning Act;
- c) a conveyance of land to which a by-law passed under section 50(7) of the Planning Act applies;
- d) the approval of a plan of subdivision under section 51 of the Planning Act;
- e) a consent under section 53 of the Planning Act;
- f) the approval of a description under section 50 of the Condominium Act; or
- g) the issuing of a building permit under the Building Code Act in relation to a building or structure.



7.3.2 Determination of the Amount of the Charge

The following conventions be adopted:

- 1) Costs allocated to residential uses will be assigned to different types of residential units based on the average occupancy for each housing type constructed during the previous decade. Costs allocated to non-residential uses will be assigned based on the amount of square feet of gross floor area constructed for eligible uses (i.e. industrial, commercial and institutional).
- 2) Costs allocated to residential and non-residential uses are based upon a number of conventions, as may be suited to each municipal circumstance, e.g.
 - for Administration and Parking services the costs have been based on a population vs. employment growth ratio (89%/11% for residential and non-residential, respectively) over the 10-year forecast period;
 - for Outdoor Recreation services, a 5% non-residential attribution has been made to recognize use by the non-residential sector;
 - for Services Related to a Highway, Fire services, and Police services, a 90% residential/10% non-residential attribution has been made based on a population vs. employment growth ratio over the 13-year forecast period;
 - for urban area Stormwater services, an 85% residential/15% non-residential allocation has been made based on the land coverage within the urban area over the 13-year forecast period;
 - for Development Area 2 Stormwater services, a 96% residential/4% non-residential allocation has been made based on the land coverage within Development Area 2 over the 13-year forecast period;
 - for urban area Water and Wastewater services an 86% residential/14% non-residential allocation has been made based on population vs. employment growth over the urban 13-year forecast period; and
 - for Water and Wastewater services in Development Area 2, a 97% residential/3% non-residential allocation has been made based on population vs. employment growth over the 13-year urban forecast period in Development Area 2.



7.3.3 Application to Redevelopment of Land (Demolition and Conversion)

If a development involves the demolition of and replacement of a building or structure on the same site, or the conversion from one principal use to another, the developer shall be allowed a credit equivalent to:

- 1) the number of dwelling units demolished/converted multiplied by the applicable residential D.C. in place at the time the D.C. is payable; and/or
- 2) the gross floor area of the building demolished/converted multiplied by the current non-residential D.C. in place at the time the D.C. is payable.

The credit can, in no case, exceed the amount of D.C.s that would otherwise be payable.

7.3.4 Exemptions (full or partial)

a) Statutory exemptions

- industrial building additions of up to and including 50% of the existing gross floor area (defined in O.Reg. 82/98, s.1) of the building; for industrial building additions which exceed 50% of the existing gross floor area, only the portion of the addition in excess of 50% is subject to D.C.s (s.4(3)) of the D.C.A.;
- buildings or structures owned by and used for the purposes of any municipality, local board or Board of Education (s.3);
- residential development that results only in the enlargement of an existing dwelling unit, or that results only in the creation of up to two additional dwelling units (based on prescribed limits set out in s.2 of O.Reg. 82/98).

b) Non-statutory exemptions

- Non-residential Farm Building;
- Use of land that does not involve a building structure;
- Sarnia 402 Business Park area;
- Sarnia Business and Research Park area;
- Western University Research and Development Park area; and



- Temporary buildings and structures, non-serviced industrial buildings and structures, and airport hangars.

7.3.5 Phasing in

No provisions for phasing in the D.C. are provided in the D.C. by-law.

7.3.6 Timing of Collection

A D.C. that is applicable under Section 5 of the D.C.A. shall be calculated and payable:

- where a permit is required under the Building Code Act in relation to a building or structure, the owner shall pay the D.C. prior to the issuance of the first building permit prior to the commencement of development or redevelopment as the case may be; and
- despite the above, Council, from time to time and at any time, may enter into agreements providing for all or any part of a D.C. to be paid before or after it would otherwise be payable.

7.3.7 Indexing

Indexing of the D.C.s shall be implemented on a mandatory basis annually commencing on the first anniversary date of this by-law and each anniversary date thereafter, in accordance with the Statistics Canada Quarterly, Non-Residential Building Construction Price Index (Table 18-10-0135-01)¹ for the most recent year-over-year period.

7.3.8 The Applicable Areas

The charges developed herein provide for varying charges within the City, as follows:

- All Municipal-wide Services – the full residential and non-residential charge will be imposed on all lands within the City;

¹ O.Reg. 82/98 referenced “The Statistics Canada Quarterly, Construction Price Statistics, catalogue number 62-007” as the index source. Since implementation, Statistics Canada has modified this index twice and the above-noted index is the most current. The draft by-law provided herein refers to O.Reg. 82/98 to ensure traceability should this index continue to be modified over time.



- Urban area Water, Wastewater, and Stormwater Services – the full residential and non-residential charge will be imposed on the specific areas of the City, as denoted in the D.C. by-law; and
- Development Area 2 Water, Wastewater, and Stormwater Services – the full residential and non-residential charge will be imposed on development in Development Area 2, as denoted in the D.C. by-law.

7.4 Other D.C. By-law Provisions

It is recommended that:

7.4.1 Categories of Services for Reserve Fund and Credit Purposes

The City's D.C. collections are currently reserved in 14 separate reserve funds: Roads, Public Works, County Roads, Transit, Parking, Fire Protection Services, Police Services, Outdoor Recreation Services, Indoor Recreation Services, Library Services, Administration, Water Services, Wastewater Services, and Stormwater Services. It is recommended that the City continue with these reserve funds and establish new reserve funds for the Area 2 Water, Wastewater, and Stormwater services. Appendix F outlines the reserve fund policies that the City is required to follow as per the D.C.A.

7.4.2 By-law In-force Date

A by-law under the D.C.A. comes into force on the day after which the by-law is passed by Council.

7.4.3 Minimum Interest Rate Paid on Refunds and Charged for Inter-Reserve Fund Borrowing

The minimum interest rate is the Bank of Canada rate on the day on which the by-law comes into force (as per s.11 of O.Reg. 82/98).

7.4.4 Area Rating

As noted earlier, Bill 73 has introduced two new sections where Council must consider the use of area specific charges:

1. Section 2(9) of the Act now requires a municipality to implement area-specific D.C.s for either specific services which are prescribed and/or for specific



municipalities which are to be regulated (note that at this time, no municipalities or services are prescribed by the Regulations).

2. Section 10(2)c.1 of the D.C.A. requires that “the development charges background study shall include consideration of the use of more than one development charge by-law to reflect different needs for services in different areas.”

In regard to the first item, there are no services or specific municipalities identified in the regulations which must be area-rated. The second item requires Council to consider the use of area-rating.

At present, the City’s by-law does provide for area-rating for water, wastewater, and stormwater services. All other City services are recovered on a uniform, City-wide basis. There have been several reasons why area-rating has not been imposed on these services including:

1. All City services, with the exception of water, wastewater and stormwater, require that the average 10-year service standard be calculated. This average service standard multiplied by growth in the City, establishes an upper ceiling on the amount of funds which can be collected from all developing landowners. Section 4(4) of O. Reg. 82/98 provides that “...if a development charge by-law applies to a part of the municipality, the level of service and average level of service cannot exceed that which would be determined if the by-law applied to the whole municipality.” Put in layman terms, the average service standard multiplied by the growth within the specific area, would establish an area specific ceiling which would significantly reduce the total revenue recoverable for the City hence potentially resulting in D.C. revenue shortfalls and impacts on property taxes.
2. Extending on item 1, attempting to impose an area charge potentially causes equity issues in transitioning from a City-wide approach to an area specific approach. For example, if all services were now built (and funded) within area A (which is 75% built out) and this was funded with some revenues from areas B and C, moving to an area rating approach would see Area A contribute no funds to the costs of services in Areas B & C. The development charges would be lower in Area A (as all services are now funded) and higher in B and C. As well,



funding shortfalls may then potentially encourage the municipality to provide less services to B and C due to reduced revenue.

3. Many services which are provided (roads, parks, recreation facilities, library) are not restricted to one specific area and are often used by all residents. For example, arenas located in different parts of the City will be used by residents from all areas depending on the programming of the facility (i.e. a public skate is available each night, but at a different arena; hence usage of any one facility at any given time is based on programming availability).

For the reasons noted above, it is recommended that Council continue the approach to calculate the charges on an area-specific basis for water, wastewater, and stormwater services, and on a uniform City-wide basis for all other services.

7.5 Other Recommendations

It is recommended that Council:

“Whenever appropriate, request that grants, subsidies and other contributions be clearly designated by the donor as being to the benefit of existing development or new development, as applicable;”

“Adopt the assumptions contained in this study as an ‘anticipation’ with respect to capital grants, subsidies and other contributions;”

“Continue the approach to calculate the D.C.s on an area-specific basis for water, wastewater, and stormwater services, and on a uniform City-wide basis for all other services;”

“Approve the capital project listing set out in Chapter 5 of the D.C.s Background Study dated March 25, 2019, subject to further annual review during the capital budget process;”

“Approve the D.C.s Background Study dated March 25, 2019, as amended (if applicable);”

“Give consideration and direction on non-statutory exemptions for the D.C. By-law;



“Determine that no further public meeting is required;” and
“Approve the D.C. By-law as set out in Appendix G.”



Chapter 8

By-law Implementation



8. By-law Implementation

8.1 Public Consultation Process

8.1.1 Introduction

This chapter addresses the mandatory, formal public consultation process (Section 8.1.2), as well as the optional, informal consultation process (Section 8.1.3). The latter is designed to seek the co-operation and participation of those involved, in order to produce the most suitable policy. Section 8.1.4 addresses the anticipated impact of the D.C. on development from a generic viewpoint.

8.1.2 Public Meeting of Council

Section 12 of the D.C.A. indicates that before passing a D.C. by-law, Council must hold at least one public meeting, giving at least 20 clear days' notice thereof, in accordance with the Regulation. Council must also ensure that the proposed by-law and background report are made available to the public at least two weeks prior to the (first) meeting.

Any person who attends such a meeting may make representations related to the proposed by-law.

If a proposed by-law is changed following such a meeting, Council must determine whether a further meeting (under this section) is necessary (i.e. if the proposed by-law which is proposed for adoption has been changed in any respect, Council should formally consider whether an additional public meeting is required, incorporating this determination as part of the final by-law or associated resolution. It is noted that Council's decision, once made, is final and not subject to review by a Court or the Local Planning Appeal Tribunal (L.P.A.T.) (formerly the Ontario Municipal Board (O.M.B.)).

8.1.3 Other Consultation Activity

There are three broad groupings of the public who are generally the most concerned with City D.C. policy:

1. The first grouping is the residential development community, consisting of land developers and builders, who are typically responsible for generating the majority



of the D.C. revenues. Others, such as realtors, are directly impacted by D.C. policy. They are, therefore, potentially interested in all aspects of the charge, particularly the quantum by unit type, projects to be funded by the D.C. and the timing thereof, and City policy with respect to development agreements, D.C. credits and front-ending requirements.

2. The second public grouping embraces the public at large and includes taxpayer coalition groups and others interested in public policy.
3. The third grouping is the industrial/commercial/institutional development sector, consisting of land developers and major owners or organizations with significant construction plans, such as hotels, entertainment complexes, shopping centres, offices, industrial buildings and institutions. Also involved are organizations such as Industry Associations, the Chamber of Commerce, the Board of Trade and the Economic Development Agencies, who are all potentially interested in City D.C. policy. Their primary concern is frequently with the quantum of the charge, gross floor area exclusions such as basements, mechanical or indoor parking areas, or exemptions and phase-in or capping provisions in order to moderate the impact.

8.2 Anticipated Impact of the Charge on Development

The establishment of sound D.C. policy often requires the achievement of an acceptable balance between two competing realities. The first is that high non-residential D.C.s can, to some degree, represent a barrier to increased economic activity and sustained industrial/commercial growth, particularly for capital intensive uses. Also, in many cases, increased residential D.C.s can ultimately be expected to be recovered via higher housing prices and can impact project feasibility in some cases (e.g. rental apartments).

On the other hand, D.C.s or other City capital funding sources need to be obtained in order to help ensure that the necessary infrastructure and amenities are installed. The timely installation of such works is a key initiative in providing adequate service levels and in facilitating strong economic growth, investment and wealth generation.



8.3 Implementation Requirements

8.3.1 Introduction

Once the City has calculated the charge, prepared the complete background study, carried out the public process and passed a new by-law, the emphasis shifts to implementation matters.

These include notices, potential appeals and complaints, credits, front-ending agreements, subdivision agreement conditions and finally the collection of revenues and funding of projects.

The sections which follow overview the requirements in each case.

8.3.2 Notice of Passage

In accordance with s.13 of the D.C.A., when a D.C. by-law is passed, the City clerk shall give written notice of the passing and of the last day for appealing the by-law (the day that is 40 days after the day it was passed). Such notice must be given no later than 20 days after the day the by-law is passed (i.e. as of the day of newspaper publication or the mailing of the notice).

Section 10 of O.Reg. 82/98 further defines the notice requirements which are summarized as follows:

- notice may be given by publication in a newspaper which is (in the Clerk's opinion) of sufficient circulation to give the public reasonable notice, or by personal service, fax or mail to every owner of land in the area to which the by-law relates;
- s.s.10(4) lists the persons/organizations who must be given notice; and
- s.s.10(5) lists the eight items which the notice must cover.

8.3.3 By-law Pamphlet

In addition to the “notice” information, the City must prepare a “pamphlet” explaining each D.C. by-law in force, setting out:

- a description of the general purpose of the D.C.s;



- the “rules” for determining if a charge is payable in a particular case and for determining the amount of the charge;
- the services to which the D.C.s relate; and
- a general description of the general purpose of the Treasurer’s statement and where it may be received by the public.

Where a by-law is not appealed to the L.P.A.T., the pamphlet must be readied within 60 days after the by-law comes into force. Later dates apply to appealed by-laws.

The City must give one copy of the most recent pamphlet without charge, to any person who requests one.

8.3.4 Appeals

Sections 13 to 19 of the D.C.A. set out the requirements relative to making and processing a D.C. by-law appeal and L.P.A.T. Hearing in response to an appeal. Any person or organization may appeal a D.C. by-law to the L.P.A.T. by filing a notice of appeal with the City clerk, setting out the objection to the by-law and the reasons supporting the objection. This must be done by the last day for appealing the by-law, which is 40 days after the by-law is passed.

The City is carrying out a public consultation process, in order to address the issues that come forward as part of that process, thereby avoiding or reducing the need for an appeal to be made.

8.3.5 Complaints

A person required to pay a D.C., or his agent, may complain to the City Council imposing the charge that:

- the amount of the charge was incorrectly determined;
- the reduction to be used against the D.C. was incorrectly determined; or
- there was an error in the application of the D.C.

Sections 20 to 25 of the D.C.A. set out the requirements that exist, including the fact that a complaint may not be made later than 90 days after a D.C. (or any part of it) is payable. A complainant may appeal the decision of City Council to the L.P.A.T.



8.3.6 Credits

Sections 38 to 41 of the D.C.A. set out a number of credit requirements, which apply where a City agrees to allow a person to perform work in the future that relates to a service in the D.C. by-law.

These credits would be used to reduce the amount of D.C.s to be paid. The value of the credit is limited to the reasonable cost of the work which does not exceed the average level of service. The credit applies only to the service to which the work relates, unless the City agrees to expand the credit to other services for which a D.C. is payable.

8.3.7 Front-Ending Agreements

The City and one or more landowners may enter into a front-ending agreement which provides for the costs of a project which will benefit an area in the City to which the D.C. by-law applies. Such an agreement can provide for the costs to be borne by one or more parties to the agreement who are, in turn, reimbursed in future by persons who develop land defined in the agreement.

Part III of the D.C.A. (Sections 44 to 58) addresses front-ending agreements and removes some of the obstacles to their use which were contained in the D.C.A., 1989. Accordingly, the City assesses whether this mechanism is appropriate for its use, as part of funding projects prior to City funds being available.

8.3.8 Severance and Subdivision Agreement Conditions

Section 59 of the D.C.A. prevents a municipality from imposing directly or indirectly, a charge related to development or a requirement to construct a service related to development, by way of a condition or agreement under s.51 or s.53 of the Planning Act, except for:

- “local services, related to a plan of subdivision or within the area to which the plan relates, to be installed or paid for by the owner as a condition of approval under section 51 of the Planning Act;” and
- “local services to be installed or paid for by the owner as a condition of approval under section 53 of the Planning Act.”

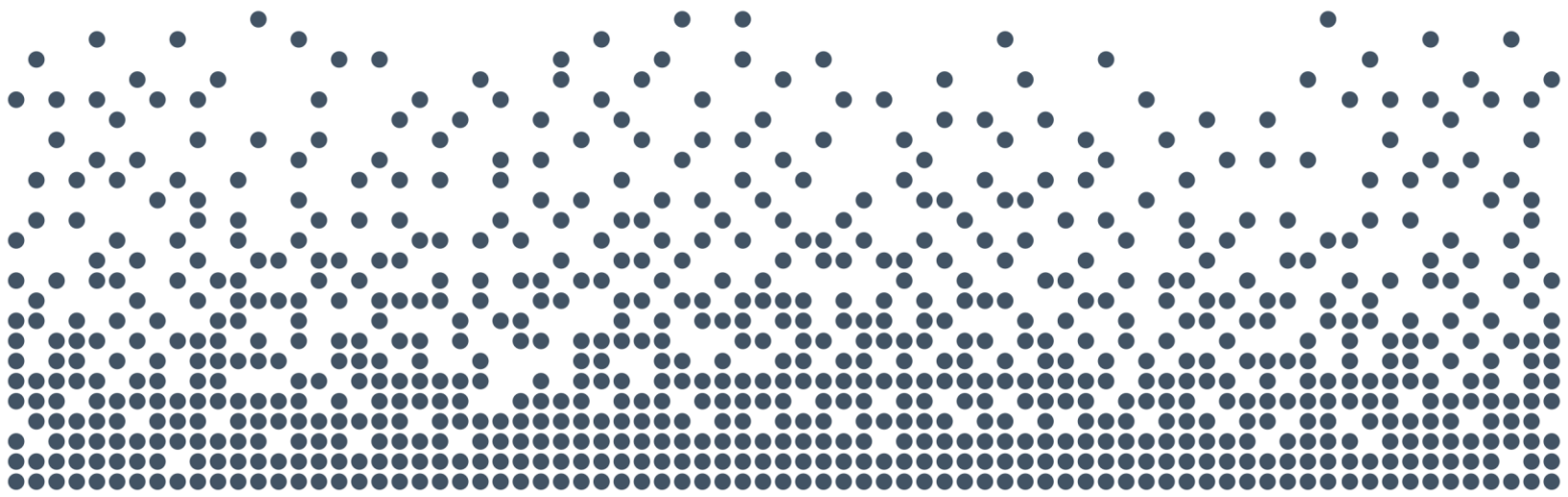


It is also noted that s.s.59(4) of the D.C.A. requires that the municipal approval authority for a draft plan of subdivision under s.s.51(31) of the Planning Act, use its power to impose conditions to ensure that the first purchaser of newly subdivided land is informed of all the D.C.s related to the development, at the time the land is transferred.

In this regard, if the City in question is a commenting agency, in order to comply with subsection 59(4) of the D.C.A. it would need to provide to the approval authority, information regarding the applicable City D.C.s related to the site.

If the City is an approval authority for the purposes of section 51 of the Planning Act, it would be responsible to ensure that it collects information from all entities which can impose a D.C.

