

**REGION OF NIAGARA  
2012 DEVELOPMENT CHARGE  
BACKGROUND STUDY**

MAY 22, 2012



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 Planning for growth

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## **EXECUTIVE SUMMARY**

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## EXECUTIVE SUMMARY

### 1. Purpose of this Background Study

- 1.1 This Background Study has been prepared pursuant to Section 10 of the *Development Charges Act, 1997* (DCA) and, together with the proposed by-law, is being made available to the public, as required by Section 12 of the Act, more than two weeks prior to the public meeting of Council, which is to be held June 6, 2012.
- 1.2 The Region's by-law is proposed to be updated approximately two years prior to its expiry in 2014, in order to have regard for the growth forecasts revised to 2031 and the related water and wastewater servicing masterplans associated therewith.<sup>1</sup> In addition, the Background Study reflects the consideration given to area-specific and use-specific development charges that have been under review by the Region for the past two years.
- 1.3 The charges calculated represent those which can be recovered under the DCA, 1997, based on the Region's capital spending plans and other assumptions which are responsive to the requirements of the DCA. A decision is required by Council, after receiving input at the public meeting and any other consultation sessions and receiving the completed study and by-law, as to the magnitude of the charge it wishes to establish, for residential and non-residential development. Property tax, user rate or other funding will be required to finance any potentially DC-recoverable capital costs which are not included in the charge which is adopted.
- 1.4 Other decisions are also involved in finalizing development charge policy and the by-law, including the application of use-specific and area-specific charges, collection timing, full or partial exemptions, phasing in, indexing, applicability to redevelopment and the schedule of charges by type of land use. It is the purpose of the public meeting and consultation activity, to obtain input on these matters.

### 2. The 2012 Development Charge Calculation

- 2.1 Table ES-1 presents the proposed schedule of development charges, based on the costing and related assumptions contained in Appendices B & C, in comparison with the Region's existing development charges. The calculated charges are reflected in the proposed by-law contained in Appendix F and presently consist of a Region-wide proposal for all services.
- 2.2 Table ES-2 summarizes the Region's Development Related Capital Program and the deductions made thereto, in accordance with the DCA. In summary, the gross development-related capital cost of the entire DC program is \$723.0 million. Of this amount, \$356.1 million has been determined to be DC-recoverable over the two

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<sup>1</sup> Development in Niagara in recent years has under-performed the short-term portion of the long-term forecast, as a result of economic conditions. Should this trend continue on a sustained basis, it may be necessary, in future years, to modify the growth forecast and the associated servicing requirements and potentially to increase the future development charge.

planning periods (\$251.1 million from residential development and \$105.0 million from non-residential development. The difference between the gross and DC recoverable amounts comprises the following deductions, pursuant to the *Development Charges Act*:

- \$252.7 million Benefit to Existing Development
  - \$ 32.8 million Subsidies, Other Contributions, and 10% Statutory Deduction
  - \$ 81.7 million Post Period Capacity.
- \$367.2 million

The costs involved include debt carrying charges or other financing costs to be incurred by the Region. The additional financing charge for roads is noted in Appendix C.

2.3 Table ES-3 sets out the existing and calculated charges by type of dwelling unit and non-residential GFA.

2.4 Niagara Region's 2012 development charge update results in little overall change proposed in the magnitude of the Region's DCs. This comes at a time when charges in Halton, Peel and York Regions are proposed to increase significantly, which leaves Niagara in a strong competitive position with respect to this particular cost factor.

Some shifts are proposed in the distribution of the charge among the various types of residential and non-residential development. This occurs as a result of calculating DCs based on a more accurate measure of the need for service (i.e. trip generation by residential use, rather than simply average cost per capita and employees per unit of non-residential floor space, rather than simply floor space). This approach is designed to produce the same total revenue for the Region, but means that some uses pay more per unit than at present, while others pay less, as part of devising a more equitable and defensible cost recovery system.