The most effective way to ensure that purchasers are aware of this condition would be to require it as a provision in a registered subdivision agreement, so that any purchaser of the property would be aware of the charges at the time the title was searched prior to closing a transaction conveying the lands.



Appendices



Appendix A

Background Information on Residential and Non- Residential Growth Forecast



Appendix A: Background Information on Residential and Non-Residential Growth Forecast



**Schedule 1
City of Sarnia
Residential Growth Forecast Summary**

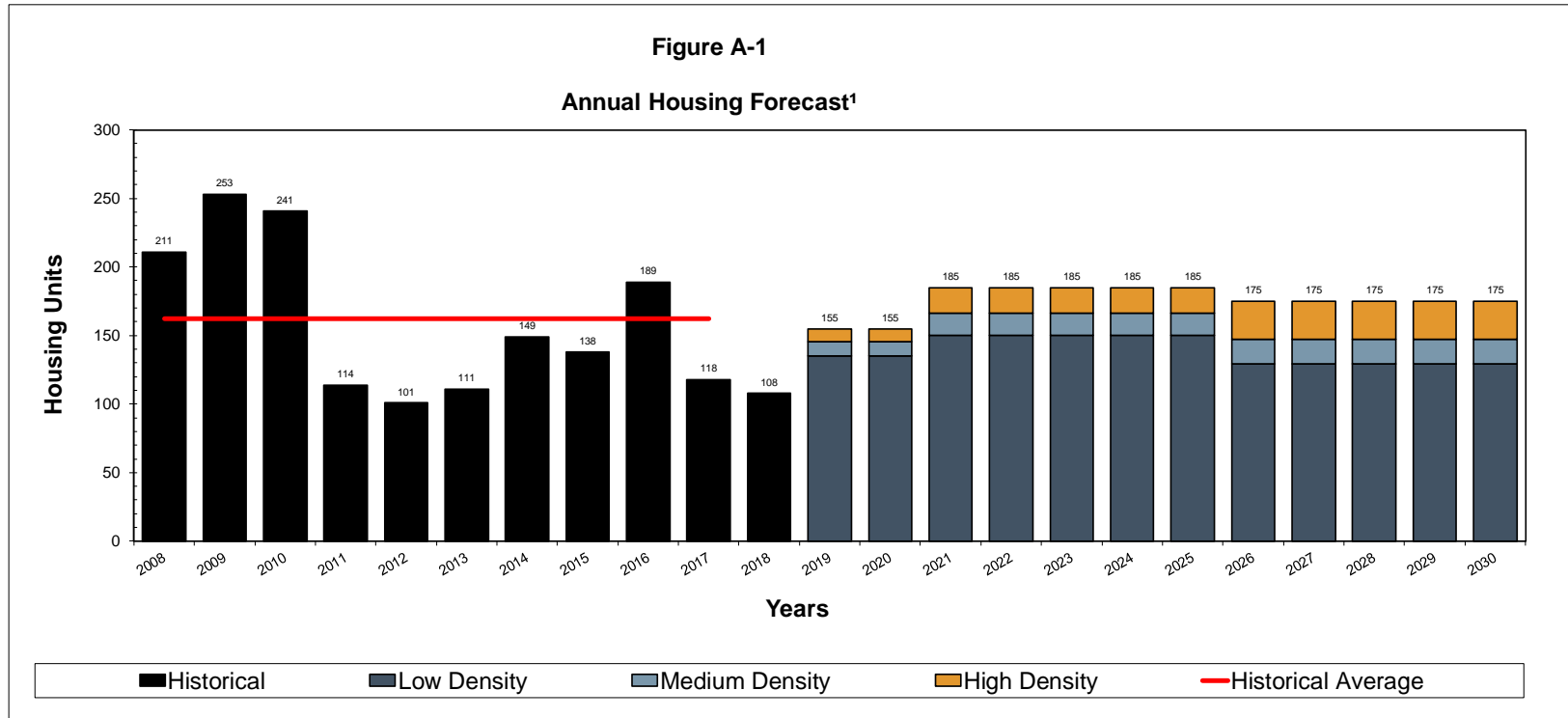
Year	Population (Including Census Undercount) ¹	Excluding Census Undercount			Housing Units					Person Per Unit (P.P.U.): Total Population/ Total Households	
		Population	Institutional Population	Population Excluding Institutional Population	Singles & Semi-Detached	Multiple Dwellings ²	Apartments ³	Other	Total Households		
Historical	<i>Mid 2006</i>	74,350	71,419	1,369	70,050	21,385	2,545	6,020	165	30,115	2.372
	<i>Mid 2011</i>	75,330	72,366	1,361	71,005	22,265	2,548	6,395	168	31,376	2.306
	<i>Mid 2016</i>	74,530	71,594	1,224	70,370	22,730	2,565	6,535	105	31,935	2.242
Forecast	<i>Early 2019</i>	74,310	71,387	1,227	70,160	23,045	2,607	6,539	105	32,296	2.210
	<i>Early 2029</i>	75,080	72,121	1,240	70,881	24,434	2,760	6,724	105	34,023	2.120
	<i>Mid 2031</i>	75,260	72,300	1,242	71,058	24,757	2,803	6,794	105	34,460	2.098
Incremental	Mid 2006 - Mid 2011	980	947	-8	955	880	3	375	3	1,261	
	Mid 2011 - Mid 2016	-800	-772	-137	-635	465	17	140	-63	559	
	Mid 2016 - Early 2019	-220	-207	3	-210	315	42	4	0	361	
	Early 2019 - Early 2029	770	734	13	721	1,389	153	185	0	1,727	
	Early 2019 - Mid 2031	950	913	15	898	1,712	196	255	0	2,164	

Source: Derived from Lambton County Official Plan, updated April 30, 2018, Lambton County Population Projections for the City of Sarnia, updated for 2016 Census, and City of Sarnia Residential and Commercial Land Needs Assessment Update by Monteith Brown Planning Consultants, July 5, 2013, by Watson & Associates Economists Ltd.

¹ Census undercount estimated at approximately 4.1%. Note: Population including the undercount has been rounded.

² Includes townhouses and apartments in duplexes.

³ Includes bachelor, 1-bedroom and 2-bedroom+ apartments.



Source: Historical housing activity derived from City of Sarnia Planning and Building Department permit data, 2008-2017, and 2018 estimated from monthly building permit data.
1. Growth forecast represents calendar year.



Schedule 2
City of Sarnia
Estimate of the Anticipated Amount, Type and Location of
Residential Development for Which Development Charges can be Imposed

Development Location	Timing	Single & Semi-Detached	Multiples ¹	Apartments ²	Total Residential Units	Gross Population In New Units	Existing Unit Population Change	Net Population Increase, Excluding Institutional	Institutional Population	Net Population Including Institutional	Single Detached Equivalent Households
Bright's Grove	2019 - 2029	69	0	0	69	188	-223	-35	1	-34	69
	2019 - 2031	86	0	0	86	232	-278	-46	1	-46	86
Development Area 1	2019 - 2029	554	107	0	661	1,711	-120	1,591	0	1,591	632
	2019 - 2031	658	138	0	795	2,051	-150	1,901	0	1,902	758
Development Area 2	2019 - 2029	668	18	0	686	1,844	-40	1,804	0	1,804	681
	2019 - 2031	849	24	0	873	2,345	-50	2,295	0	2,296	867
Urban Area	2019 - 2029	42	27	185	254	472	-2,860	-2,388	11	-2,377	174
	2019 - 2031	51	35	255	342	629	-3,567	-2,938	13	-2,925	232
Suburban Area ³	2019 - 2029	42	0	0	42	113	-149	-36	1	-36	42
	2019 - 2031	51	0	0	51	139	-186	-47	1	-46	51
Total Urban Serviced Area ⁴	2019 - 2029	1,333	153	185	1,671	4,214	-3,243	972	12	984	1,557
	2019 - 2031	1,644	196	255	2,096	5,257	-4,044	1,213	14	1,227	1,942
Rural	2019 - 2029	14	0	0	14	38	-252	-215	0	-215	14
	2019 - 2031	17	0	0	17	46	-315	-268	0	-268	17
City of Sarnia	2019 - 2029	1,389	153	185	1,727	4,365	-3,644	721	13	734	1,613
	2019 - 2031	1,712	196	255	2,164	5,443	-4,545	898	15	913	2,011

Source: Derived from City of Sarnia Planning and Building Department historical development activity and development application data by Watson & Associates Economists Ltd., 2019.

¹ Includes townhouses and apartments in duplexes.

² Includes accessory apartments, bachelor, 1-bedroom and 2-bedroom+ apartments.

³ Suburban Area is defined as partially serviced with full water and partial stormwater.

⁴ Total Urban Serviced Area is defined as Bright's Grove, Development Area 1, Development Area 2 and Urban Area.

Note: Numbers may not add to totals due to rounding.



**Schedule 3
City of Sarnia
Current Year Growth Forecast
Early 2016 to Early 2019**

		Population
Mid 2016 Population		71,594
Occupants of New Housing Units, Mid 2016 to Early 2019	<i>Units (2)</i>	361
	<i>multiplied by P.P.U. (3)</i>	2,694
	<i>gross population increase</i>	973
		973
Occupants of New Equivalent Institutional Units, Mid 2016 to Early 2019	<i>Units</i>	2
	<i>multiplied by P.P.U. (3)</i>	1,100
	<i>gross population increase</i>	2
		2
Decline in Housing Unit Occupancy, Mid 2016 to Early 2019	<i>Units (4)</i>	31,935
	<i>multiplied by P.P.U. decline rate (5)</i>	-0.037
	<i>total decline in population</i>	-1,182
		-1,182
Population Estimate to Early 2019		71,387
<i>Net Population Increase, Mid 2016 to Early 2019</i>		-207

(1) 2016 population based on Statistics Canada Census unadjusted for Census undercount.

(2) Estimated residential units constructed, Mid-2016 to the beginning of the growth period assuming a six-month lag between construction and occupancy.

(3) Average number of persons per unit (P.P.U.) is assumed to be:

Structural Type	Persons Per Unit ¹ (P.P.U.)	% Distribution of Estimated Units ²	Weighted Persons Per Unit Average
<i>Singles & Semi Detached</i>	2.819	87%	2.460
<i>Multiples (6)</i>	1.867	12%	0.217
<i>Apartments (7)</i>	1.550	1%	0.017
Total		100%	2.694

¹ Based on 2016 Census custom database

² Based on Building permit/completion activity

(4) 2016 households taken from Statistics Canada Census.

(5) Decline occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions.

(6) Includes townhouses and apartments in duplexes.

(7) Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

Note: Numbers may not add to totals due to rounding.



**Schedule 4
City of Sarnia
Ten Year Growth Forecast
Early 2019 to Early 2029**

		Population
Early 2019 Population		71,387
Occupants of New Housing Units, Early 2019 to Early 2029	<i>Units (2)</i>	1,727
	<i>multiplied by P.P.U. (3)</i>	2,528
	<i>gross population increase</i>	4,365
Occupants of New Equivalent Institutional Units, Early 2019 to Early 2029	<i>Units</i>	12
	<i>multiplied by P.P.U. (3)</i>	1,100
	<i>gross population increase</i>	13
Decline in Housing Unit Occupancy, Early 2019 to Early 2029	<i>Units (4)</i>	32,296
	<i>multiplied by P.P.U. decline rate (5)</i>	-0.113
	<i>total decline in population</i>	-3,644
Population Estimate to Early 2029		72,121
<i>Net Population Increase, Early 2019 to Early 2029</i>		734

(1) Early 2019 Population based on:

2016 Population (71,594) + Mid 2016 to Early 2019 estimated housing units to beginning of forecast period (361 x 2.694 = 973) + (2 x 1.100 = 2) + (31,935 x -0.037 = -1,182) = 71,387

(2) Based upon forecast building permits/completions assuming a lag between construction and occupancy.

(3) Average number of persons per unit (p.p.u.) is assumed to be:

Structural Type	Persons Per Unit ¹ (P.P.U.)	% Distribution of Estimated Units ²	Weighted Persons Per Unit Average
<i>Singles & Semi Detached</i>	2.706	80%	2.177
<i>Multiples (6)</i>	1.974	9%	0.175
<i>Apartments (7)</i>	1.647	11%	0.177
<i>one bedroom or less</i>	1.226		
<i>two bedrooms or more</i>	1.858		
Total		100%	2.528

¹ Persons per unit based on adjusted Statistics Canada Custom 2016 Census database.

² Forecast unit mix based upon historical trends and housing units in the development process.

(4) Early 2019 households based upon 31,935 (2016 Census) + 361 (Mid 2016 to Early 2019 unit estimate) = 32,296

(5) Decline occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions.

(6) Includes townhouses and apartments in duplexes.

(7) Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

Note: Numbers may not add to totals due to rounding.



**Schedule 5
City of Sarnia
2031 Growth Forecast
Early 2019 to Mid 2031**

		Population
Early 2019 Population		71,387
Occupants of New Housing Units, 2019 to 2031	<i>Units (2)</i>	2,164
	<i>multiplied by P.P.U. (3)</i>	2,515
	<i>gross population increase</i>	5,443
		5,443
Occupants of New Equivalent Institutional Units, 2019 to 2031	<i>Units</i>	14
	<i>multiplied by P.P.U. (3)</i>	1,100
	<i>gross population increase</i>	15
		15
Decline in Housing Unit Occupancy, 2019 to 2031	<i>Units (4)</i>	32,296
	<i>multiplied by P.P.U. decline rate (5)</i>	-0.141
	<i>total decline in population</i>	-4,545
		-4,545
Population Estimate to 2031		72,300
<i>Net Population Increase, 2019 to 2031</i>		913

(1) Early 2019 Population based on:

2016 Population (71,594) + Mid 2016 to Early 2019 estimated housing units to beginning of forecast period (361 x 2.694 = 973) + (2 x 1.100 = 2)
+ (31,935 x -0.037 = -1,182) = 71,387

(2) Based upon forecast building permits/completions assuming a lag between construction and occupancy.

(3) Average number of persons per unit (p.p.u.) is assumed to be:

Structural Type	Persons Per Unit ¹ (P.P.U.)	% Distribution of Estimated Units ²	Weighted Persons Per Unit Average
<i>Singles & Semi Detached</i>	2.706	79%	2.142
<i>Multiples (6)</i>	1.974	9%	0.179
<i>Apartments (7)</i>	1.647	12%	0.194
<i>one bedroom or less</i>	1.226		
<i>two bedrooms or more</i>	1.858		
Total		100%	2.515

¹ Persons per unit based on adjusted Statistics Canada Custom 2016 Census database.

² Forecast unit mix based upon historical trends and housing units in the development process.

(4) Early 2019 households based upon 31,935 (2016 Census) + 361 (Mid 2016 to Early 2019 unit estimate) = 32,296

(5) Decline occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions.

(6) Includes townhouses and apartments in duplexes.

(7) Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

Note: Numbers may not add to totals due to rounding.



Schedule 6a
City of Sarnia
Summary of Active Development Applications, Intensification and Residential Vacant
Land Supply Potential as of 2018¹
City-Wide Total

Stage of Development	Density Type			
	Singles & Semi-Detached	Multiples ²	Apartments ³	Total
Registered Not Built	152	0	0	152
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>
Draft Plans Approved	805	195	0	1,000
<i>% Breakdown</i>	<i>81%</i>	<i>20%</i>	<i>0%</i>	<i>100%</i>
Application Under Review	88	59	27	174
<i>% Breakdown</i>	<i>51%</i>	<i>34%</i>	<i>16%</i>	<i>100%</i>
Vacant lands designated for Residential	1,216	106	0	1,322
<i>% Breakdown</i>	<i>92%</i>	<i>8%</i>	<i>0%</i>	<i>100%</i>
Additional Intensification	351	15	1,289	1,655
<i>% Breakdown</i>	<i>21%</i>	<i>1%</i>	<i>78%</i>	<i>100%</i>
Total	2,612	375	1,316	4,303
<i>% Breakdown</i>	<i>61%</i>	<i>9%</i>	<i>31%</i>	<i>100%</i>

Schedule 6b
City of Sarnia
Summary of Active Development Applications, Intensification and Residential Vacant
Land Supply Potential as of 2018
Bright's Grove

Stage of Development	Density Type			
	Singles & Semi-Detached	Multiples ²	Apartments ³	Total
Registered Not Built	28	0	0	28
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>
Draft Plans Approved	0	0	0	0
<i>% Breakdown</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
Application Under Review	73	0	0	73
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>
Vacant lands designated for Residential	0	0	0	0
<i>% Breakdown</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
Additional Intensification	15	0	0	15
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>
Total	116	0	0	116
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>

Source: City of Sarnia Planning and Building Department, September 2018.

¹ Schedule 2 provides an estimate of the anticipated amount, type and location of residential development to 2031 for the City of Sarnia which is estimated at 2,164 units.

² Includes townhomes and apartments in duplexes.

³ Includes bachelor, 1 bedroom and 2 bedroom+ apartments.



**Schedule 6c
City of Sarnia**

**Summary of Active Development Applications, Intensification and Residential Vacant
Land Supply Potential as of 2018**

Development Area 1

Stage of Development	Density Type			
	Singles & Semi-Detached	Multiples ²	Apartments ³	Total
Registered Not Built	82	0	0	82
<i>% Breakdown</i>	100%	0%	0%	100%
Draft Plans Approved	209	161	0	370
<i>% Breakdown</i>	56%	44%	0%	100%
Application Under Review	10	0	0	10
<i>% Breakdown</i>	100%	0%	0%	100%
Vacant lands designated for Residential	413	29	0	442
<i>% Breakdown</i>	93%	7%	0%	100%
Additional Intensification	0	0	0	0
<i>% Breakdown</i>	-	-	-	-
Total	714	190	0	904
<i>% Breakdown</i>	79%	21%	0%	100%

**Schedule 6d
City of Sarnia**

**Summary of Active Development Applications, Intensification and Residential Vacant
Land Supply Potential as of 2018**

Development Area 2

Stage of Development	Density Type			
	Singles & Semi-Detached	Multiples ²	Apartments ³	Total
Registered Not Built	10	0	0	10
<i>% Breakdown</i>	100%	0%	0%	100%
Draft Plans Approved	586	34	0	620
<i>% Breakdown</i>	95%	5%	0%	100%
Application Under Review	0	0	0	0
<i>% Breakdown</i>	-	-	-	-
Vacant lands designated for Residential	803	77	0	880
<i>% Breakdown</i>	91%	9%	0%	100%
Additional Intensification	0	0	0	0
<i>% Breakdown</i>	-	-	-	-
Total	1,399	111	0	1,510
<i>% Breakdown</i>	93%	7%	0%	100%



Schedule 6e
City of Sarnia
Summary of Active Development Applications, Intensification and Residential Vacant
Land Supply Potential as of 2018
Urban Area

Stage of Development	Density Type			
	Singles & Semi-Detached	Multiples ²	Apartments ³	Total
Registered Not Built	22	0	0	22
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>
Draft Plans Approved	3	0	0	3
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>
Application Under Review	5	59	27	91
<i>% Breakdown</i>	<i>5%</i>	<i>65%</i>	<i>30%</i>	<i>100%</i>
Vacant lands designated for Residential	0	0	0	0
<i>% Breakdown</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
Additional Intensification	241	15	1,289	1,545
<i>% Breakdown</i>	<i>16%</i>	<i>1%</i>	<i>83%</i>	<i>100%</i>
Total	271	74	1,316	1,661
<i>% Breakdown</i>	<i>16%</i>	<i>4%</i>	<i>79%</i>	<i>100%</i>

Note: The above table does not include 32 units in a former church building submitted in late September, 2018. It also does not include 6 single detached dwelling lots proposed, which have not been considered by Council. The applications under review includes 5 single detached dwellings that were approved (OPA/Rezoning/Plan of Subdivision) but are currently at the Ontario Municipal Board. Applications under review also includes 59 townhouse units and 27 apartments units proposed in the Commercial Centre area of the City. These applications have not yet been considered by Council.