2.5 The primary policy changes proposed in this Background Study and By-law, in addition to those noted above, are as follows:

- (a) Modifications to the DC exemption areas in Schedule "D" of the By-law which are to continue to correspond with approved CIP areas in future;
- (b) The addition of a fourth residential use category in Schedule "B" of the By-law covering special care/special needs, group homes, lodging house, and student residences;
- (c) The creation of four non-residential development charge categories (Commercial, Institutional, Industrial and Hotel/Motel) instead of the existing two categories (Industrial and Non-industrial);
- (d) Development charge exemption for affordable housing projects undertaken by organizations that receive funding for same under an agreement with Niagara Regional Housing;

- (e) By-law provisions concerning the provision of local services, as well as development charge credits for work performed in lieu of development charge payment, including the handling of any development approved for a location outside of the existing service area;
- (f) Background Study policy references to security deposit requirements for draft plans of subdivision in respect of the sewer and water portion of the applicable Regional Development Charges as part of providing a six-month period for the clearance of all draft plan conditions;
- (g) Revision to the local service policy covering instances where developer front-end financing is required. This policy applies where developments require works that are either in advance of the timing assumed in the Region's capital budget process or are DC-eligible, but not specifically identified in the DC Background Study;
- (h) The creation of an additional development charge component for Emergency Medical Services;
- (i) The elimination of any development charge phase-in provisions;
- (j) Development charge reduction/exemption for non-profit long term care homes;
- (k) The establishment of indexing provisions for industrial development in addition to all other uses;
- (l) Expansions and revisions to a number of definitions to provide greater clarity with regard to the application of the charge.

2.6 In addition to the above changes, the Region intends to establish an instalment plan program for select not for profit organizations that identify a need to extend DC payments over a period of up to five years.

### **3. Council Approvals Sought**

At this stage in the process, the Background Study and proposed DC by-law are being provided for information purposes, as part of the consultation process. At such time as that process is complete and final DC recommendations are made to Council, approval will be sought for:

- the 2012 DC by-law;
- the Background Study, including the development forecast, the development-related capital program, the DC calculation and associated material, subject to any Addendum which may be produced prior to by-law adoption.

#### **4. Acknowledgements**

The consultant wishes to acknowledge, with appreciation, the guidance, decisions and considerable efforts of the Regional Development Charges Task Force, The February 17, 2012 Stakeholder Workshop participants and Regional staff in all operating departments who were involved in the production of this Background Study and, in particular, Kirk Weaver and Kristen Maddalena of Integrated Community Planning.

**TABLE ES-1  
REGION OF NIAGARA  
EXISTING VS. FULLY PHASED IN VS. PROPOSED DEVELOPMENT CHARGES  
PER SINGLE DETACHED UNIT**

Service	A Current Development Charge	B 2009 Calculated Charge Phased in to Sept. 1, 2012 (in 2012 \$) <sup>1</sup>	C Region-wide 2012 Calculation	D Difference C - B
General Government (Studies)	\$60	\$63	\$78	\$15
Police	130	137	\$252	115
EMS	-	-	\$74	74
Roads	4,092	4,320	\$5,540	1,220
Sub-total	\$4,282	\$4,520	\$5,944	\$1,424
Water (if available)	1,423	1,502	\$917	-585
Wastewater (if available)	3,385	3,573	\$3,178	-395
Water & Wastewater Sub-total	\$4,808	\$5,075	\$4,095	-\$980
Grand Total	\$9,090	\$9,595	\$10,039	\$444
%	94.7%	100.0%	104.6%	

<sup>1</sup> 1.0556 X current charge (i.e. \$9,500 ÷ \$9,000)

**EXISTING VS. FULLY PHASED IN VS. RECALCULATED DEVELOPMENT CHARGES PER NON-RESIDENTIAL SQ.FT. (EXCLUDING INDUSTRIAL)**

Service	A Current Development Charge	B 2009 Calculated Charge Fully Phased in (in 2012 \$) <sup>1</sup>	C 2012 DC Calculation Commercial	D Difference C - B	E 2012 DC Calculation Institutional	F Difference E - B	G 2012 DC Calculation Hotel/Motel	H Difference G - B
General Government (Studies)	\$0.07	\$0.08	\$0.10	\$0.02	\$0.05	-\$0.03	\$0.03	-\$0.05
Police	\$0.15	\$0.16	\$0.33	\$0.17	\$0.16	\$0.00	\$0.10	-\$0.06
EMS	-	-	\$0.03	\$0.03	\$0.01	\$0.01	\$0.01	\$0.01
Roads	\$4.67	\$5.07	\$6.02	\$0.95	\$2.83	-\$2.24	\$1.81	-\$3.26
Sub-total	\$4.89	\$5.31	\$6.48	\$1.17	\$3.05	-\$2.26	\$1.95	-\$3.36
Water (if available)	\$1.11	\$1.21	\$1.21	\$0.00	\$0.57	-\$0.64	\$0.37	-\$0.84
Wastewater (if available)	\$2.59	\$2.81	\$3.81	\$1.00	\$1.79	-\$1.02	\$1.15	-\$1.66
Water & Wastewater Sub-total	\$3.70	\$4.02	\$5.02	\$1.00	\$2.36	-\$1.66	\$1.52	-\$2.50
Grand Total	\$8.59	\$9.33	\$11.50	\$2.17	\$5.41	-\$3.92	\$3.47	-\$5.86
%	92.1%	100.0%	123.3%		58.0%		37.2%	

<sup>1</sup> 1.0859 X current charge (i.e. \$9.23 ÷ \$8.50)

**EXISTING VS. CALCULATED DEVELOPMENT CHARGES PER NON-RESIDENTIAL SQ.FT. (INDUSTRIAL)**

Service	A Current Development Charge	B 2009 Calculated Charge Fully Phased in (in 2012 \$) <sup>1</sup>	C 2012 DC Calculation Industrial	D Difference C - A
General Government (Studies)	\$0.02	n/a	\$0.05	\$0.03
Police	\$0.04	n/a	\$0.15	\$0.11
EMS	-	-	\$0.01	\$0.01
Roads	\$1.20	n/a	\$2.71	\$1.51
Sub-total	\$1.26	n/a	\$2.92	\$1.66
Water (if available)	\$0.28	n/a	\$0.54	\$0.26
Wastewater (if available)	\$0.66	n/a	\$1.70	\$1.04
Water & Wastewater Sub-total	\$0.94	n/a	\$2.24	\$1.30
Grand Total	\$2.20	n/a	\$5.16	\$2.96
%	100.0%		234.5%	

<sup>1</sup> The existing industrial charge is not being phased in, nor is it subject to annual indexing



**TABLE ES-2  
REGION OF NIAGARA**

**SUMMARY OF DC-RECOVERABLE CAPITAL COSTS - 10-YEAR SERVICES  
(2012-2021)**

	Millions \$ 2012					Max DC Recoverable <sup>1</sup>	
	Gross Cost	Benefit to Existing Development	Post Period 2031	Grants & Contributions	Statutory 10%	Residential Share	Non-residential Share
<b>Roads</b>	331.8	129.9	20.5	32.6	-	101.3	47.7
<b>Police</b>	18.3	0.4	10.2	-	-	5.3	2.5
<b>EMS</b>	6.0	0.2	3.8	-	0.2	1.6	0.2
<b>Studies</b>	3.0	0.2	-	-	0.0	1.9	0.9
Sub-total	359.1	130.7	34.5	32.6	0.2	110.1	51.3

<sup>1</sup> Less roads reserve funding of \$6.95 million

**SUMMARY OF DC-RECOVERABLE CAPITAL COSTS - WATER AND WASTEWATER  
(2012-2031)**

	Millions \$ 2012				Max DC Recoverable <sup>1</sup>	
	Gross Cost	Benefit to Existing Development	Post Period 2031	Grants & Contributions	Residential Share	Non-residential Share
<b>Water</b>						
Masterplan	57.9	25.2	0.9	-	22.5	9.3
Credits + Previous Oversizing	18.7	-	-	-	13.4	5.3
Balance Region-wide	1.2	0.1	-	-	0.8	0.3
Water Sub-total	77.8	25.3	0.9		36.7	14.9
<b>Wastewater</b>						
Masterplan	180.2	47.1	45.3	-	64.6	23.2
Credits + Previous Oversizing	34.5	-	1.0	-	24.3	9.2
Balance Region-wide	71.4	49.6	-	-	15.4	6.4
Wastewater Sub-total	286.1	96.7	46.3		104.3	38.8
Water/Wastewater Total	363.9	122.0	47.2	-	141.0	53.7

<sup>1</sup> Less water reserve funding of \$8.03 million, plus wastewater reserve deficit of \$3.83 million

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**TABLE ES-3**  
**REGION OF NIAGARA**  
**2012 REGION-WIDE DEVELOPMENT CHARGE CALCULATION**  
**FOR FULLY SERVICED DEVELOPMENT**