Schedule 6f
City of Sarnia
Summary of Active Development Applications, Intensification and Residential Vacant
Land Supply Potential as of 2018
Suburban Area

Stage of Development	Density Type			
	Singles & Semi-Detached	Multiples ²	Apartments ³	Total
Registered Not Built	10	0	0	10
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>
Draft Plans Approved	7	0	0	7
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>
Application Under Review	0	0	0	0
<i>% Breakdown</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
Vacant lands designated for Residential	0	0	0	0
<i>% Breakdown</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
Additional Intensification	95	0	0	95
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>
Total	112	0	0	112
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>



Schedule 7

City of Sarnia
 Historical Residential Building Permits
 Years 2008 to 2018

Year	Residential Building Permits			
	Singles & Semi Detached	Multiples ¹	Apartments ²	Total
2008	197	14	0	211
2009	135	7	111	253
2010	150	10	81	241
2011	102	12	0	114
2012	97	4	0	101
Sub-total	681	47	192	920
Average (2008 - 2012)	136	9	38	184
% Breakdown	74.0%	5.1%	20.9%	100.0%
2013	98	6	7	111
2014	131	18	0	149
2015	132	6	0	138
2016	151	38	0	189
2017	118	0	0	118
Sub-total	630	68	7	705
Average (2013 - 2017)	126	14	1	141
% Breakdown	89.4%	9.6%	1.0%	100.0%
2008 - 2017				
Total	1,311	115	199	1,625
Average	131	12	20	163
% Breakdown	80.7%	7.1%	12.2%	100.0%

Source: City of Sarnia Planning and Building Department.

¹ Includes townhouses and apartments in duplexes.

² Includes bachelor, 1 bedroom and 2 bedroom+ apartments.



**Schedule 8a
City of Sarnia
Persons Per Unit By Age and Type of Dwelling
(2016 Census)**

Age of Dwelling	Singles and Semi-Detached						15 Year Historic Average	15 Year Forecast ²
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	-	1.722	2.585	4.296	2.819		
6-10	-	-	1.520	2.881	3.636	2.744		
11-15	-	-	1.964	2.843	3.381	2.745	2.769	2.706
16-20	-	-	1.391	2.631	3.667	2.553		
20-25	-	-	1.571	2.694	3.750	2.720		
25-35	-	-	1.963	2.727	3.483	2.763		
35+	-	1.349	1.675	2.426	3.290	2.307		
Total	-	1.342	1.682	2.510	3.509	2.426		

Age of Dwelling	Apartments ¹						15 Year Historic Average	15 Year Forecast ²
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	1.000	-	-	-	1.550		
6-10	-	1.133	1.774	-	-	1.625		
11-15	-	-	1.500	-	-	1.636	1.604	1.647
16-20	-	1.077	1.765	-	-	1.441		
20-25	-	1.167	1.538	-	-	1.400		
25-35	-	1.186	1.735	-	-	1.464		
35+	1.071	1.160	1.690	2.463	-	1.454		
Total	1.400	1.156	1.698	2.147	-	1.465		

Age of Dwelling	All Density Types					
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total
1-5	-	1.182	1.793	2.517	4.462	2.590
6-10	-	1.188	1.623	2.832	3.636	2.473
11-15	-	1.250	1.769	2.855	3.333	2.518
16-20	-	1.000	1.667	2.664	3.857	2.352
20-25	-	1.219	1.568	2.682	3.800	2.368
25-35	-	1.167	1.872	2.683	3.525	2.426
35+	0.929	1.194	1.699	2.439	3.290	2.114
Total	0.947	1.189	1.709	2.511	3.532	2.204

¹ Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

² PPU has been forecasted based on 2001 to 2016 historical trends.

Note: Does not include Statistics Canada data classified as 'Other'

P.P.U. Not calculated for samples less than or equal to 50 dwelling units, and does not include institutional population.



**Schedule 8b
Lambton County
Persons Per Unit By Age and Type of Dwelling
(2016 Census)**

Age of Dwelling	Multiples ¹						15 Year Historic Average	15 Year Forecast ²
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	-	-	-	-	1.867		
6-10	-	-	-	1.909	-	2.174		
11-15	-	-	-	-	-	1.882	1.974	1.974
16-20	-	-	1.750	3.182	-	2.286		
20-25	-	-	1.818	2.500	-	2.171		
25-35	-	-	2.146	2.462	-	2.236		
35+	-	1.262	1.868	2.658	-	2.115		
Total	0.636	1.289	1.884	2.593	3.167	2.131		

Age of Dwelling	All Density Types					
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total
1-5	-	1.333	1.847	2.684	4.000	2.631
6-10	-	1.280	1.752	2.756	3.926	2.585
11-15	-	1.353	1.837	2.832	3.340	2.611
16-20	-	1.118	1.700	2.636	3.625	2.432
20-25	-	1.224	1.759	2.690	3.732	2.475
25-35	-	1.156	1.846	2.637	3.373	2.387
35+	1.600	1.196	1.718	2.476	3.396	2.199
Total	1.429	1.197	1.740	2.543	3.518	2.288

¹ Includes townhouses and apartments in duplexes.

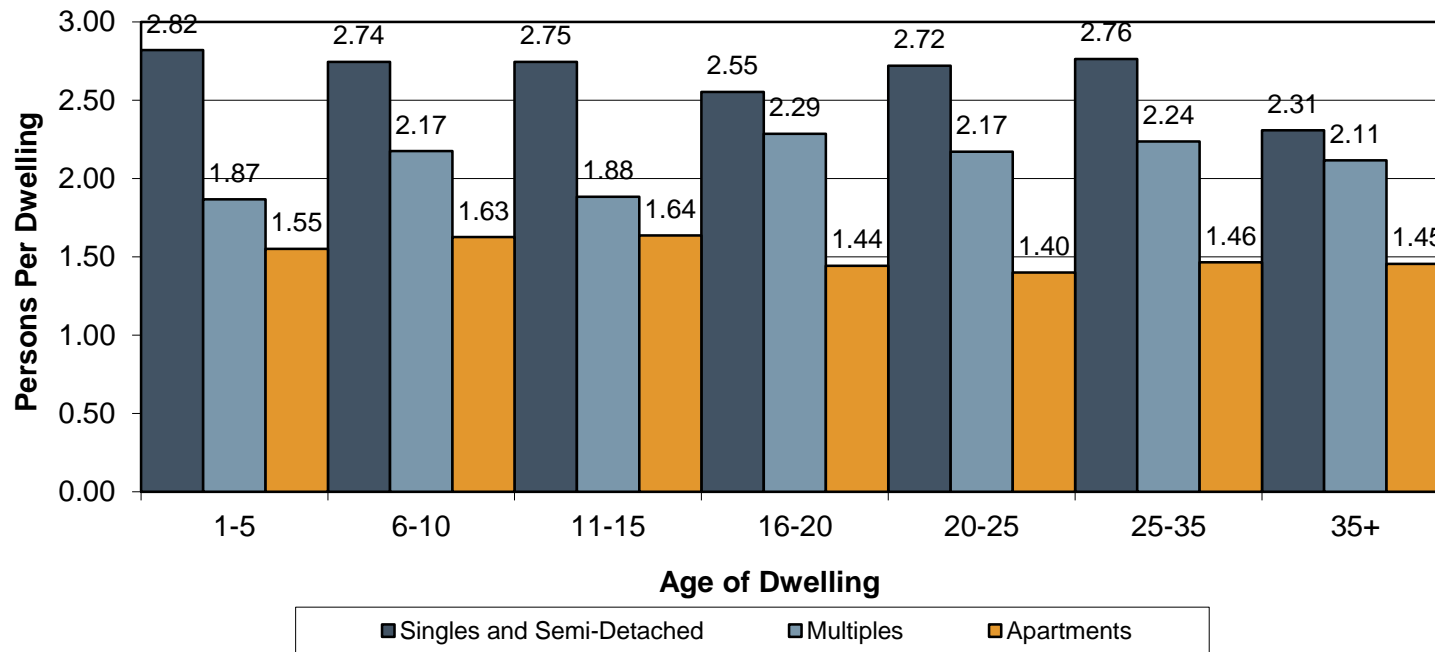
² PPU has been forecasted based on 2001 to 2016 historical trends.

Note: Does not include Statistics Canada data classified as 'Other'

P.P.U. Not calculated for samples less than or equal to 50 dwelling units, and does not include institutional population.



**Schedule 9
City of Sarnia
Persons Per Unit By Structural Type and Age of Dwelling
(2016 Census)**



Multiple P.P.U.s are based on Lambton County.



**Schedule 10a
City of Sarnia
Employment Forecast, 2019 to 2031**

Period	Population	Activity Rate							Employment									Employment Total (Excluding Work at Home)
		Primary	Work at Home	Industrial	Commercial/ Population Related	Institutional	Total	N.F.P.O.W. ¹	Total Including NFPOW	Primary	Work at Home	Industrial	Commercial/ Population Related	Institutional	Total	N.F.P.O.W. ¹	Total Employment (Including N.F.P.O.W.)	
Mid 2006	71,419	0.006	0.018	0.128	0.203	0.099	0.454	0.041	0.496	415	1,260	9,175	14,525	7,075	32,450	2,950	35,400	31,190
Mid 2011	72,366	0.006	0.018	0.106	0.176	0.105	0.411	0.048	0.459	445	1,290	7,655	12,770	7,595	29,755	3,460	33,215	28,465
Mid 2016	71,594	0.007	0.019	0.096	0.175	0.108	0.406	0.043	0.448	500	1,355	6,895	12,535	7,765	29,050	3,055	32,105	27,695
Early 2019	71,387	0.007	0.019	0.098	0.177	0.109	0.411	0.043	0.454	535	1,372	7,021	12,631	7,782	29,341	3,060	32,401	27,969
Early 2029	72,121	0.007	0.020	0.101	0.178	0.109	0.415	0.043	0.458	535	1,441	7,278	12,844	7,844	29,942	3,102	33,044	28,501
Mid 2031	72,300	0.007	0.020	0.101	0.178	0.109	0.416	0.043	0.459	535	1,455	7,321	12,875	7,863	30,049	3,114	33,163	28,594
Incremental Change																		
Mid 2006 - Mid 2011	947	0.000	0.000	-0.023	-0.027	0.006	-0.043	0.007	-0.037	30	30	-1,520	-1,755	520	-2,695	510	-2,185	-2,725
Mid 2011 - Mid 2016	-772	0.0008	0.0011	-0.0095	-0.0014	0.0035	-0.0054	-0.0051	-0.0106	55	65	-760	-235	170	-705	-405	-1,110	-770
Mid 2016 - Early 2019	-207	0.0005	0.0003	0.0020	0.0019	0.0006	0.0053	0.0002	0.0055	35	17	126	96	17	291	5	296	274
Early 2019 - Early 2029	734	-0.0001	0.0007	0.0026	0.0011	-0.0003	0.0041	0.0001	0.0043	0	69	257	213	62	601	42	643	532
Early 2019 - Mid 2031	913	-0.0001	0.0009	0.0029	0.0011	-0.0003	0.0046	0.0002	0.0048	0	83	300	244	81	708	54	762	625
Annual Average																		
Mid 2006 - Mid 2011	189	0.00007	0.00004	-0.00454	-0.00538	0.00118	-0.00864	0.00130	-0.00734	6	6	-304	-351	104	-539	102	-437	-545
Mid 2011 - Mid 2016	-154	0.0002	0.0002	-0.0019	-0.0003	0.0007	-0.0011	-0.0010	-0.0021	11	13	-152	-47	34	-141	-81	-222	-154
Mid 2016 - Early 2019	-83	0.0002	0.0001	0.0008	0.0007	0.0002	0.0021	0.0001	0.0022	14	7	50	38	7	116	2	118	110
Early 2019 - Early 2029	73	-0.00001	0.00007	0.00026	0.00011	-0.00003	0.00041	0.00001	0.00043	0	7	26	21	6	60	4	64	53
Early 2019 - Mid 2031	73	-0.00001	0.00007	0.00023	0.00009	-0.00002	0.00037	0.00002	0.00038	0	7	24	20	6	57	4	61	50

Source: Watson & Associates Economists Ltd., 2019.

¹ Statistics Canada defines no fixed place of work (N.F.P.O.W.) employees as "persons who do not go from home to the same work place location at the beginning of each shift". Such persons include building and landscape contractors, travelling salespersons, independent truck drivers, etc.



**Schedule 10b
City of Sarnia
Employment & Gross Floor Area (G.F.A) Forecast, 2019 to 2031**

Period	Population	Employment					Gross Floor Area in Square Feet (Estimated) ¹			
		Primary	Industrial	Commercial/ Population Related	Institutional	Total	Industrial	Commercial/ Population Related	Institutional	Total
Mid 2006	71,419	415	9,175	14,525	7,075	31,190				
Mid 2011	72,366	445	7,655	12,770	7,595	28,465				
Mid 2016	71,594	500	6,895	12,535	7,765	27,695				
Early 2019	71,387	535	7,021	12,631	7,782	27,969				
Early 2029	72,121	535	7,278	12,844	7,844	28,501				
Mid 2031	72,300	535	7,321	12,875	7,863	28,594				
Incremental Change										
Mid 2006 - Mid 2011	947	30	-1,520	-1,755	520	-2,725				
Mid 2011 - Mid 2016	-772	55	-760	-235	170	-770				
Mid 2016 - Early 2019	-207	35	126	96	17	274	138,600	43,200	11,900	193,700
Early 2019 - Early 2029	734	0	257	213	62	532	282,700	95,800	43,400	421,900
Early 2019 - Mid 2031	913	0	300	244	81	625	330,000	109,800	56,700	496,500
Annual Average										
Mid 2006 - Mid 2011	189	6	-304	-351	104	-545				
Mid 2011 - Mid 2016	-154	11	-152	-47	34	-154				
Mid 2016 - Early 2019	-83	14	50	38	7	110	55,440	17,280	4,760	77,480
Early 2019 - Early 2029	73	0	26	21	6	53	28,270	9,580	4,340	42,190
Early 2019 - Mid 2031	73	0	24	20	6	50	26,400	8,784	4,536	39,720

Source: Watson & Associates Economists Ltd., 2019.

¹ Statistics Canada defines no fixed place of work (N.F.P.O.W.) employees as "persons who do not go from home to the same work place location at the beginning of each shift". Such persons include building and landscape contractors, travelling salespersons, independent truck drivers, etc.

² Square Foot Per Employee Assumptions

Industrial	1,100
Commercial/ Population Related	450
Institutional	700

* Reflects Early 2019 to Mid 2031 forecast period

Note: Numbers may not add to totals due to rounding.



Schedule 10c
Estimate of the Anticipated Amount, Type and Location of
Non-Residential Development for Which Development Charges Can Be Imposed

Development Location	Timing	Industrial G.F.A. S.F. ¹	Commercial G.F.A. S.F. ¹	Institutional G.F.A. S.F. ¹	Total Non-Residential G.F.A. S.F.	Employment Increase ²
Bright's Grove	2019 - 2029	-	-	-	-	-
	2019 - 2031	-	-	-	-	-
Development Area 1	2019 - 2029	-	13,100	-	13,100	29
	2019 - 2031	-	14,900	-	14,900	33
Development Area 2	2019 - 2029	23,100	4,500	21,700	49,300	62
	2019 - 2031	26,400	5,000	28,700	60,100	76
Urban Area	2019 - 2029	203,100	68,700	21,700	293,500	368
	2019 - 2031	237,600	79,000	28,000	344,600	432
Suburban Area	2019 - 2029	-	-	-	-	-
	2019 - 2031	-	-	-	-	-
Total Urban Serviced Area ³	2019 - 2029	226,200	86,300	43,400	355,900	459
	2019 - 2031	264,000	98,900	56,700	419,600	541
Rural	2019 - 2029	56,500	9,600	-	66,100	73
	2019 - 2031	66,000	11,000	-	77,000	84
City of Sarnia	2019 - 2029	282,700	95,800	43,400	421,900	532
	2019 - 2031	330,000	109,800	56,700	496,500	625

Source: Watson & Associates Economists Ltd., 2019.

¹ Employment Increase does not include No Fixed Place of Work.

² Square feet per employee assumptions:

Industrial	1,100
Commercial	450
Institutional	700

³ Total Urban Area is defined as Bright's Grove, Development Area 1, Development Area 2 and Urban Area.

* Reflects Early 2019 to Mid 2031 forecast period

Note: Numbers may not add to totals due to rounding.