Development Type	Existing Charge	Calculated Charge
<b><i>Residential (Per Dwelling Unit)</i></b>		
Single Detached	\$ 9,090	\$ 10,039
Other Multiple	\$ 6,368	\$ 6,099
Apartment/(Lodging Unit)	\$ 5,356	\$ 4,445
Dwelling Room	n/a	\$ 2,684
<b><i>Non-Residential Development per sq.ft. (gross floor area)</i></b>		
Commercial (Office/Retail)	\$ 8.59	\$11.50
Industrial	\$ 2.20	\$5.16
Institutional	\$ 8.59	\$5.41
Hotel/Motel	\$ 8.59	\$3.47

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# 1. INTRODUCTION

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# 1. INTRODUCTION

## 1.1 Development Charges Act (DCA) Background Study Requirements

The DCA requires that a development charge background study must be completed by Regional Council before passing a development charge by-law. The mandatory inclusions in such a study are set out in s.10 of the DCA and in s.8 of O.Reg. 82/98, and are as follows:

- a) “the estimates under paragraph 1 of subsection 5(1) of the anticipated amount, type and location of development; (addressed in Chapter 3 and Appendix A of this report)
- b) the calculations under paragraphs 2 to 8 of subsection 5(1) for each service to which the development charge by-law would relate; (addressed in Appendix B of this report)
- c) an examination, for each service to which the development charge by-law would relate, of the long term capital and operating costs for capital infrastructure required for the service; (addressed in Appendix E of this report)
- d) for each service, the capital costs split between those benefiting new development vs. existing development for the term of the proposed by-law vs. beyond that period, as well as the value of credits involved. (addressed in Appendix B of this report)

## 1.2 Development Charges Act Requirements

### 1.2.1 *Introduction*

1. Development charges are payments made by new development in Niagara Region (and other municipalities) normally as part of the building permit approval and/or the subdivision/severance agreement process. These payments are made by all such new development, unless specifically exempt by the *Development Charges Act* or the Region’s DC by-law.
2. These payments are made for the growth-related capital requirements of providing services to new development anticipated over the 2012-2022 or 2031 period depending on the service involved. All Region-funded services are potentially eligible for DC funding, except those specifically excluded via the *Development Charges Act*.
3. “Capital” is defined in the DCA to include the municipal cost to acquire, lease, construct or improve land or facilities, including rolling stock (7+ year life), furniture and equipment (other than computer equipment), library materials as well as related study and financing costs.
4. The Region of Niagara has imposed development charges under the DCA since 1991 and prior to that as lot levies pursuant to the *Planning Act*. The Region’s current DC by-law (62-2009) came into effect on September 1, 2009, with a maximum life of 5 years.

**FIGURE 1-1**  
**SCHEDULE OF KEY DEVELOPMENT CHARGE PROCESS DATES**  
**FOR THE REGION OF NIAGARA**

	<b>Timing</b>
1. Meeting Notice ad placed in newspaper(s)	By May 16
2. Proposed By-law and Background Study Available to public	May 22
3. Statutory Public Meeting	June 6
4. Integrated Community Planning Committee receives Background Study and proposed by-law	June 27 – July 3
5. Council considers adoption of background study and passage of by-law	T.B.D.
6. Newspaper notice given of by-law passage	By 20 days after passage
7. Last day for by-law appeal	40 days after passage
8. Region makes available pamphlet (where by-law not appealed)	by 60 days after inforce date

5. This by-law provides for development charge payments which vary with the amount and type of new development, as detailed in Chapter 3.
6. These charges (with the exception of industrial) are currently being phased in over a four year period and indexed for inflation as of September each year, based on the prescribed Statcan index.
7. The monies collected under a DC by-law are maintained in separate reserve funds, one for each of the services involved. Most of the collections are for Roads, Water and Wastewater. Small development charge components are also collected for Emergency Medical Services, Police, and Growth Studies.
8. Each development charge paid is allocated, as a statutory requirement, to those reserve funds, in accordance with the development charge for each service. It is also required that the monies only be expended for the purposes for which the DC was calculated.
9. In calculating the charge, it is necessary to:
  - establish a new development forecast for population and housing, and for employees and floor area;
  - determine and cost the additional services such new development will require and ensure that the program has Council approval;
  - make the cost deductions required by the Act with respect to service level, benefit to existing development, oversized capacity, grants and contributions, the statutory 10%, etc.;
  - calculate development charges by type of use and document this in a Background Study and by-law;
  - take the study and proposed by-law through a public process, seeking Council approval thereof.
10. Development charges represent a significant capital funding source for many services and serve to provide a portion of funding for designated projects. The current by-law updating process is designed to establish full DC coverage for Regional services eligible under the DCA.