**Schedule 11
City of Sarnia
Non-Residential Construction Value
Years 2007 to 2016
(000's 2018 \$)**

YEAR	Industrial				Commercial				Institutional				Total			
	New	Improve	Additions	Total	New	Improve	Additions	Total	New	Improve	Additions	Total	New	Improve	Additions	Total
2007	1,055	3,594	931	5,580	7,872	9,149	3,704	20,725	22,965	3,327	8,452	34,743	31,891	16,070	13,087	61,048
2008	2,380	3,317	1,094	6,792	28,107	9,754	871	38,732	1,544	1,772	5,381	8,696	32,031	14,843	7,346	54,220
2009	10,408	0	1,130	11,538	6,586	9,380	509	16,474	25,656	4,086	1,243	30,985	42,650	13,466	2,882	58,997
2010	6,144	117	1,859	8,119	8,483	9,464	6,531	24,478	786	7,420	3,173	11,380	15,413	17,002	11,563	43,977
2012	1,021	2,037	563	3,620	7,054	10,539	3,698	21,291	172	1,597	8,678	10,447	8,246	14,173	12,939	35,358
2013	7,813	783	0	8,596	4,387	6,223	1,447	12,056	552	1,337	15,852	17,741	12,752	8,342	17,298	38,393
2014	11,058	1,863	0	12,921	2,992	6,314	2,296	11,602	733	2,358	2,680	5,771	14,782	10,535	4,976	30,293
2015	11,824	364	1,462	13,650	484	6,559	0	7,043	21	3,014	1,001	4,036	12,330	9,936	2,463	24,729
2016	943	660	1,123	2,725	4,644	4,294	2,235	11,173	1,505	2,242	0	3,746	7,092	7,196	3,358	17,645
Subtotal	55,817	12,773	10,664	79,255	86,938	80,260	22,753	189,951	55,020	28,299	55,707	139,027	197,775	121,332	89,125	408,232
Percent of Total	70%	16%	13%	100%	46%	42%	12%	100%	40%	20%	40%	100%	48%	30%	22%	100%
Average	5,582	1,419	1,333	7,925	8,694	8,026	2,528	18,995	5,502	2,830	6,190	13,903	19,778	12,133	8,912	40,823
2007 - 2011 Period Total				37,742				126,786				97,286				261,814
2007 - 2011 Average				7,548				25,357				19,457				52,363
% Breakdown				14.4%				48.4%				37.2%				100.0%
2012 - 2016 Period Total				41,513				63,165				41,741				146,418
2012 - 2016 Average				8,303				12,633				8,348				29,284
% Breakdown				28.4%				43.1%				28.5%				100.0%
2007 - 2016 Period Total				79,255				189,951				139,027				408,232
2007 - 2016 Average				7,925				18,995				13,903				40,823
% Breakdown				19.4%				46.5%				34.1%				100.0%

Source: Statistics Canada Publication, 64-001-XIB

Note: Inflated to year-end 2017 (January, 2018) dollars using Reed Construction Cost Index



**Schedule 12
City of Sarnia**

Employment to Population Ratio by Major Employment Sector, 2006 to 2016

NAICS	Employment & Gross Floor Area (G.F.A) Forecast, 2016 To Buildout	Year			Change			Comments
		2006	2011	2016	96-01	06-11	11-16	
Employment by industry								
	Primary Industry Employment							Categories which relate to local land-based resources
11	<i>Agriculture, forestry, fishing and hunting</i>	200	305	175		105	-130	
21	<i>Mining and oil and gas extraction</i>	275	230	355		-45	125	
	Sub-total	475	535	530	0	60	-5	
	Industrial and Other Employment							Categories which relate primarily to industrial land supply and demand
22	<i>Utilities</i>	265	225	245		-40	20	
23	<i>Construction</i>	1,790	1,700	1,765		-90	65	
31-33	<i>Manufacturing</i>	4,085	3,240	2,245		-845	-995	
41	<i>Wholesale trade</i>	895	1,215	1,285		320	70	
48-49	<i>Transportation and warehousing</i>	1,360	915	915		-445	0	
56	<i>Administrative and support</i>	1,030	745	703		-285	-43	
	Sub-total	9,425	8,040	7,158	-1,030	-1,385	-883	
	Population Related Employment							Categories which relate primarily to population growth within the municipality
44-45	<i>Retail trade</i>	4,560	4,315	4,575		-245	260	
51	<i>Information and cultural industries</i>	510	310	305		-200	-5	
52	<i>Finance and insurance</i>	970	940	775		-30	-165	
53	<i>Real estate and rental and leasing</i>	690	655	430		-35	-225	
54	<i>Professional, scientific and technical services</i>	1,780	1,710	1,850		-70	140	
55	<i>Management of companies and enterprises</i>	55	0	35		-55	35	
56	<i>Administrative and support</i>	1,030	745	703		-285	-43	
71	<i>Arts, entertainment and recreation</i>	620	730	475		110	-255	
72	<i>Accommodation and food services</i>	3,045	2,500	2,625		-545	125	
81	<i>Other services (except public administration)</i>	1,995	1,500	1,625		-495	125	
	Sub-total	15,255	13,405	13,398	-1,030	-1,850	-8	
	Institutional							
61	<i>Educational services</i>	2,315	2,115	2,175		-200	60	
62	<i>Health care and social assistance</i>	3,900	4,410	4,625		510	215	
91	<i>Public administration</i>	1,080	1,250	1,165		170	-85	
	Sub-total	7,295	7,775	7,965	0	480	190	
	Total Employment	32,450	29,755	29,050	-2,060	-2,695	-705	
	Population	71,419	72,366	71,594	543	947	-772	
	Employment to Population Ratio							
	Industrial and Other Employment	0.13	0.11	0.10	-0.02	-0.02	-0.01	
	Population Related Employment	0.21	0.19	0.19	-0.02	-0.03	0.00	
	Institutional Employment	0.10	0.11	0.11	0.00	0.01	0.00	
	Primary Industry Employment	0.01	0.01	0.01	0.00	0.00	0.00	
	Total	0.45	0.41	0.41	-0.03	-0.04	-0.01	

Source: Statistics Canada Employment by Place of Work

Note: 2006 to 2016 employment figures are classified by North American Industry Classification System (NAICS) Code



Appendix B

Level of Service



Appendix B: Level of Service

SUMMARY OF SERVICE STANDARDS AS PER DEVELOPMENT CHARGES ACT, 1997, AS AMENDED							
Service Category	Sub-Component	10 Year Average Service Standard					Maximum Ceiling LOS
		Cost (per SDE)		Quantity (per SDE)	Quality (per SDE)		
Services Related to a Highway	Roads	\$9,276.48	0.0059	km of roadways	1,572,285	per lane km	16,020,481
	County Roads	\$3,719.12	0.0027	km of roadways	1,377,452	per lane km	6,422,920
	Sidewalks	\$1,720.26	0.0092	km of sidewalks	186,985	per km	2,970,889
	Traffic Signals & Streetlights	\$1,079.43	0.2478	No. of Traffic Signals	4,356	per signal	1,864,176
	Services Related to a Highway - Facilities	\$473.18	2.1566	sq.ft. of building area	219	per sq.ft.	817,182
	Services Related to a Highway - Vehicles	\$408.24	0.0030	No. of vehicles and equipment	136,080	per vehicle	705,030
Fire	Fire Facilities	\$399.17	1.3392	sq.ft. of building area	298	per sq.ft.	689,367
	Fire Vehicles	\$310.65	0.0010	No. of vehicles	310,650	per vehicle	536,493
	Fire Small Equipment and Gear	\$75.06	0.0326	No. of equipment and gear	2,302	per Firefighter	129,629
Police	Police Facilities	\$520.22	1.5997	sq.ft. of building area	325	per sq.ft.	898,420
	Police Vehicles	\$56.15	0.0015	No. of vehicles and equipment	37,433	per vehicle	96,971
	Police Small Equipment and Gear	\$74.64	0.0282	No. of equipment and gear	2,647	per officer	128,903
Parking	Parking Spaces	\$97.93	0.0268	No. of spaces	3,654	per space	140,138
Parks	Parkland Development	\$1,886.93	0.0326	Acres of Parkland	57,881	per acre	2,700,197
	Parkland Amenities	\$1,157.11	0.0969	No. of parkland amenities	11,941	per amenity	1,655,824
	Parkland Trails	\$191.95	1.4920	Linear Metres of Paths and Trails	129	per lin m.	274,680
	Parks Vehicles and Equipment	\$201.35	0.0039	No. of vehicles and equipment	51,628	per vehicle	288,132
Recreation	Indoor Recreation Facilities	\$3,522.05	14.0045	sq.ft. of building area	251	per sq.ft.	5,040,054
Library	Library Facilities	\$579.05	1.5461	sq.ft. of building area	375	per sq.ft.	828,621



**City of Sarnia
Service Standard Calculation Sheet**

Service: Roads
Unit Measure: km of roadways

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/km)
City Roads Urban											
1 Lane	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	\$1,513,000
2 Lanes	84.82	88.77	89.87	92.28	92.99	94.77	95.16	95.16	95.16	95.16	\$1,689,000
3 Lanes	3.93	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	\$2,019,000
4 Lanes	8.52	10.19	10.19	10.19	10.19	10.80	10.80	10.80	10.80	10.80	\$2,213,000
5 Lanes	1.19	1.19	1.19	1.19	1.19	1.35	1.35	1.35	1.35	1.35	\$2,622,000
7 Lanes	1.41	1.41	1.41	1.41	2.55	2.55	2.55	2.55	2.55	2.55	\$3,707,000
City Roads Rural											
2 Lanes	57.20	57.22	57.22	57.22	58.85	59.68	61.52	61.52	61.52	61.52	\$1,124,000
Total	158.42	164.12	165.22	167.63	171.11	174.49	176.72	176.72	176.72	176.72	

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006

10 Year Average	2009-2018
Quantity Standard	0.0059
Quality Standard	\$1,572,285
Service Standard	\$9,276

D.C. Amount (before deductions)	13 Year
Forecast Population	1,727
\$ per SDE	\$9,276
Eligible Amount	\$16,020,481



**City of Sarnia
Service Standard Calculation Sheet**

Service: County Roads
Unit Measure: km of roadways

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/km)
County Roads Urban											
2 Lanes	19.43	19.43	19.43	19.43	19.43	19.43	19.43	19.43	19.43	19.43	\$1,630,661
3 Lanes	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	\$2,165,548
4 Lanes	21.53	21.53	21.53	21.53	21.53	21.53	21.53	21.53	21.53	21.53	\$2,681,308
5 Lanes	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	\$3,159,245
County Roads Rural											
2 Lanes	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50	31.50	\$1,123,700
Total	77.90	77.90	77.90	77.90	77.90	77.90	77.90	77.90	77.90	77.90	

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003

10 Year Average	2009-2018
Quantity Standard	0.0027
Quality Standard	\$1,377,452
Service Standard	\$3,719

D.C. Amount (before deductions)	13 Year
Forecast Net SDE Growth	1,727
\$ per SDE	\$3,719
Eligible Amount	\$6,422,920



**City of Sarnia
Service Standard Calculation Sheet**

Service: Services Related to a Highway - Facilities
Unit Measure: sq.ft. of building area

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Bld'g Value (\$/sq.ft.)	Value/ft ² with land, site works, etc.	Value/ft ² with land, site works, etc. Provided by Staff
Storage Building (Telfer & Confederation) - 2000 Confederation Line	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	\$160	\$180	\$180
Public Works Building (Telfer & Confederation)	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	\$245	\$274	\$274
Pump Station Maintenance Building (Telfer & Confederation)	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	\$165	\$186	\$186
Former Day Break Restaurant	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	\$213	\$238	\$238
Six Bay Public Works Garage	11,200	11,200	11,200	11,200	11,200	11,200	11,200	11,200	11,200	11,200	\$150	\$169	\$169
Public Works Salt/Sand Dome	7,900	7,900	7,900	7,900	7,900	7,900	7,900	7,900	7,900	7,900	\$165	\$186	\$186
Public Works Building	23,400	23,400	23,400	23,400	23,400	23,400	23,400	23,400	23,400	23,400	\$213	\$238	\$238
Public Works Storage Building - Old Autobody Shop	6,100	6,100	6,100	6,100	6,100	6,100	6,100	6,100	6,100	6,100	\$232	\$259	\$259
Total	62,000	62,000	62,000	62,000	62,000	62,000	62,000	62,000	62,000	62,000			

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	2.2084	2.1905	2.1729	2.1658	2.1595	2.1529	2.1438	2.1354	2.1225	2.1139

10 Year Average	2009-2018
Quantity Standard	2.1566
Quality Standard	\$219
Service Standard	\$473

D.C. Amount (before deductions)	13 Year
Forecast Net SDE Growth	1,727
\$ per SDE	\$473
Eligible Amount	\$817,182



**City of Sarnia
Service Standard Calculation Sheet**

Service: Services Related to a Highway - Vehicles and Equipment
Unit Measure: No. of vehicles and equipment

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/Vehicle)
Cars	10	10	10	10	10	10	10	4	4	4	\$35,000
Pickup/Vans 1/2 Ton	27	27	27	27	27	27	27	27	27	27	\$40,000
Pickup/Vans 3/4 Ton	14	14	14	14	14	14	14	14	14	14	\$45,000
1 Ton Vans	1	1	1	1	1	1	1	1	1	1	\$75,000
Truck 3 Ton	4	4	4	4	4	4	4	4	4	4	\$150,000
Truck 5 ton	9	9	9	9	9	10	10	10	10	10	\$300,000
Truck Tandem	3	3	3	3	3	3	3	3	3	3	\$450,000
Street Sweeper	3	2	2	2	2	2	2	2	2	2	\$350,000
Sewer Flushers	2	2	2	2	2	2	2	2	2	2	\$650,000
Payloaders	3	3	3	3	2	2	2	2	2	2	\$320,000
Backhoes	4	4	4	4	4	4	4	4	4	4	\$180,000
Paint Truck	1	1	1	1	1	1	1	1	1	1	\$350,000
Sign Truck	1	1	1	1	1	1	1	1	1	1	\$125,000
Sidewalk Plows	2	2	2	2	2	2	3	3	4	4	\$150,000
Grader 14 Ft.	1		-	-	-	-	-	-	-	-	\$531,500
Farm Tractors/Mowers	2	1	1	1	1	1	1	1	1	1	\$140,000
Fork Lift	1	1	1	1	1	1	1	1	1	1	\$75,000
Safety Trailer		-	-	-	-	-	-	-	-	-	\$99,700
Valve Turner	1	1	1	1	1	1	1	1	1	1	\$125,000
Skid Steer	1	1	1	1	1	2	2	2	2	2	\$45,000
Total	90	87	87	87	86	88	89	83	84	84	

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	0.0032	0.0031	0.0030	0.0030	0.0030	0.0031	0.0031	0.0029	0.0029	0.0029

10 Year Average	2009-2018
Quantity Standard	0.0030
Quality Standard	\$136,080
Service Standard	\$408

D.C. Amount (before deductions)	13 Year
Forecast Population	1,727
\$ per Capita	\$408
Eligible Amount	\$705,030



**City of Sarnia
Service Standard Calculation Sheet**

Service: Fire Vehicles
Unit Measure: No. of vehicles

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/Vehicle)
Engine 1 - 1998 Superior E-ONE Rescue/Pumper	1	1	1	1	1	1	1	1	1	-	\$797,700
Engine 4 - 1989 Amertek	1	1	1	-	-	-	-	-	-	-	\$797,700
Rescue 1 - 2003 Hackley Medium Duty Pumper/Rescue	1	1	1	1	1	1	1	1	1	-	\$566,200
Engine 2 - 1991 Superior Telesquirt	1	1	1	-	-	-	-	-	-	-	\$797,700
Engine 5 - 1998 Superior E-ONE Rescue/Pumper	1	1	1	1	1	-	-	-	-	-	\$797,700
Tower 4 - 1999 Pierce Dash Aerial Platform	1	1	1	1	1	1	1	1	1	1	\$1,700,000
Tanker 4 - 2003 S & S Tanker	1	1	1	1	1	1	1	1	1	1	\$400,000
Engine 5 - 1989 Superior Telesquirt	1	1	-	-	-	-	-	-	-	-	\$797,700
Ladder 2 - 2008 Smeal	1	1	1	1	1	1	1	1	1	1	\$1,175,000
Ladder 4 - 2008 Smeal	1	1	1	1	1	1	1	1	1	1	\$1,175,000
Chief 1 - 2008 Ford F150	1	1	1	1	1	-	-	-	-	-	\$44,000
Chief 2 - 2007 Dodge Ram 1500	1	1	1	1	-	-	-	-	-	-	\$40,200
Chief 3 - 2007 Ford F250	1	1	1	1	1	1	1	-	-	-	\$47,900
Chief 4 - Chevy Silverado 1500	1	1	1	1	1	1	1	1	1	1	\$44,000
Pub Ed - 2005 Dodge Ram 1500	1	1	1	1	1	1	1	1	1	-	\$40,200
TSO 1 - 2006 Chevy Uplander Van	1	1	1	1	-	-	-	-	-	-	\$22,800
TSO 2 - 2005 Chevy Uplander Van	1	1	1	1	1	1	1	1	1	1	\$22,800
FPO 3 - 2000 Cavalier	1	1	1	-	-	-	-	-	-	-	\$22,700
FPO 4 - 2000 Cavalier	1	1	1	-	-	-	-	-	-	-	\$22,700
FPO 5 - 2006 Crown Victoria	1	1	1	1	-	-	-	-	-	-	\$34,200
Pub Ed Trailer	1	-	-	-	-	-	-	-	-	-	\$22,700
Service Unit Truck #9 - 1995 Ford F150	1	1	1	1	1	1	1	1	1	1	\$44,000
Mechanics Van - 2006 Ford Service Van	1	1	1	1	1	1	1	1	1	1	\$28,500
Engine 1 - 2017 Typhoon Engine/Pumper	-	-	-	-	-	-	-	-	1	1	\$950,000
Engine 3 - 2015 Typhoon Engine/Pumper	-	-	-	-	-	-	1	1	1	1	\$950,000
Engine 5 - 2013 Typhoon Engine/Pumper	-	-	-	-	1	1	1	1	1	1	\$950,000
Rescue 1 - 2018 Spartan Heavy Rescue	-	-	-	-	-	-	-	-	-	1	\$650,000



**City of Sarnia
Service Standard Calculation Sheet**

Service: Fire Vehicles
Unit Measure: No. of vehicles

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/Vehicle)
Chief 1 - 2013 Chevrolet Equinox	-	-	-	-	1	1	1	1	1	1	\$40,000
Chief 2 - 2012 Chevrolet Tahoe	-	-	-	1	1	1	1	1	1	1	\$70,000
Chief 3 - 2015 Chevrolet 2500 HD	-	-	-	-	-	-	1	1	1	1	\$80,000
FS1 - 2007 Dodge Ram 1500	1	1	1	1	1	1	1	1	1	1	\$60,000
FS2 - 2007 Ford F-150	1	1	1	1	1	1	1	1	1	1	\$60,000
Pub Ed - 2017 Chevrolet Equinox Light SUV	-	-	-	-	-	-	-	-	1	1	\$45,000
TSO 1 - 2012 Chevrolet 2500	-	-	-	1	1	1	1	1	1	1	\$80,000
FPO 1 - 2006 Chevy Uplander Van	1	1	1	1	1	1	1	1	1	1	\$40,000
FPO 2 - 2009 Ford Escape	1	1	1	1	1	1	1	1	1	1	\$40,000
FPO 3 - 2013 Ford Escape	-	-	-	-	1	1	1	1	1	1	\$40,000
SO2 - 2016 Ford Transit Cargo Van	-	-	-	-	-	-	-	1	1	1	\$55,000
Haz-1 (2004 Hazmat Remediation Trailer)	1	1	1	1	1	1	1	1	1	1	\$25,000
Haz-2 (2013 Hazmat Response Trailer)	-	-	-	-	1	1	1	1	1	1	\$25,000
Pub Ed PE-T1 (2010 US Cargo Trailer)		1	1	1	1	1	1	1	1	1	\$3,000
Pub Ed PE-T2 (2017 NEO Enclosed Cargo Trailer)								-	1	1	\$3,800
S-9 - 2018 Truck	-	-	-	-	-	-	-	-	-	1	\$45,000
SUI - 2007 Ford SRW Pickup Truck	1	1	1	1	1	1	1	1	1	1	\$80,000
Mechanics Van - 2018 Service Van								-	-	1	\$50,000
Marine 1 - 1980 Rescue Boat	1	1	1	1	1	1	1	1	1	1	\$175,000
Marine 1 Trailer - 2005	1	1	1	1	1	1	1	1	1	1	\$5,000
Total	31	31	30	28	29	27	29	29	32	32	

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	0.0011	0.0011	0.0011	0.0010	0.0010	0.0009	0.0010	0.0010	0.0011	0.0011

10 Year Average	2009-2018
Quantity Standard	0.0010
Quality Standard	\$310,650
Service Standard	\$311

D.C. Amount (before deductions)	13 Year
Forecast Net SDE Growth	1,727
\$ per SDE	\$311
Eligible Amount	\$536,493



**City of Sarnia
Service Standard Calculation Sheet**

Service: Fire Small Equipment and Gear
Unit Measure: No. of equipment and gear

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/item)
# of Equipped Firefighters	128	128	129	129	130	130	130	129	128	127	\$3,800
Portable Radios	25	28	30	33	35	35	35	36	37	38	\$1,550
Batteries	-	-	-	-	-	100	100	100	100	100	\$268
Battery Bank	-	-	-	-	-	6	6	6	6	6	\$744
Mobile Radios	19	21	24	26	29	29	27	25	23	21	\$1,329
Base Stations	-	-	-	-	4	4	4	4	5	6	\$1,700
Repeaters	-	-	-	-	-	9	9	9	9	9	\$3,500
Headsets (set of 4)	-	-	-	-	9	9	9	9	9	9	\$7,500
Defibrillators	7	7	8	8	8	8	8	8	8	8	\$2,800
Auto-Extrication Equipment	3	4	4	5	5	5	8	10	12	14	\$13,395
Self Contained Breathing Apparatus SCBA	47	44	41	38	35	35	36	37	38	39	\$10,000
Self Contained Breathing Apparatus SCBA c/w Extendaire	-	-	-	-	7	7	7	7	8	9	\$10,000
Rescue Aire RIT Kits	-	-	-	-	2	2	2	2	2	3	\$6,225
Premaire Cadet Escape Packs	-	-	-	-	2	2	2	2	3	4	\$2,000
Spare Air Cylinders - 45 Minute	16	16	16	16	16	16	16	16	16	16	\$1,550
Spare Air Cylinders - 60 Minute	-	-	-	-	14	14	14	14	14	15	\$1,800
SCBA Masks, iHUD and Monitoring Tags	-	-	-	-	130	130	130	130	130	130	\$2,348
RIT Kits	-	-	-	-	2	2	2	2	2	2	\$5,700
SCBA Accessories	-	-	-	-	1	1	1	1	1	1	\$11,000
Posi Chek - SCBA Function Test Machine	-	-	-	-	-	1	1	1	1	1	\$19,500
Breathing Air Compressor - BAC & Fill Station	-	-	-	-	1	1	1	1	1	1	\$85,000
Breathing Air Compressor - BAC & Fill Station	-	-	-	-	-	-	-	-	1	1	\$85,000
Breathing Air Cart	-	-	-	-	-	1	1	1	1	1	\$4,000
Portacount 8038+ (Fit Test Machine)	-	-	-	-	-	-	-	1	1	1	\$18,000
Fire Hose 125 mm Supply (LDH)	-	-	-	-	192	192	192	192	192	142	\$649
Fire Hose 65 mm Hand-line	-	-	-	-	48	60	80	90	102	114	\$339



**City of Sarnia
Service Standard Calculation Sheet**

Service: Fire Small Equipment and Gear
Unit Measure: No. of equipment and gear

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/item)
Fire Hose 45 mm Hand-line	286	273	259	246	232	232	233	235	237	239	\$433
Fire Hose 100 mm Hand-line						66	66	66	66	66	\$575
Hose Repair Machine						1	1	1	1	1	\$14,000
Thermal Imaging Cameras	4	5	5	6	6	6	6	6	6	7	\$8,000
Nozzles, Appliances	35	35	35	36	36	36	42	48	52	56	\$1,000
Ground Monitors	-	-	-	-	9	9	9	9	9	9	\$8,000
Positive Pressure Blowers	-	-	-	-	6	6	6	6	6	6	\$3,400
Rice Pump						1	1	1	1	1	\$4,500
Firefighting Foam (Barrels 55 gallon)	3	3	4	4	4	4	4	3	2	1	\$4,100
Toxic Gas Monitors	5	5	6	6	7	7	7	7	7	6	\$4,200
Toxic Gas Monitor Docking Stations	-	-	-	-	-	5	5	5	5	5	\$3,800
Ice Rescue Equipment	3	3	2	2	1	1	1	1	1	1	\$27,400
High/Low Angle Equipment	2	2	2	2	2	2	2	2	2	2	\$9,700
Hazardous Materials Response Equipment	-	-	-	-	1	1	1	1	1	1	\$227,900
Portable Generators	-	-	-	-	10	10	10	10	10	10	\$2,300
Training Equipment	-	-	-	-	-	-	1	2	3	4	\$3,125
Total	583	574	565	557	984	1,186	1,216	1,236	1,259	1,233	

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	0.02	0.02	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.04

10 Year Average	2009-2018
Quantity Standard	0.0326
Quality Standard	\$2,302
Service Standard	\$75

D.C. Amount (before deductions)	13 Year
Forecast Net SDE Growth	1,727
\$ per SDE	\$75
Eligible Amount	\$129,629



**City of Sarnia
Service Standard Calculation Sheet**

Service: Police Facilities
Unit Measure: sq.ft. of building area

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Bld'g Value (\$/sq.ft.)	Value/ft ² with land, site works, etc.
Headquarters	45,088	45,088	45,088	45,088	45,088	45,088	45,088	45,088	45,088	45,088	\$280	\$327
Training Facility (Leased)	-	-	-	-	-	-	-	-	4,600	4,600	\$200	\$235
Total	45,088	45,088	45,088	45,088	45,088	45,088	45,088	45,088	49,688	49,688		

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	1.6060	1.5930	1.5802	1.5750	1.5705	1.5656	1.5590	1.5529	1.7010	1.6942

10 Year Average	2009-2018
Quantity Standard	1.5997
Quality Standard	325
Service Standard	\$520

D.C. Amount (before deductions)	13 Year
Forecast Net SDE Growth	1,727
\$ per SDE	\$520
Eligible Amount	\$898,420



**City of Sarnia
Service Standard Calculation Sheet**

Service: Police Vehicles
Unit Measure: No. of vehicles and equipment

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/Vehicle)
Containment Chev Tahoe 4x4	2	2	2	2	2	2	2	2	2	2	\$42,800
General Patrol Dodge Charger	10	10	10	10	10	10	10	10	10	10	\$35,000
COPPS Dodge Charger Stealth	2	2	2	2	2	2	2	2	2	2	\$35,000
Community Services Dodge Charger Stealth	1	1	1	1	1	1	1	1	1	1	\$33,600
Traffic Chev Tahoe 4x4	1	1	1	1	1	1	1	1	1	1	\$42,800
Traffic Dodge Charger	2	2	2	2	2	2	2	2	2	2	\$34,600
Court Security Ford Crown Victorial	1	1	1	1	1	1	1	1	1	1	\$25,000
Community Services Dodge Durango	1	1	1	1	1	1	1	1	1	1	\$35,500
Paddy Wagon Ford Econoline Van	1	1	1	1	1	1	1	1	1	1	\$32,000
NCO Chev Tahoe	1	1	1	1	1	1	1	1	1	1	\$42,687
Containment Dodge Promaster	1	1	1	1	1	1	1	1	1	1	\$40,000
Ident/Forensics Chev Tahoe	1	1	1	1	1	1	1	1	1	1	\$42,800
CID/Vice Unmarked Cars	10	10	10	10	10	10	10	10	10	10	\$30,000
Youth Bureau Unmarked Cars	2	2	2	2	2	2	2	2	2	2	\$26,000
Chev Impala	1	1	1	1	1	1	1	1	1	1	\$26,000
Training Branch Ford Crown Victoria	1	1	1	1	1	1	1	1	1	1	\$30,000
Stealth Titan Trailer	1	1	1	1	1	1	1	1	1	1	\$10,000
Polaris Ranger 800XP	1	1	1	1	1	1	1	1	1	1	\$15,000
Intelligence Dodge Ram 4x4	1	1	1	1	1	1	1	1	1	1	\$32,000
Parade Car Ford Crown Victorial	1	1	1	1	1	1	1	1	1	1	\$30,000
ITSA Command Bus	1	1	1	1	1	1	1	1	1	1	\$250,000
Total	43	43	43	43	43	43	43	43	43	43	

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002

10 Year Average	2009-2018
Quantity Standard	0.0015
Quality Standard	\$37,433
Service Standard	\$56

D.C. Amount (before deductions)	13 Year
Forecast Net SDE Growth	1,727
\$ per SDE	\$56
Eligible Amount	\$96,971



**City of Sarnia
Service Standard Calculation Sheet**

Service: Police Small Equipment and Gear
 Contact :
 Unit Measure: No. of equipment and gear

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/item)
Emerg Response Protective Armour	14	14	14	14	14	14	14	14	14	14	\$5,000
Standard Issue Body Armour	111	111	111	111	111	111	111	111	111	111	\$650
Handguns	121	121	121	121	121	121	121	121	121	121	\$800
Tasers	31	31	31	31	31	31	31	31	31	31	\$2,000
Pistols - Sim, Training, Operational	142	142	142	142	142	142	142	142	142	142	\$800
Rifles	24	24	24	24	24	24	24	24	24	24	\$3,000
Shotguns	7	7	7	7	7	7	7	7	7	7	\$1,200
Tablets	-	-	-	-	-	-	-	-	16	16	\$6,000
Portable Radios	65	65	65	65	65	65	65	65	65	65	\$5,000
Mobile Radios	42	42	42	42	42	42	42	42	42	42	\$10,000
911 Dispatch Radio Consoles	4	4	4	4	4	4	4	4	4	4	\$25,000
911 Dispatch Work Stations	4	4	4	4	4	4	4	4	4	4	\$25,000
Livescan Equipment	1	1	1	1	1	1	1	1	1	2	\$50,000
Desktop Computers	80	80	80	80	80	80	80	80	80	80	\$1,500
Laptops	25	25	25	25	25	25	25	25	25	25	\$2,000
Servers (IT)	10	10	10	10	10	10	10	10	10	10	\$15,000
Blade Server	1	1	1	1	1	1	1	1	1	2	\$70,000
3D Scanner										1	\$100,000
Telephone System	1	1	1	1	1	1	1	1	1	1	\$150,000
Cell Phones	111	111	111	111	111	111	111	111	111	111	\$500
Cameras	8	8	8	8	8	8	8	8	8	8	\$1,500
Bicycles	4	4	4	4	4	4	4	4	4	4	\$2,000
Total	806	806	806	806	806	806	806	806	822	825	

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

10 Year Average	2009-2018
Quantity Standard	0.0282
Quality Standard	\$2,647
Service Standard	\$75

D.C. Amount (before deductions)	13 Year
Forecast Net SDE Growth	1,727
\$ per SDE	\$75
Eligible Amount	\$128,903



**City of Sarnia
Service Standard Calculation Sheet**

Service: Parking Spaces
Unit Measure: No. of spaces

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/space)
Metered Parking Lots											
Charlotte	71	71	71	71	71	71	71	71	71	71	\$3,600
Julia	36	36	36	36	36	36	36	36	36	36	\$3,600
Lochiel	20	20	20	20	20	20	20	20	20	20	\$3,600
Pay and Display Parking Lots											
Parkway	41	41	41	41	41	41	41	41	41	41	\$3,600
Victoria	129	129	129	129	129	129	131	131	131	131	\$3,600
Vendome	70	70	70	70	70	70	70	70	70	70	\$3,600
Pay & Display Machines	6	6	6	6	6	6	6	6	6	6	\$10,000
Other Parking											
CNR	61	61	61	61	61	61	61	61	61	61	\$3,600
Bayshore	62	62	62	62	62	62	85	85	85	85	\$3,600
Mitton	35	35	35	35	35	35	49	49	49	49	\$3,600
George Street	100	100	100	100	100	100	100	100	100	100	\$3,600
Airport	125	125	125	125	125	125	125	125	125	125	\$3,600
Total	756	756	756	756	756	756	795	795	795	795	

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	0.0269	0.0267	0.0265	0.0264	0.0263	0.0263	0.0275	0.0274	0.0272	0.0271

10 Year Average	2009-2018
Quantity Standard	0.0268
Quality Standard	\$3,654
Service Standard	\$98

D.C. Amount (before deductions)	10 Year
Forecast Net SDE Growth	1,431
\$ per SDE	\$98
Eligible Amount	\$140,138



**City of Sarnia
Service Standard Calculation Sheet**

Service: Parkland Development
Unit Measure: Acres of Parkland

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/Acre)
Natural Open Space/ Regional Parks											
Parkland Owned by City	200	200	200	200	200	200	200	200	215	222	\$12,200
City-wide Parks											
Parkland Owned by City	173	173	173	173	173	173	173	173	173	173	\$152,000
Neighbourhood Parks											
Parkland Owned by City	65	66	66	66	66	67	67	67	67	67	\$15,000
Community Parks											
Parkland Owned by City	161	161	161	161	161	161	161	161	161	161	\$152,000
Regional Parks											
Parkland Owned by City	334	334	334	334	334	334	334	334	334	334	\$15,200
Total	933	934	934	934	934	935	935	935	950	957	

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	0.033	0.033	0.033	0.033	0.033	0.033	0.032	0.032	0.033	0.033

10 Year Average	2009-2018
Quantity Standard	0.0326
Quality Standard	\$57,881
Service Standard	\$1,887

D.C. Amount (before deductions)	10 Year
Forecast Net SDE Growth	1,431
\$ per SDE	\$1,887
Eligible Amount	\$2,700,197



**City of Sarnia
Service Standard Calculation Sheet**

Service: Parkland Amenities
Unit Measure: No. of parkland amenities

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/item)
Neighborhood/Community/City Wide Parks											
Softball Diamonds (includes Regional)	11	11	11	11	11	11	7	7	7	7	\$182,400
Softball Diamonds - Lit (includes Regional)	5	5	5	5	5	5	5	5	5	5	\$462,100
Baseball Diamonds - Lit (includes Regional)	2	2	2	2	2	2	2	2	2	2	\$486,500
Practice (scrub) Diamonds	2	2	2	2	2	2	2	2	2	2	\$60,800
Soccer Pitches	16	16	16	16	16	16	16	16	16	16	\$79,100
Soccer Pitches - Mini	4	4	4	4	4	4	4	4	4	4	\$30,400
Tennis Court Surfaces (located in 5 parks/2018)	22	22	22	22	22	22	22	17	17	15	\$25,000
Pickle Ball Only Courts	-	-	-	-	-	-	-	-	-	6	\$15,000
Basketball Pads	2	2	2	2	2	2	2	2	2	2	\$30,400
Play Equipment - Individual Pieces	165	165	165	165	165	165	165	160	161	163	\$10,000
Play Units/Structures	36	36	36	36	36	36	38	38	38	43	\$150,000
Gazebo/ Picnic Shelters	1	1	1	1	1	1	1	1	1	25	\$42,600
Washrooms & Other Bldgs (m2)	620	620	620	620	620	620	620	620	620	620	\$6,100
Splash Park	1	1	1	1	1	1	1	1	1	1	\$486,500
Skate Board Park	1	1	2	2	2	2	2	2	2	2	\$243,200
Regional Parks											
Washrooms & Other Bldgs (m2)	1,860	1,860	1,860	1,860	1,860	1,860	1,860	1,860	1,860	1,860	\$6,100
Gazebos/Picnic Shelter	9	9	9	9	9	9	10	10	11	12	\$42,600
Wedding Pavilion	1	1	1	1	1	1	1	1	1	1	\$500,000
Cricket Pitch & Fieldhouse	1	1	1	1	1	1	1	1	1	1	\$121,600
Play Equipment - Individual Pieces	7	7	7	7	7	7	7	7	7	7	\$10,000
Soccer Pitches - Lit & Irg.	1	1	4	4	4	4	4	4	4	4	\$304,000
Volleyball - Canatara Park	3	3	3	3	3	3	3	3	3	3	\$24,300
Tennis Court Surfaces (located in 2 parks 2018)	6	6	6	6	6	6	6	6	6	6	\$25,000
Sarnia Bay Marina Including Docks & Shoreline	1	1	1	1	1	1	1	1	1	1	\$3,748,000
Play Units/Structures	4	4	4	4	4	4	4	4	4	4	\$150,000
Centennial Park - Outdoor Stage and Gathering Centre	1	1	1	1	1	1	1	1	1		\$1,827,500
Total	2,782	2,782	2,786	2,786	2,786	2,786	2,785	2,775	2,777	2,812	

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	0.099	0.098	0.098	0.097	0.097	0.097	0.096	0.096	0.095	0.096

10 Year Average	2009-2018
Quantity Standard	0.0969
Quality Standard	\$11,941
Service Standard	\$1,157

D.C. Amount (before deductions)	10 Year
Forecast Net SDE Growth	1,431
\$ per SDE	\$1,157
Eligible Amount	\$1,655,824



**City of Sarnia
Service Standard Calculation Sheet**

Service: Parkland Trails
Unit Measure: Linear Metres of Paths and Trails

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2009 Value (\$/ Linear Metre)	2019 Value (\$/ Linear Metre)
Howard Watson Nature Trail	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	\$90	\$110
HWNT at Clearwater Arena	500	500	500	500	500	500	500	500	500	500	\$90	\$110
Suncor Nature Way	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	\$90	\$110
Rapid Parkway Trails	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	\$90	\$110
Vidal Street On-Road	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	\$160	\$190
Christina & Devine Street	500	500	500	500	500	500	500	500	500	500	\$160	\$190
Vidal Street (Suncor Development)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	\$160	\$190
Brights Grove Waterfront Trail	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	\$160	\$190
Wawanosh Wetlands Walking Trails	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	\$90	\$110
Blackwell/Modeland Trail	3,094	3,094	3,094	3,094	3,094	3,094	3,094	3,094	3,094	3,094		\$110
Total	42,894	42,894	42,894	42,894	42,894	42,894	42,894	42,894	42,894	42,894		

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	1.53	1.52	1.50	1.50	1.49	1.49	1.48	1.48	1.47	1.46

10 Year Average	2009-2018
Quantity Standard	1.4920
Quality Standard	\$129
Service Standard	\$192

D.C. Amount (before deductions)	10 Year
Forecast Net SDE Growth	1,431
\$ per SDE	\$192
Eligible Amount	\$274,680



**City of Sarnia
Service Standard Calculation Sheet**

Service: Parks Vehicles and Equipment
Unit Measure: No. of vehicles and equipment

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Value (\$/Vehicle)
Cars	1	1	1	1	1	1	1	1	1	1	\$35,000
Pickup	32	32	32	32	32	32	32	32	32	32	\$40,000
ATV	1	1	1	1	1	1	1	1	1	1	\$45,000
Van	5	5	5	5	5	5	5	5	5	5	\$150,000
Truck 3 Ton	1	1	1	1	1	1	1	1	1	1	\$150,000
Truck 5 ton	1	1	1	1	1	1	1	1	1	1	\$80,000
Tractor	7	7	7	7	7	7	7	7	7	7	\$200,000
Crane	1	1	1	1	1	1	1	1	1	1	\$140,000
Backhoes	1	1	1	1	1	1	1	1	1	1	\$100,000
Dump Truck	4	4	4	4	4	4	4	4	4	4	\$18,000
Bunker Machine	1	1	1	1	1	1	1	1	1	1	\$15,000
Grader 14 Ft.	1	1	1	1	1	1	1	1	1	1	\$28,000
5 to 6 Foot Riding Lawn Mower	23	23	23	23	23	23	23	23	23	23	\$40,000
10 Foot Riding Lawn Mower	3	3	3	3	3	3	3	3	3	3	\$125,000
16 Foot Riding Lawn Mower	4	4	4	4	4	4	4	4	4	4	\$75,000
Fork Lift	2	2	2	2	2	2	2	2	2	2	\$11,000
Safety Trailer	1	1	1	1	1	1	1	1	1	1	\$12,000
Utility Vehicle	14	14	14	14	14	14	14	14	14	14	\$60,000
Skid Steer	1	1	1	1	1	1	1	1	1	1	\$200,000
Bucket Truck	1	1	1	1	1	1	1	1	1	1	\$120,000
Ice Resurfacers	5	5	5	5	5	7	7	7	7	7	
Total	110	110	110	110	110	112	112	112	112	113	

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004

10 Year Average	2009-2018
Quantity Standard	0.0039
Quality Standard	\$51,628
Service Standard	\$201

D.C. Amount (before deductions)	10 Year
Forecast Net SDE Growth	1,431
\$ per SDE	\$201
Eligible Amount	\$288,132



**City of Sarnia
Service Standard Calculation Sheet**

Service: Indoor Recreation Facilities
Unit Measure: sq.ft. of building area

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Bld'g Value (\$/sq.ft.)	Value/ft ² with land, site works, etc.
Canatara Park Facilities	12,900	12,900	12,900	12,900	12,900	12,900	12,900	12,900	12,900	12,900	\$223	\$249
Centennial Park	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	\$190	\$213
Samia Arena	40,400	40,400	40,400	40,400	40,400	40,400	40,400	40,400	40,400	40,400	\$214	\$240
Clearwater Arena & Community Centre	71,600	71,600	71,600	71,600	71,600	71,600	71,600	71,600	71,600	71,600	\$219	\$245
Progressive Auto Sales Arena	144,200	144,200	144,200	144,200	144,200	144,200	144,200	144,200	144,200	144,200	\$211	\$236
Newton Community Centre	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	\$454	\$504
Samia Soccer/Gymnastic Centre	18,900	18,900	18,900	18,900	18,900	18,900	18,900	18,900	18,900	18,900	\$283	\$316
Germain Arena	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	\$222	\$248
Lochiel Kiwanis Community Centre	31,200	31,200	31,200	31,200	31,200	31,200	31,200	31,200	31,200	31,200	\$249	\$278
Germaine Park Facilities	22,300	22,300	22,300	22,300	22,300	22,300	22,300	22,300	22,300	22,300	\$243	\$272
Norm Pery Park Facilities	6,900	6,900	6,900	6,900	6,900	6,900	6,900	6,900	6,900	6,900	\$411	\$457
Cox Youth Centre	5,200	5,200	5,200	5,200	5,200	5,200	5,200	5,200	5,200	5,200	\$402	\$447
Samia Bay Marina - Jack Kennedy Centre	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	\$349	\$388
Germain Park - Jackson Pool	2,300	2,300	2,300	2,300	2,300	2,300	2,300	-	-	-	\$331	\$369
Strangway Community Centre	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	\$335	\$373
Total	403,300	403,300	403,300	403,300	403,300	403,300	403,300	403,300	401,000	401,000	401,000	

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	14.3656	14.2489	14.1345	14.0881	14.0474	14.0040	13.9449	13.8109	13.7277	13.6725

10 Year Average	
2009-2018	
Quantity Standard	14.0045
Quality Standard	\$251
Service Standard	\$3,522

D.C. Amount (before deductions)	
10 Year	
Forecast Net SDE Growth	1,431
\$ per SDE	\$3,522
Eligible Amount	\$5,040,054



**City of Sarnia
Service Standard Calculation Sheet**

Service: Library Facilities
Unit Measure: sq.ft. of building area

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 Bld'g Value (\$/sq. ft.)	Value/ft ² with land, site works, etc.
Main Branch	38,158	38,158	38,158	38,158	38,158	38,158	38,158	38,158	38,158	38,158	\$315	\$384
Bright's Grove Branch	3,766	3,766	3,766	3,766	3,766	3,766	3,766	3,766	3,766	3,766	\$336	\$409
Mall Road Branch (Leased)	2,525	2,525	2,525	2,525	2,525	2,525	2,525	2,525	2,525	2,525	\$146	\$180
Total	44,449	44,449	44,449	44,449	44,449	44,449	44,449	44,449	44,449	44,449		

SDEs	28,074	28,304	28,533	28,627	28,710	28,799	28,921	29,035	29,211	29,329
Per SDE Standard	1.5833	1.5704	1.5578	1.5527	1.5482	1.5434	1.5369	1.5309	1.5217	1.5155

10 Year Average	2009-2018
Quantity Standard	1.5461
Quality Standard	\$375
Service Standard	\$579

D.C. Amount (before deductions)	10 Year
Forecast Net SDE Growth	1,431
\$ per SDE	\$579
Eligible Amount	\$828,621



Appendix C

Long-Term Capital and Operating Cost Examination



Appendix C: Long-Term Capital and Operating Cost Examination

City of Sarnia Annual Capital and Operating Cost Impact

As a requirement of the D.C.A. under subsection 10(2)(c), an analysis must be undertaken to assess the long-term capital and operating cost impacts for the capital infrastructure projects identified within the D.C. As part of this analysis, it was deemed necessary to isolate the incremental operating expenditures directly associated with these capital projects, factor in cost saving attributable to economies of scale or cost sharing where applicable and prorate the cost on a per unit basis (i.e. sq.ft. of building space, per vehicle, etc.). This was undertaken through a review of the City's approved 2017 Financial Information Return (F.I.R.).

In addition to the operational impacts, over time the initial capital projects will require replacement. This replacement of capital is often referred to as life cycle cost. By definition, lifecycle costs are all the costs which are incurred during the life of a physical asset, from the time its acquisition is first considered, to the time it is taken out of service for disposal or redeployment. The method selected for life cycle costing is the sinking fund method which provides that money will be contributed annually and invested, so that those funds will grow over time to equal the amount required for future replacement. The following factors were utilized to calculate the annual replacement cost of the capital projects (annual contribution = factor X capital asset cost) and are based on an annual growth rate of 2% (net of inflation) over the average useful life of the asset:

Asset	Lifecycle Cost Factor	
	Average Useful Life	Factor
Fire Facilities	150	0.00108
Fire Vehicles	15	0.05783
Equipment	8	0.11651
Roads	40	0.01656
Sidewalks and Parking Spaces	50	0.01182
Traffic Signals & Streetlights	35	0.02000
Other Vehicles	10	0.09133
Parkland Development	40	0.01656
Water, Wastewater, and Stormwater	80	0.00516



Table C-1 depicts the annual operating impact resulting from the proposed gross capital projects at the time they are all in place. It is important to note that, while City program expenditures will increase with growth in population, the costs associated with the new infrastructure (i.e. facilities) would be delayed until the time these works are in place.



Table C-1
City of Sarnia
Operating and Capital Expenditure Impacts for Future Capital Expenditures

SERVICE	GROSS COST LESS BENEFIT TO EXISTING	ANNUAL LIFECYCLE EXPENDITURES	ANNUAL OPERATING EXPENDITURES	TOTAL ANNUAL EXPENDITURES
All Other Urban Areas Services				
1. Stormwater Drainage and Control Services				
1.1 Channels, drainage and ponds	1,165,586	84,564	4,204	88,768
2. Wastewater Services				
2.1 Treatment plants & Sewers	16,349,990	1,054,321	180,381	1,234,702
3. Water Services				
3.1 Treatment, storage and distribution systems	139,000	40,637	42,362	82,999
Area 2 Urban Services				
4. Stormwater Drainage and Control Services				
4.1 Channels, drainage and ponds	19,222,800	1,054,270	55,963	1,110,233
5. Wastewater Services				
5.1 Treatment plants & Sewers	26,062,900	1,431,237	232,087	1,663,324
6. Water Services				
6.1 Treatment, storage and distribution systems	1,175,419	84,075	289,138	373,213
City-wide Services				
7. Services Related to a Highway				
7.1 Roads	33,613,952	1,933,261	102,447	2,035,708
7.2 Traffic Signals and Streetlights	2,350,000	132,267	7,162	139,429
7.3 Sidewalks	3,745,000	194,111	11,414	205,525
7.4 Public Works	519,901	87,001	1,585	88,586
7.5 County Roads	4,839,380	308,816	14,749	323,565
8. Fire Protection Services				
8.1 Fire facilities	689,000	62,764	130,031	192,795
8.2 Fire vehicles	500,000	45,045	94,362	139,407
8.3 Small equipment and gear	129,600	19,123	24,459	43,582
9. Police Services				
9.1 Police facilities, vehicles and equipment	1,000,000	122,736	308,608	431,344
10. Parking Services				
10.1 Municipal parking spaces	140,000	7,256	132	7,388
11. Outdoor Recreation Services				
11.1 Parkland development, amenities & trails	3,451,058	287,296	56,800	344,096
11.2 Parks vehicles and equipment	288,000	42,510	4,740	47,250
12. Administration				
12.1 Studies	289,150	-	49,109	49,109
Total	115,670,736	6,991,290	1,609,732	8,601,022



Appendix D

D.C. Reserve Fund Policy



Appendix D: D.C. Reserve Fund Policy

D.1 Legislative Requirements

The Development Charges Act, 1997 (D.C.A.) requires development charge collections (and associated interest) to be placed in separate reserve funds. Sections 33 through 36 of the Act provide the following regarding reserve fund establishment and use:

- a municipality shall establish a reserve fund for each service to which the D.C. by-law relates; s.7(1), however, allows services to be grouped into categories of services for reserve fund (and credit) purposes, although only 100% eligible and 90% eligible services may be combined (minimum of two reserve funds);
- the municipality shall pay each development charge it collects into a reserve fund or funds to which the charge relates;
- the money in a reserve fund shall be spent only for the “capital costs” determined through the legislated calculation process (as per s.5(1) 2-8);
- money may be borrowed from the fund but must be paid back with interest (O.Reg. 82/98, s.11(1) defines this as Bank of Canada rate either on the day the by-law comes into force or, if specified in the by-law, the first business day of each quarter); and
- D.C. reserve funds may not be consolidated with other municipal reserve funds for investment purposes and may only be as an interim financing source for capital undertakings for which development charges may be spent (s.37).

Annually, the Treasurer of the municipality is required to provide Council with a financial statement related to the D.C. by-law(s) and reserve funds. This statement must be made available to the public and may be requested to be forwarded to the Minister of Municipal Affairs and Housing. The D.C.A. does not prescribe how the statement is to be made available to the public. We would recommend that a resolution of Council make the statement available on the municipality’s website or upon request.

Subsection 43(2) and O.Reg. 82/98 prescribes the information that must be included in the Treasurer’s statement, as follows:

- opening balance;
- closing balance;



- description of each service and/or service category for which the reserve fund was established (including a list of services within a service category);
- transactions for the year (e.g. collections, draws) including each assets capital costs to be funded from the D.C. reserve fund and the manner for funding the capital costs not funded under the D.C. by-law (i.e. non-D.C. recoverable cost share and post-period D.C. recoverable cost share);
- for projects financed by development charges, the amount spent on the project from the D.C. reserve fund and the amount and source of any other monies spent on the project.
- amounts borrowed, purpose of the borrowing and interest accrued during previous year;
- amount and source of money used by the municipality to repay municipal obligations to the D.C. reserve fund;
- list of credits by service or service category (outstanding at beginning of the year, given in the year and outstanding at the end of the year by holder);
- for credits granted under s.14 of the old D.C.A., a schedule identifying the value of credits recognized by the municipality, the service to which it applies and the source of funding used to finance the credit; and
- a statement as to compliance with s.s. 59(1) of the D.C.A., whereby the municipality shall not impose, directly or indirectly, a charge related to a development or a requirement to construct a service related to development, except as permitted by the D.C.A. or another Act.

Based upon the above, Figure 1, and Attachments 1 and 2, set out the format for which annual reporting to Council should be provided.

D.2 D.C. Reserve Fund Application

Section 35 of the D.C.A. states that:

“The money in a reserve fund established for a service may be spent only for capital costs determined under paragraphs 2 to 8 of subsection 5(1).”

This provision clearly establishes that reserve funds collected for a specific service are only to be used for that service, or to be used as a source of interim financing of capital undertakings for which a development charge may be spent.



Table D-1
City of Sarnia
Annual Treasurer's Statement of Development Charge Reserve Funds

Description	Services to which the Development Charge Relates											Total
	Non-Discounted Services						Discounted Services					
	Services Related to a Highway	Water Services	Wastewater Services	Stormwater Drainage and Control Services	Police Services	Fire Protection Services	Parking Services	Outdoor Recreation Services	Indoor Recreation Services	Library Services	Administration	
Opening Balance, January 1, _____												0
Plus:												
Development Charge Collections												0
Accrued Interest												0
Repayment of Monies Borrowed from Fund and Associated Interest ¹												0
Sub-Total	0	0	0	0	0	0	0	0	0	0	0	0
Less:												
Amount Transferred to Capital (or Other) Funds ²												0
Amounts Refunded												0
Amounts Loaned to Other D.C. Service Category for Interim Financing												0
Credits ³												0
Sub-Total	0	0	0	0	0	0	0	0	0	0	0	0
Closing Balance, December 31, _____	0	0	0	0	0	0	0	0	0	0	0	0

¹ Source of funds used to repay the D.C. reserve fund

² See Attachment 1 for details

³ See Attachment 2 for details

The Municipality is compliant with s.s. 59.1 (1) of the *Development Charges Act*, whereby charges are not directly or indirectly imposed on development nor has a requirement to construct a service related to development been imposed, except as permitted by the *Development Charges Act* or another Act.



**Attachment 1
City of Sarnia**

Amount Transferred to Capital (or Other) Funds - Capital Fund Transactions

Capital Fund Transactions	Gross Capital Cost	D.C. Recoverable Cost Share					Non-D.C. Recoverable Cost Share				
		D.C. Forecast Period		Post D.C. Forecast Period			Other Reserve/Reserve Fund Draws	Tax Supported Operating Fund Contributions	Rate Supported Operating Fund Contributions	Debt Financing	Grants, Subsidies Other Contributions
		D.C. Reserve Fund Draw	D.C. Debt Financing	Grants, Subsidies Other Contributions	Post-Period Benefit/Capacity Interim Financing	Grants, Subsidies Other Contributions					
Services Related to a Highway											
Capital Cost A											
Capital Cost B											
Capital Cost C											
Sub-Total - Services Related to Highways	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Services											
Capital Cost D											
Capital Cost E											
Capital Cost F											
Sub-Total - Water	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Wastewater Services											
Capital Cost G											
Capital Cost H											
Capital Cost I											
Sub-Total - Wastewater	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Amount Transferred to Operating (or Other) Funds - Operating Fund Transactions

Operating Fund Transactions	Annual Debt Repayment Amount	D.C. Reserve Fund Draw		Post D.C. Forecast Period			Non-D.C. Recoverable Cost Share		
		Principal	Interest	Principal	Interest	Source	Principal	Interest	Source
Services Related to a Highway									
Capital Cost J									
Capital Cost K									
Capital Cost L									
Sub-Total - Services Related to Highways	\$0	\$0	\$0	\$0	\$0		\$0	\$0	
Water Services									
Capital Cost M									
Capital Cost N									
Capital Cost O									
Sub-Total - Water	\$0	\$0	\$0	\$0	\$0		\$0	\$0	
Wastewater Services									
Capital Cost P									
Capital Cost Q									
Capital Cost R									
Sub-Total - Wastewater	\$0	\$0	\$0	\$0	\$0		\$0	\$0	



**Attachment 2
City of Sarnia**

Statement of Credit Holder Transactions

Credit Holder	Applicable D.C. Reserve Fund	Credit Balance Outstanding Beginning of Year _____	Additional Credits Granted During Year	Credits Used by Holder During Year	Credit Balance Outstanding End of Year _____
Credit Holder A					
Credit Holder B					
Credit Holder C					
Credit Holder D					
Credit Holder E					
Credit Holder F					



Appendix E

Local Service Policy



Appendix E: Local Service Policy

This Appendix sets out the Municipality's General Policy Guidelines on Development Charges (D.C.) and local service funding for Services Related to:

- Municipal and/or County Roads;
- Stormwater Management;
- City Transit Bus Stops and Amenities, such as shelters, benches, garbage and recycling receptacles;
- Parkland Development; and
- Underground Linear Services.

The guidelines outline, in general terms, the size and nature of engineered infrastructure that is included in the study as a development charge project, versus infrastructure that is considered as a local service, to be emplaced separately by landowners, pursuant to a development agreement.

The following policy guidelines are general principles by which staff will be guided in considering development applications. However, each application will be considered, in the context of these policy guidelines as subsection 59(2) of the Development Charges Act, 1997, on its own merits having regard to, among other factors, the nature, type and location of the development and any existing and proposed development in the surrounding area, as well as the location and type of services required and their relationship to the proposed development and to existing and proposed development in the area.

A. Services Related to a Highway

A highway and services related to a highway are intended for the transportation of people and goods via many different modes including, but not limited to passenger automobiles, commercial vehicles, transit vehicles, bicycles and pedestrians. The highway shall consist of all land and associated infrastructure built to support (or service) this movement of people and goods regardless of the mode of transportation employed, thereby achieving a complete street. A complete street is the concept whereby a highway is planned, designed, operated and maintained to enable pedestrians, cyclists, public transit users and motorists to safely and comfortably be moved, thereby allowing for the efficient movement of persons and goods. The



associated infrastructure to achieve this concept shall include, but is not limited to: road pavement structure and curbs; grade separation/bridge structures (for any vehicles, railways and/or pedestrians); grading, drainage and retaining wall features; culvert structures; storm water drainage systems; utilities; traffic control systems; signage; gateway features; street furniture; active transportation facilities (e.g. sidewalks, bike lanes, multi-use trails which interconnect the transportation network, etc.); transit lanes & lay-bys; roadway illumination systems; boulevard and median surfaces (e.g. sod & topsoil, paving, etc.); street trees and landscaping; parking lanes & lay-bys; (including on-street parking in the downtown) and driveway entrances; noise attenuation systems; railings and safety barriers.

The categories of roads (i.e. “highways”) in the City of Sarnia are explained in the City of Sarnia Official Plan and include:

- Provincial Highways
- Arterial Roads, which includes all County Roads
- Collector
- Local
- Private

1) Local and Collector Roads (including land)

- a. Collector Roads Internal to Development, inclusive of all land and associated infrastructure – direct developer responsibility under s.59 of the D.C.A. as a local service.
- b. Collector Roads External to Development, inclusive of all land and associated infrastructure – if needed to support a specific development or required to link with the area to which the plan relates, direct developer responsibility under s.59 of the D.C.A.; otherwise, included in D.C. calculation to the extent permitted under s.5(1) of the D.C.A. (dependent on local circumstances).
- c. All local roads are considered to be the developer’s responsibility.



2) Arterial Roads

- a. New, widened, extended or upgraded arterial roads, inclusive of all associated infrastructure including the enclosure of roadside ditches: Included as part of road costing funded through D.C.A., s.5 (1).
- b. Land acquisition for arterial roads on existing rights-of-way to achieve a complete street: dedication under the Planning Act provisions (s. 41, 51 and s. 53) through development lands; in area with limited development: included in D.C.'s.
- c. Land acquisition for arterial roads on new rights-of-way to achieve a complete street: dedication, where possible, under the Planning Act provisions (s. 51 and s. 53) through development lands up to the ROW specified in the Official Plan.
- d. Land acquisition beyond normal dedication requirements to achieve transportation corridors as services related to roads including grade separation infrastructure for the movement of pedestrians, cyclists, public transit and/or railway vehicles: included in D.C.'s.

3) Traffic Control Systems, Signals, and Intersection Improvements

- a. On new arterial roads and arterial road improvements unrelated to a specific development: included as part of road costing funded through D.C.'s.
- b. On non-arterial roads, or for any private site entrances or entrances to specific development: direct developer responsibility under s.59 of D.C.A. (as a local service).
- c. On arterial or collector road intersections with County roads: include in D.C.'s or in certain circumstances, may be a direct developer responsibility.
- d. Intersection improvements, new or modified signalization, signal timing & optimization plans, area traffic studies for roads attributed to growth and unrelated to a specific development: included in D.C. calculation as permitted under s.5(1) of the D.C.A.



4) Streetlights

- a. Streetlights on new arterial roads and arterial road improvements: considered part of the complete street and included as part of the road costing funded through D.C.'s or in exceptional circumstances, may be direct developer responsibility through local service provisions (s.59 of D.C.A.).
- b. Streetlights on non-arterial roads internal to development: considered part of the complete street and included as a direct developer responsibility under s. 59 of the D.C.A. (as a local service).
- c. Streetlights on non-arterial roads external to development, needed to support a specific development or required to link with the area to which the plan relates: considered part of the complete street and included as a direct developer responsibility under s. 59 of the D.C.A. (as a local service).

5) Transportation Related Pedestrian and Cycling Facilities

- a. Sidewalks, multi-use trails, protected bicycle lanes, and on-road bicycle lanes, inclusive of all required infrastructure, located within arterial roads, Municipal or County roads and provincial highway corridors: considered part of the complete street and included in D.C.'s, or, in exceptional circumstances, may be a direct developer responsibility through local service provisions (s.59 of D.C.A.).
- b. Sidewalks, multi-use trails, protected bicycle lanes, and on-road bicycle lanes, inclusive of all required infrastructure, located within or linking to non-arterial road corridors internal to development: considered part of the complete street and include in D.C.'s, or, where directly adjacent to the development, is a direct developer responsibility through local service provisions (s. 59 of D.C.A.).
- c. Other sidewalks, multi-use trails, protected bicycle lanes, and on-road bicycle lanes, inclusive of all required infrastructure, located within non-arterial road corridors external to development and needed to support a specific development or required to link with the area to which the plan



relates: direct developer responsibility under s.59 of D.C.A. (as a local service).

- d. Multi-use trails (not associated with a road), inclusive of all land and required infrastructure, that go beyond the function of a (parkland) recreation trail and form part of the municipality's active transportation network for bicycling and/or walking: include in D.C.'s.

6) Noise Attenuation Measures

- a. Noise attenuation measures external and internal to development where it is related to, or a requirement of a specific development: direct developer responsibility under s.59 of D.C.A. (as a local service).
- b. Noise attenuation measures on new arterial roads and arterial road improvements abutting an existing community and unrelated to a specific development: included as part of road costing funded through D.C.'s.

7) City Public Transit Lanes and Lay-bys

- a. City public transit lanes and lay-bys located within municipal arterial and County road corridors: considered part of the complete street and included in D.C.'s
- b. City public transit lanes and lay-bys located within non-arterial road corridors internal to development: considered part of the complete street and direct developer responsibility under s. 59 of the D.C.A. (as a local service).
- c. City public transit lanes and lay-bys located within non-arterial road corridors external to development and needed to support a specific development or required to link with the area to which the plan relates: direct developer responsibility under s. 59 of the D.C.A. (as a local service).

B. Stormwater Management

- a. Stormwater facilities servicing broad areas for quality and/or quantity management, including downstream erosion works, inclusive of land and



all associated infrastructure, such as landscaping and perimeter fencing: included in D.C.s; otherwise, if only serving a specific development then direct developer responsibility under s. 59 of the D.C.A as a local service (dependent on local circumstances).

- b. Over-sizing cost of stormwater facilities capacity, excluding land, to accommodate runoff from new, widened, extended or upgraded municipal arterial roads that are funded as a development charges project: included as part of road costing funded through D.C.'s.
- c. Erosion works, inclusive of all restoration requirements, related to a development application: direct developer responsibility under s. 59 of the D.C.A. (as a local service).
- d. Monitoring works: included in D.C.'s consistent with the D.C.A., s.5 (1).
- e. Storm sewer systems and municipal drainage works that are required for a specific development, either internal or external to the area to which the plan relates: direct developer responsibility under s. 59 of the D.C.A. (as a local service).

Note: for stormwater minimum pipe sizes, refer to Section E.

C. City Public Transit Bus Stops and Amenities

- a. City public transit bus stops and amenities internal to development: direct developer responsibility under s.59 of D.C.A. (as a local service).
- b. City public transit bus stops and amenities on arterial roads: included in Municipality's Transit D.C.'s consistent with D.C.A., s.5 (1).

D. Parkland Development

1) Recreational Trails

- a. Recreational trails (Multi-use trails) that do not form part of the municipality's active transportation network, and their associated infrastructure (landscaping, bridges, trail surface, etc.), is included in area municipal parkland D.C.'s.



2) Parkland

- a. Parkland Development for City-wide, Regional, and Waterfront Parks are included in D.C.'s.
- b. Parkland for Community Parks, Neighbourhood Parks and Parkettes: direct developer responsibility to provide land in base condition, with pre-grading, sodding or seeding, supply and installation of amended topsoil, (to the Municipality's required depth), and servicing if required, as a local service provision.
- c. Program facilities, playground equipment, amenities, and furniture, within all types of parks: are included in D.C.'s.
- d. Perimeter fencing to the Municipal standard located on the private property side of the property line adjacent to other land uses (such as but limited to private residential lots), as directed by the Municipality.

3) LANDSCAPE BUFFER BLOCKS, FEATURES, CUL-DE-SAC ISLANDS, BERMS, GRADE TRANSITION AREAS, WALKWAY CONNECTIONS TO ADJACENT ARTERIAL ROADS, OPEN SPACE, ETC.

- a. The cost of developing all landscape buffer blocks, landscape features, cul-de-sac islands, berms, grade transition areas, walkway connections to adjacent arterial roads, open space and other remnant pieces of land conveyed to the municipality shall be a direct developer responsibility as a local service. Such costs include but are not limited to:
 - i. pre-grading, sodding or seeding, supply and installation of amended topsoil, (to the Municipality's required depth), landscape features, perimeter fencing and amenities and all planting.
 - ii. Perimeter fencing to the Municipal standard located on the public property side of the property line adjacent to other land uses (such as but limited to arterial roads) as directed by the Municipality.



4) NATURAL HERITAGE SYSTEM (N.H.S.)

N.H.S. includes engineered and in situ stream corridors, natural buffers for woodlots, woodlots, wetland remnants, etc. as well as subwatersheds within the boundaries of the Municipality.

Direct developer responsibility as a local service provision including but not limited to the following:

- a. Planting and landscaping requirements (as required by the Municipality, Conservation Authority or other authorities having jurisdiction) as a result of creation of, or construction within in the N.H.S. and associated buffers.
- b. Perimeter fencing of the N.H.S. to the Municipal standard located on the public property side of the property line adjacent to other land uses (residential, industrial, commercial) as required by the Municipality.
- c. All works are to be in conformance with the approved studies and reports related to the Secondary Plan that development occurs in or the Environmental Impact Study associated with the development.

5) Infrastructure Assets Constructed by Developers (Under Section D)

- a. All infrastructure assets constructed by Developers must be designed in accordance with the Municipality's Standards.
- b. All infrastructure assets shall be conveyed in accordance with the Municipality's Standards.
- c. Any Parks and Open Space infrastructure assets approved to be built by the developer on behalf of the Municipality shall be in accordance with the Municipality's Standards

E. Underground Services (Stormwater, Water, and Sanitary Sewers)

Underground services (linear infrastructure for stormwater, water, and sanitary services) within the road allowance are not included in the cost of road infrastructure and are treated separately. The responsibility for such services as well as



stormwater management ponds and pumping stations, which are undertaken as part of new developments or redevelopments, will be determined by the following principles:

- 1) The costs of the following items shall be direct developer responsibilities as a local service:
 - a. providing all underground services internal to the development, including storm, water and sanitary services;
 - b. providing service connections from existing underground services to the development;
 - c. providing new underground services or upgrading existing underground services external to the development if the services are required to service individual developments, and if the pipe sizes do not exceed 250mm for water and sanitary services and 900 mm for stormwater services;
 - d. water booster pumping stations, reservoir pumping stations, stormwater management facilities and/or sanitary pumping stations serving individual developments.

- 2) The costs of the following items shall be paid through development charges:
 - a. external underground services involving trunk infrastructure and pipe sizes exceeding 250mm for water and sanitary services and 900mm for stormwater services;
 - b. services within the right of way of an arterial road or collector road external to a development servicing more than one development;
 - c. water, reservoir, stormwater management facilities and/or sanitary pumping stations not required for the individual development; and
 - d. Water treatment, storage facilities, transmission mains, re-chlorination/sampling stations and Wells associated with municipal service areas; and



- e. Wastewater treatment plants and sewage transmission mains associated with municipal service areas.



Appendix F

Asset Management Plan



Appendix F: Asset Management Plan

The recent changes to the D.C.A. (new section 10(2) (c.2)) require that the Background Study must include an asset management plan related to new infrastructure. Section 10(3) of the D.C.A. provides:

The asset management plan shall,

- (a) deal with all assets whose capital costs are proposed to be funded under the development charge by-law;**
- (b) demonstrate that all the assets mentioned in clause (a) are financially sustainable over their full life cycle;**
- (c) contain any other information that is prescribed; and**
- (d) be prepared in the prescribed manner.**

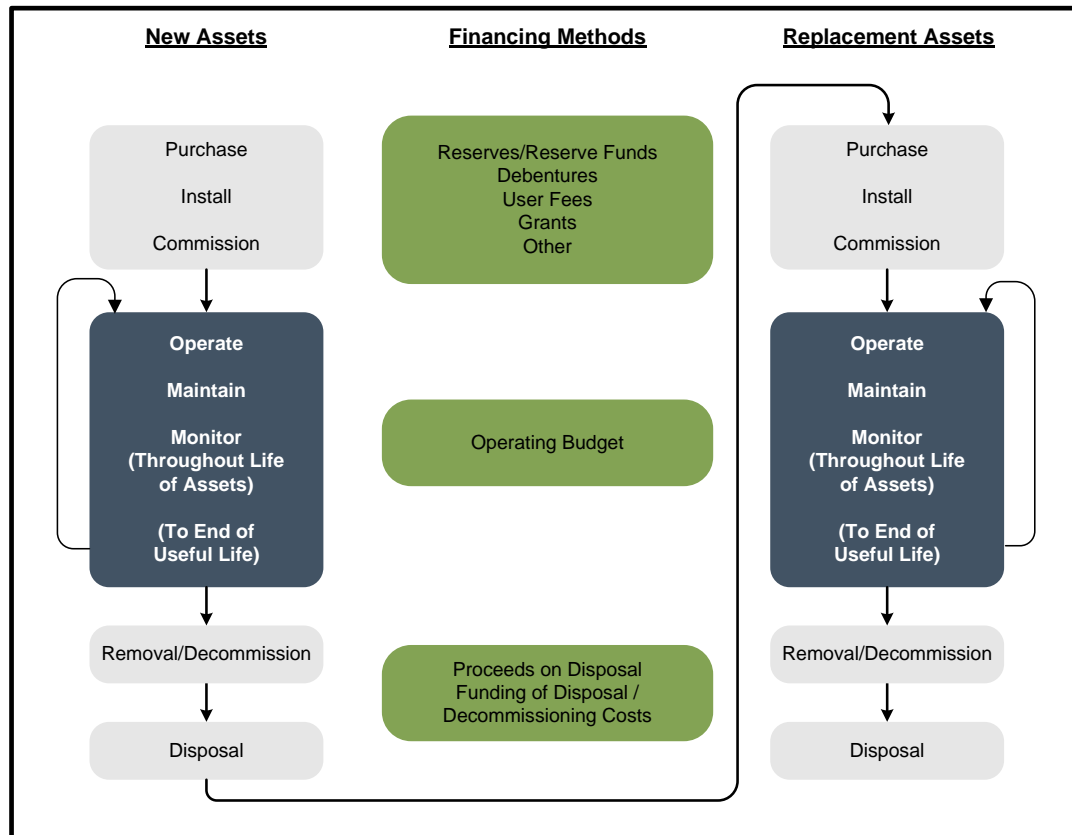
In regard to the above, section 8 of the Regulations was amended to include subsections (2), (3) and (4) which set out for specific detailed requirements for transit (only). For all services except transit, there are no prescribed requirements at this time thus requiring the municipality to define the approach to include within the Background Study.

At a broad level, the Asset Management Plan provides for the long-term investment in an asset over its entire useful life along with the funding. The schematic below identifies the costs for an asset through its entire lifecycle. For growth-related works, the majority of capital costs will be funded by the D.C. non-growth-related expenditures will then be funded from non-D.C. revenues as noted below. During the useful life of the asset, there will be minor maintenance costs to extend the life of the asset along with additional program related expenditures to provide the full services to the residents. At the end of the life of the asset, it will be replaced by non-D.C. financing sources.

It should be noted that with the recent passing of the Infrastructure for Jobs and Prosperity Act (I.J.P.A.) municipalities are now required to complete asset management plans, based on certain criteria, which are to be completed by 2021 for core municipal services and 2023 for all other services. The amendments to the D.C.A. do not require municipalities to complete these asset management plans (required under I.J.P.A.) for



the D.C. background study, rather the D.C.A. requires that the D.C. background study include information to show the assets to be funded by the D.C. are sustainable over their full lifecycle.



In 2012, the Province developed Building Together: Guide for municipal asset management plans which outlines the key elements for an asset management plan (A.M.P.), as follows:

State of local infrastructure: asset types, quantities, age, condition, financial accounting valuation and replacement cost valuation.

Desired levels of service: defines levels of service through performance measures and discusses any external trends or issues that may affect expected levels of service or the municipality's ability to meet them (for example, new accessibility standards, climate change impacts).



Asset management strategy: the asset management strategy is the set of planned actions that will seek to generate the desired levels of service in a sustainable way, while managing risk, at the lowest lifecycle cost.

Financing strategy: having a financial plan is critical for putting an A.M.P. into action. By having a strong financial plan, municipalities can also demonstrate that they have made a concerted effort to integrate the A.M.P. with financial planning and municipal budgeting and are making full use of all available infrastructure financing tools.

Commensurate with the above, the City prepared an Asset Management Plan in 2018 for its existing core assets, however, did not take into account all future growth-related assets identified in this study. As a result, the asset management requirement for the D.C. must be undertaken in the absence of this information.

In recognition to the schematic above, the following table (presented in 2019 \$) has been developed to provide the annualized expenditures and revenues associated with new growth. Note that the D.C.A. does not require an analysis of the non-D.C. capital needs or their associated operating costs so these are omitted from the table below. As well, as all capital costs included in the D.C. eligible capital costs are not included in the City's Asset Management Plan, the present infrastructure gap and associated funding plan have not been considered at this time. Hence the following does not represent a fiscal impact assessment (including future tax/rate increases) but provides insight into the potential affordability of the new assets:

1. The non-D.C. recoverable portion of the projects which will require financing from municipal financial resources (i.e. taxation, rates, fees, etc.). This amount has been presented on an annual debt charge amount based on 20-year financing.
2. Lifecycle costs for the 2019 D.C. capital works have been presented based on a sinking fund basis. The assets have been considered over their estimated useful lives.
3. Incremental operating costs for the D.C. services (only) have been included.
4. The resultant total annualized expenditures are \$12.78 million.
5. Consideration was given to the potential new taxation and user fee revenues which will be generated as a result of new growth. These revenues will be



available to finance the expenditures above. The new operating revenues are \$2.41 million. This amount, totalled with the existing operating revenues of \$145.70 million, provide annual revenues of \$148.10 million by the end of the period.

6. In consideration of the above, the capital plan is deemed to be financially sustainable.

City of Sarnia
Asset Management – Future Expenditures and Associated Revenues
2019\$

Asset Management Summary	2031 (Total)
Expenditures (Annualized)	
Annual Debt Payment on Non-Growth Related Capital ¹	4,175,702
Annual Debt Payment on Post Period Capital ²	4,235,189
Lifecycle:	
Annual Lifecycle - All Services	\$6,991,290
Incremental Operating Costs (for D.C. Services)	\$1,609,732
Total Expenditures	\$12,776,724
Revenue (Annualized)	
Total Existing Revenue ³	\$145,695,736
Incremental Tax and Non-Tax Revenue (User Fees, Fines, Licences, etc.)	\$2,406,779
Total Revenues	\$148,102,515

¹ Non-Growth Related component of Projects including 10% mandatory deduction on soft services

² Interim Debt Financing for Post Period

³ As per Sch. 10 of FIR



Appendix G

Proposed D.C. By-law



BY-LAW NUMBER ___ OF 2019
OF THE CITY OF SARNIA

"A By-Law of The Corporation of the City of Sarnia respecting Development Charges"
(Re: Development Charges By-law)

WHEREAS subsection 2(1) of the Development Charges Act, 1997, provides that the Council of a municipality may by By-law impose development charges against land to pay for increased capital costs required because of increased needs for services arising from development of the area to which the Bylaw applies;

AND WHEREAS Council wishes to ensure that the capital Cost of meeting growth related demands for municipal services does not place an undue financial burden on the City or its taxpayers while, at the same time, ensuring new taxpayers contribute no more than the New Capital Cost attributable to providing the current level of municipal services to new development;

AND WHEREAS the Development Charges Act, 1997, c.27 permits Councils to pass a By-law for the imposition of Development Charges if the Development of land within the City will increase the need for municipal services and any one or more of the actions set out in Subsection 2(2) of the Act is required for such Development;

AND WHEREAS the City has undertaken a background study as required by Sections 10 and 11 of the Development Charges Act and has given notice in accordance with Section 12 of the Development Charges Act in order to solicit input;

AND WHEREAS a public meeting has been held before passage of this By-law with notice given and sufficient information made available to the public pursuant to Section 12 of the Development Charges Act, 1997;

NOW THEREFORE the Municipal Council of the Corporation of the City of Sarnia enacts as follows:

1. DEFINITIONS

1.1. In this by-law,

- 1) "Act" means the Development Charges Act, 1997, c. 27, as amended, or any successor thereto;



- 2) "Accessory use" means where used to describe a use, building, or structure, that the use, building or structure is naturally and normally incidental, subordinate in purpose of floor area or both, and exclusively devoted to a principal use, building or structure;
- 3) "Apartment dwelling" means any dwelling unit within a building containing more than four dwelling units where access to each residential unit is obtained through a common entrance or entrances from the street level and the residential units are connected by an interior corridor;
- 4) "Bedroom" means a habitable room larger than seven square metres, including a den, study, or other similar area, but does not include a living room, dining room or kitchen;
- 5) "Board of education" means a board defined in subsection 1(1) of the Education Act, or any successor thereto;
- 6) "Building Code Act" means the Building Code Act, 1992, as amended, or any successor thereto;
- 7) "Capital cost" means costs incurred or proposed to be incurred by the City or any Local Board thereof, or the County in respect of County Roads only, either directly or by others on behalf of, and as authorized by the City, any Local Board thereof, or the County where those costs are one of the following:
 - i. costs to acquire lands or an interest in land, including the capital component of the costs to acquire a leasehold interest;
 - ii. costs to improve lands;
 - iii. costs to acquire, lease, construct or improve buildings and structures;
 - iv. costs to acquire, lease, construct or improve facilities, including:
 - (1) rolling stock with an estimated useful life of seven years or more,
 - (2) furniture and equipment, other than computer equipment, and



- (3) materials acquired for circulation, reference or information purposes by a library board defined in the Public Libraries Act;
 - v. costs to undertake studies in connection with any matter under the Act and any matters in clauses i to iv hereof;
 - vi. costs of the development charges background study required in Section 10 of the Act; or
 - vii. interest on money borrowed to pay costs described in clauses i to iv, hereof;
 - viii. to undertake studies in connection with any matters under the Act and any of the matters referred to in clauses i to vii including the development charges background study
 - ix. required for the provision of services designated in this by-law within or outside the municipality, including interest on borrowing for those expenditures under clauses i to vii that are growth-related;
- 8) "City" means The Corporation of the City of Sarnia;
 - 9) "Commercial use" means the use of any land, building or structure for the sale of goods or services at retail;
 - 10) "Council" means the Council of the City;
 - 11) "County" means the Corporation of the County of Lambton;
 - 12) "Development" means the construction, erection or placing of one or more buildings or structures on land or the making of an addition or alteration to a building or structure that has the effect of increasing the size or usability thereof, and includes redevelopment;
 - 13) "Development charge" means a means a charge imposed with respect to Net Growth-related capital Costs against lands in the City under the Development Charges Act and calculated with this By-law;
 - 14) "Dwelling unit" means one or more rooms for domestic use of one or more individuals living as a single housekeeping unit in which culinary and



sanitary facilities are provided for the exclusive use of the individual or individuals. For the purposes of this by-law, 'dwelling unit' does not include special care/special dwelling unit/room;

- 15) "Existing industrial building" means a building or buildings existing on site in the City of Sarnia on the day this by-law comes into effect or the first building constructed and occupied on a vacant site pursuant to site plan approval under Section 41 of the Planning Act, R.S.O. c.P.13 of the Planning Act subsequent to this by-law coming to effect for which full development charges were paid, and is being used for or in conjunction with,
- i. the production, compounding, packaging, crating, bottling, packing or assembling of raw or semi-processed goods or materials in not less than seventy-five percent of the total gross floor area of the building or buildings on a site ("manufacturing") or warehousing related to the manufacturing use carried on in the building or buildings;
 - ii. research or development in connection with manufacturing in not less than seventy-five percent of the total gross floor area of the building or buildings on a site;
 - iii. retail sales by a manufacturer, if the retail sales are at the site where the manufacturing is carried out, such retail sales are restricted to goods manufactured at the site, and the building or part of a building where such retail sales are carried out does not constitute greater than twenty-five percent of the total gross floor area of the building or buildings on the site; or
 - iv. office or administrative purposes, if they are,
 - (1) carried out with respect to manufacturing or warehousing; and
 - (2) in or attached to the building or structure used for such manufacturing or warehousing;



- 16) "Farm building" means that part of a bona fide farm operation encompassing barns, silos and other ancillary development to an agricultural use, but excluding a residential use;
- 17) "Front ending agreement" means an Agreement made under Section 44 of the Act;
- 18) "Grade" means the average level of finished ground adjoining a building or structure at all exterior walls;
- 19) "Gross floor area" means the total floor area of all floors above grade of a dwelling unit measured between the outside surfaces of exterior walls or between the outside surfaces of exterior walls and the centre line of party walls dividing the dwelling unit from other dwelling units or other portion of a building;
 - i. in the case of a Residential Use building or structure or in the case of the Residential Use portion of a mixed-use building or structure, the total area of all floors above grade of any and all Dwelling Units measured between the outside surfaces of exterior walls and the centre lines of party walls dividing the dwelling Unit or other portion of a building;
 - ii. in the case of a Non-Residential Use building or structure, or in the case the Non-Residential Use portion of a mixed-use building or structure, the total area of all building floors above or below grade.
- 20) "Growth Related New Capital Cost" means the portion of the Net Capital Cost of services that is reasonably attributable to the need for such Net Capital Cost that results from, or will result from, development in all or a defined part of the City;
- 21) "Industrial Use" means lands, buildings or structures used or designed or intended to use for manufacturing, processing, fabricating or assembly of raw goods, warehousing or bulk storage of goods, and includes office uses and the sale of commodities to the general public where such uses are accessory to an industrial use, but does not include the sale of commodities to the general public through a warehouse club;



- 22) "Institutional" means lands, buildings or structures or portions thereof used by any organization, owned or operated, on a not for profit basis, for religious, educational, charitable or government purposes supported in whole or in part by public funds;
- 23) "Local board" has the same definition as defined in the Development Charges Act, 1997;
- 24) "Local services" means those services, facilities or things which are under the jurisdiction of the municipality and are related to a plan of subdivision or within the area to which the plan relates in respect of the lands under Sections 41, 51 or 53 of the Planning Act R. s.0. 1990, as amended or any successor thereto;
- 25) "Multiple dwellings" means all dwellings other than single detached dwellings, semi-detached dwellings, and apartment house dwellings;
- 26) "Net capital cost" means the Capital Cost less capital grants, subsidies made to the City or that the Council of the City anticipates will be made, including conveyances or payments under Section 42, 51 and 53 of the Planning Act, R.S.O. 1990, as amended, and less the reductions required by subsection 5(8) of the Act;
- 27) "Non-residential use" means a building or structure of any kind whatsoever used, designed or intended to be used for other than a residential use and includes all commercial, industrial and institutional uses;
- 28) "Non-serviced industrial buildings and structures used exclusively for storage" means buildings and structures located within an industrial zone that are not serviced by municipal or private water and/or sewage systems and are used exclusively for the warehousing or storage of goods accessory to the industrial use.
- 29) "Official plan" means the Official Plan of the Corporation of the City of Sarnia and any amendments thereto;



- 30) "Owner" means the owner of land or a person who has made application for an approval for the development of land upon which a development charge is imposed;
- 31) "Planning Act" means the Planning Act, R.S.O. 1990, as amended;
- 32) "Rate" means the interest rate established weekly by the Bank of Canada;
- 33) "Regulation" means any regulation made pursuant to the Act;
- 34) "Residential use" means lands, buildings or structures of any kind whatsoever used, designed or intended to be used as living accommodations for one or more individuals;
- 35) "Semi-detached dwelling" means a dwelling unit in a residential building consisting of two dwelling units having one vertical wall or one horizontal wall, but no other parts, attached or another dwelling unit where the residential units are not connected by an interior corridor;
- 36) "Services" (or "service") means those services set out in Schedule "A" to this By-law;
- 37) "Servicing agreement" means a servicing agreement, subdivision agreement, severance agreement, condominium agreement, site plan agreement or other similar agreement entered into between an Owner and the City;
- 38) "Single detached dwelling unit" means a residential building consisting of one dwelling unit and not attached to another structure and includes mobile homes.
- 39) "Special care/special dwelling unit/room" means a residence:
 - i. containing two or more dwelling rooms, which rooms have common entrance from street level; and
 - ii. where the occupants have the right to use in common with other occupants, halls, stairs, yards, common room and accessory buildings; and



- iii. that is designed to accommodate persons with specific needs, including but not limited to, independent permanent living arrangements; and where support services, such as meal preparation, grocery shopping, laundry, housing, nursing, respite care and attending services are provided at various levels; and includes but is not limited to retirement homes or lodges, group homes, dormitories, and hospices

2. DESIGNATION OF SERVICES

2.1. The categories of services for which development charges are imposed under this by-law are as follows:

- 1) Services Related to a Highway;
- 2) County Roads;
- 3) Fire Protection Services;
- 4) Police Services;
- 5) Outdoor Recreation Services;
- 6) Administration Studies;
- 7) Storm drainage and control services;
- 8) Wastewater; and
- 9) Water.

2.2. Components of the services designated in Subsection 2.1 are described in Schedule "A".

3. APPLICATION OF BY-LAW RULES

3.1. Development charges shall be payable in the amounts set out in this by-law where:

- 1) the lands are located in the area described in Subsection 3.2 and
- 2) the development of the lands requires any of the approvals set out in Subsection 3.4(1).

Lands Affected

3.2. Subject to Subsection 3.3 this by-law applies to all lands in the geographic area of the City of Sarnia.



- 1) the City-wide Development Charges described in Schedule "B", to this by-law shall be calculated and collected on all lands designated within the City;
- 2) the Urban Services – All Other Urban Areas Development Charges described in Schedules "B", to this by-law shall be calculated and collected on all lands designated as "Urban Area" in Schedule "C"; and
- 3) the Urban Services – Development Area 2 Development Charges described in Schedules "B", to this by-law shall be calculated and collected on all lands designated as "Development Area 2" in Schedule "C".

3.3.

- 1) This By-law applies to all land in the City of Sarnia, whether or not the lands or use thereof is exempt from taxation under Section 3 of the Assessment Act.
- 2) Notwithstanding subsection 3.3(1) above, land that is owned by and used for the purpose of:
 - i. the City or any local board thereof, or
 - ii. the County, or
 - iii. a Board as defined in Section 1(1) of the Education Act, R.S.O. 1990, c.E.2 is exempt from the payment of a Development Charge.

3.4. Approvals for Development

- 1) Development charges shall be imposed on all lands, buildings or structures that are developed for residential or non-residential uses if the development requires,
 - i. the passing of a zoning by-law or an amendment to a zoning Section 34 of the Planning Act, R.5.0. 1990;
 - ii. the approval of a minor variance under Section 45 of the Planning Act, R.S.O. 1. 990;



- iii. a conveyance land to a by-law passed under Subsection 50(7) of the Planning Act, R.S.O. 1990, applies;
 - iv. the approval of a plan of subdivision under Section 51 of the Planning Act;
 - v. a consent under Section 53 of the Planning Act;
 - vi. the approval of a description under Section 50 of the Condominium Act, R.S.O. 1990; or
 - vii. the issuing of a permit under the Building Code Act S. 0. 1990, in relation to a building or structure.
- 2) No more than one development charge for each service designated in Subsection 2.1 shall be imposed upon any lands, buildings or structures to which this by-law applies even though two or more of the actions described in Subsection 3.4(1) are required before the lands, buildings or structures can be developed.
 - 3) Despite Subsection 3.4(2), if two or more of the actions described in Subsection 3.4(1) occur at different times, additional development charges shall be imposed if the subsequent action has the effect of increasing the need for services.

Exemptions

3.5. Notwithstanding the provisions of this by-law, development charges shall not be imposed with respect to:

- 1) a non-residential farm building or structure on a property actively used for agricultural purposes in the rural zones as identified in the City's Zoning By-law;
- 2) a use of land that does not involve a building structure, such as playing fields, ball diamonds and other similar outdoor recreation facilities;
- 3) development in the Sarnia 402 Business Park located between Airport Road, Telfer Road, London Line and Highway 402 or in the Sarnia Business



and Research Park and the University of Western Ontario Research and Development Park (Sarnia-Lambton Campus) located on the east side of Highway 40 south of London Line; and

- 4) temporary buildings and structures as defined in the City's Zoning By-law, non-serviced industrial buildings and structures used exclusively for storage, and airport hangars.

3.6. Exemption for Industrial Development:

- 1) Notwithstanding any other provision of this by-law, there shall be an exemption from the payment of development charges for one or more enlargements of an existing industrial building on its site, whether attached or separate from the existing industrial building, up to a maximum of fifty percent of the gross floor area before the first enlargement for which an exemption from the payment of development charges was granted pursuant to the Development Charges Act or this subsection. Development charges shall be imposed in accordance with Schedule "B" with respect to the amount of the floor area of an enlargement that results in the gross floor area of the industrial building being increased by greater than fifty percent of the gross floor area of the existing industrial building.
- 2) For the purpose of this section, despite any new sites created which result in an existing building being on a site separate from its enlargement or enlargements for which an exemption was granted under this section, further exemptions, if any, pertaining to the existing industrial building shall be calculated in accordance with subsection 3.6(1) on the basis of its site prior to any division.

3.7. For the purpose of section 3.6 herein, "existing industrial building" is used as defined in the Regulation made pursuant to the Act.

Amount of Charges

Residential

3.8. The development charges described in Schedule "B" to this by-law shall be imposed on residential uses of lands, buildings or structures, including a



dwelling unit accessory to a non-residential use and, in the case of a mixed use building or structure, on the residential uses in the mixed use building or structure, according to the type of residential unit, and calculated with respect to each of the services according to the type of residential use.

Non-Residential Uses

3.9. The development charges described in Schedule "B" to this by-law shall be imposed on non-residential uses of lands, buildings or structures, and, in the case of a mixed use building or structure, on the non-residential uses in the mixed use building or structure, and calculated with respect to each of the services according to the gross floor area of the non-residential use.

Redevelopment

3.10.

- 1) Where the redevelopment of lands involves the replacement of one or more buildings or structures, existing on the land or converted from one principal use to another principal use on the same land, the Owner shall receive a credit against the Development Charge payable hereunder for the replaced Residential Unit(s) or Non-residential Gross Floor Area or acreage (at the owner's option), at the rate or rates applicable to the type of use or uses that are removed from the land, regardless of the type of the redevelopment provided that a building permit has been issued within five (5) years from the date of the demolition permit;
- 2) A credit can, in no case, exceed the amount of the development charge that would otherwise be payable, and no credit is available if the existing land use is exempt under this by-law.

Local Services and Connections

3.11.

- 1) Nothing in this By-law prevents Council from requiring, as a condition of approval under Section 41, 51 and 53 of the Planning Act that Local



Services and local connections to watermains, sanitary sewers and storm drainage facilities be installed at the Owner's expense; and

- 2) Nothing in this By-law prevents Council from charging an Owner for the cost of Local Services which are required for Development, where such Local services are installed at the expense of the City or another Owner.

4. AGREEMENTS REGARDING PAYMENT OF DEVELOPMENT CHARGES

4.1.

- 1) Nothing in this By-law prevents Council from entering into an agreement with an Owner providing for the payment of a Development Charge before the date otherwise required for payment hereunder.
- 2) Where an Owner has entered into an agreement under this Section, the Owner shall only be required to pay the Development Charge in effect on the date it is payable under the agreement.

5. FRONT ENDING AGREEMENTS

5.1. Council may, from time to time and at any time, enter into a Front Ending Agreement as authorized by Section 44 of the Act.

6. COMPLAINTS ABOUT DEVELOPMENT CHARGES

6.1.

- 1) An Owner required to pay a Development Charge may complain to Council that:
 - i. the amount of the Development Charge was incorrectly determined;
 - ii. a credit available to be used against the Development Charge was not applied, or the amount of credit or service with respect to the which the credit was applied, was incorrectly determined; or
 - iii. there was an error in the application of the Development Charge By-law.



- 2) Such complaint must be received within 90 days of the Development Charge being paid and must be in written form indicating:
 - i. the complainant's name;
 - ii. address for service of notice; and
 - iii. reasons for the complaint.

7. ADMINISTRATION

7.1.

- 1) Council directs the Treasurer of the City to create a reserve fund separate from the other revenues or receipts of the City of Sarnia. The Treasurer is hereby directed to divide the reserve fund into separate sub-accounts for each of the Services for which a Development Charge is payable. The Treasurer shall deposit the Development Charges paid under this By-law and any interest earned thereon to the credit of the appropriate sub-accounts of the reserve fund and shall pay there from any amount necessary to defray the Net Capital Cost of Services in accordance with the provisions of s.35 of the Development Charges Act, 1997.
- 2) The amount contained in the reserve fund established under Section 14 of this By-law shall be invested in accordance with subsection 165(2) of the Municipal Act, R.S.O. 1990, c. M.45, as amended, and any income received from such investment shall be credited to the sub-accounts in the said reserve fund in the appropriate proportions.
- 3) The Treasurer shall each year on or before the 31st day of May, give the Council a financial statement relating to a Development Charge By-law and reserve funds established hereunder containing the information required under the Regulations.

8. DEVELOPMENT CHARGE

- 8.1. No Development shall take place on any lands within the City unless a Development Charge has been paid for each Category of Use in an amount as



set out in Schedule "B" of this By-law for the Category of Use that is being Developed and subject to the following:

- 1) the Development Charge shall be calculated as of the date of the first building permit under the Building Code Act is issued in respect of the building or structure for the use to which the Development Charge applies;

8.2. Development Charges imposed herein are payable by way of cash or certified Cheque prior to the issuance of a building permit or at the time of commencing development or redevelopment which ever first occurs.

9. SERVICES IN LIEU OF DEVELOPMENT CHARGES

9.1. Council, by written agreement, and subject to Sections 38, 39, 40 and 41 of the Act, may permit an Owner to commute all or part of the Development Charge by the provision of one or more services in lieu, provided such services in lieu are at a standard, that is equal to but not greater than the standard for the equivalent Service for which a Development Charge is payable hereunder. Such Agreement shall provide a credit equal to the reasonable cost to the Owner of providing the service in lieu, but such credit shall not exceed the Development Charge payable for the Development.

10. INDEXING

10.1. Development charges imposed pursuant to this by-law shall be adjusted annually, without amendment to this by-law, commencing on January 1, 2020 and each January 1 thereafter, in accordance with the Statistics Canada Quarterly, Non-Residential Building Construction Price Index (Table 18-10-0135-01) for the most recent year-over-year period.

11. REGISTRATION

11.1. A copy of this By-law shall be registered in the By-law register in the Land Registry Office against all lands in the City.

12. SEVERABILITY

12.1. If any section or sections of this By-law or parts thereof shall be found by any Court to be illegal or beyond the power of Council to enact, such section or



sections or parts thereof shall be to be severable and all other sections or parts of this By-law shall be deemed to be separate and independent there from and continue in full force and effect and unless and until similarly found this By-law shall be enacted as such.

13. INTERPRETATION

13.1. The By-law shall be read with all changes to number and gender required by the context

14. SCHEDULES

14.1. The following schedules to this by-law form an integral part thereof:

- Schedule "A" Components of Services Designated in Subsection 2.1
- Schedule "B" Residential and Non-Residential Development Charges.
- Schedule "C" Urban-area Map for Urban-area Water, Wastewater, and Stormwater Services
- Schedule "D" Development Area 2 Map for Area-specific Water, Wastewater, and Stormwater Services

15. SHORT TITLE

15.1. The short title of this By-law is "Development Charges" By-law.

16. DATE BY-LAW IN FORCE

16.1. This by-law shall come into force on May 27, 2019.

17. REPEAL

17.1. Upon the coming into force of this by-law, By-law No. 56 of 2014 of the City of Sarnia is hereby repealed.

FINALLY PASSED this 27th day of May 2019.



Mayor

City Solicitor/Clerk



SCHEDULE "A"
TO BY-LAW NUMBER -- of 2019
DESIGNATED MUNICIPAL SERVICES UNDER THIS BY-LAW

100% Eligible Services

Services Related to a Highway

- Roads, Sidewalks, Signals and Streetlights
- Public Works Facilities, Fleet, and Equipment
- County Roads

Fire Protection Services

- Fire Facilities
- Fire Vehicles
- Fire Equipment and Gear

Police Services

100% Eligible Services - Urban Services

Stormwater Services

- Channels, Drainage

Wastewater Services

- Treatment
- Collection

Water Services

- Distribution

90% Eligible Services

Administration Studies

Parking Services

Outdoor Recreation Services

- Parkland development, amenities, and trails
- Parks Vehicles



SCHEDULE "B"
TO BY-LAW NUMBER -- OF 2019 OF THE CITY OF SARNIA
SCHEDULE OF DEVELOPMENT CHARGES
EFFECTIVE MAY 27, 2019

Service	RESIDENTIAL					NON-RESIDENTIAL
	Single and Semi-Detached Dwelling	Other Multiples	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Special Care/Special Dwelling Units	(per sq.ft. of Gross Floor Area)
City-wide Services:						
Services Related to a Highway	7,235	5,278	4,968	3,278	2,941	3.25
Parking Services	70	51	48	32	28	0.03
Fire Protection Services	590	430	405	267	240	0.27
Police Services	448	327	308	203	182	0.20
Outdoor Recreation Services	1,631	1,190	1,120	739	663	0.33
Administration	147	107	101	67	60	0.07
Total City-wide Services	10,121	7,383	6,950	4,586	4,114	4.15
Urban Services - All Other Urban Areas						
Stormwater Drainage and Control Services	578	422	397	262	235	0.31
Wastewater Services	7,398	5,397	5,080	3,352	3,007	3.60
Total Urban Services - All Other Urban Areas	7,976	5,819	5,477	3,614	3,242	3.91
Urban Services - Development Area 2						
Stormwater Drainage and Control Services	10,019	7,309	6,879	4,539	4,073	6.02
Wastewater Services	16,783	12,243	11,524	7,604	6,822	7.49
Water Services	595	434	409	270	242	0.27
Total Urban Services - Development Area 2	27,397	19,986	18,812	12,413	11,137	13.78
GRAND TOTAL RURAL AREA	10,121	7,383	6,950	4,586	4,114	4.15
GRAND TOTAL ALL OTHER URBAN AREAS	18,097	13,202	12,427	8,200	7,356	8.06
GRAND TOTAL DEVELOPMENT AREA 2	37,518	27,369	25,762	16,999	15,251	17.93



SCHEDULE "C"
TO BY-LAW NUMBER -- OF 2019 OF THE CITY OF SARNIA
URBAN GROWTH BOUNDARY AND DEVELOPMENT AREA 2 MAP