1.2.2 The following table sets out the method that must be used to determine development charges and further elaborates on the summary provided above. The underlining has been added to the quotations for clarification/emphasis and is not part of the statute or regulation quoted on the left side of the page. The DC calculation process is also summarized schematically in Figure 1-2 which follows.

## SUMMARY OF STATUTORY DEVELOPMENT CHARGE CALCULATION REQUIREMENTS

s.s.5(1) of the <i>Development Charges Act</i> (and associated Regulations)  Para- graph	Commentary
1. "The anticipated amount, type and location of development, <u>for which development charges can be imposed</u> , must be estimated."	Virtually all municipalities forecast <u>all</u> development (including development charge-ineligible) in the first instance. That development is used as the denominator in the development charge calculation with the <u>full</u> eligible cost of servicing all such development used as the numerator. That way, growth-related servicing costs are equitably spread over <u>all</u> benefiting development, the municipality does not recover development charges from exempt development and this would ensure that the requirements of s.s.5(6)3 have been met. That is, capital costs have not been offloaded from one type of development to another.
2. "The increase in the need for service <u>attributable to the anticipated development</u> must be estimated for each service to which the Development Charge By-law would relate."	<p>This step involves estimating the additional requirement for each individual service that is needed by the development increment in paragraph 1.</p> <p>The anticipated development in paragraph 1 must correspond to the service attribution in paragraph 2.</p> <p>This involves removing statutorily ineligible development (i.e. municipalities, schools, specified industrial expansions, specified residential intensification and other statutorily exempt public uses) and the servicing cost thereof. However, this would be very difficult to accomplish, particularly because numerous unspecified geographic locations are involved for such development, which makes the servicing cost difficult to identify. As a result, this approach has not been used. Instead, the total cost/total development approach outlined above is used and has the same effect on the development charge quantum.</p> <p>Post period capacity is a term and a concept which is not specifically referenced in the DCA. It refers to the cost of oversized development-related servicing</p>

s.s.5(1) of the <i>Development Charges Act</i> (and associated Regulations)	Commentary
	capacity which is not required by development anticipated over the Region's planning period, which will clearly benefit development in a <b>subsequent</b> planning period and has been specifically oversized for that purpose and should therefore be (partially) funded by such subsequent development.
<p>3. "The estimate under paragraph 2 may include an increase in need only if the <u>council</u> of the municipality <u>has indicated that it intends to ensure that such an increase in need will be met.</u>"<sup>1</sup></p> <p>O.Reg. 82/98 s.3. "For the purposes of paragraph 3 of subsection 5(1) of the Act, the council of a municipality has indicated that it intends to ensure that an increase in the need for service will be met <u>if the increase in service forms part of an official plan, capital forecast or similar expression of the intention of the council</u> and the plan, forecast or similar expression of the intention of the council has been approved by the council."</p>	The capital forecast underpinning the development charge calculation must be formally approved by Council in one of the ways indicated in the Regulation.
<p>4. "The estimate under paragraph 2 must not include an increase that would result in <u>the level of service exceeding the average level of that service provided in the municipality</u> over the 10-year period immediately preceding the preparation of the background study required under section 10.<sup>1</sup> The estimate also must not include an increase in the need for service that relates to a time after the 10-year period immediately following the preparation of the background study unless the service is set out in subsection (5)."</p> <p>O.Reg. 82/98 s.4(1) "For the purposes of paragraph 4 of subsection 5(1) of the Act, both the quantity and quality of a service shall be taken into</p>	<p>This provision creates a "service level cap" equal to the cost of providing service to the "anticipated development," consistent with the 10-year historical average level of service.</p> <p>In accordance with s.s.5(1)4, services such as emergency medical services are restricted to a maximum 10-year planning horizon.</p> <p>s.s.5(5) lists water, wastewater, storm water, road, police and fire services. These are not subject to a 10 year planning period cap.</p> <p>Services other than those excluded in s.s.2(4), may be defined by the municipality and, in some cases, grouped into "service categories" for purposes of reserve funds and credits (as per s.7).</p> <p>Two "level of service" considerations must be taken into account in satisfying compliance with the 10-year historical average level of service cap. These</p>

<sup>1</sup> The *Development Charges Act* notes that the provisions may be further governed by regulations.



s.s.5(1) of the <i>Development Charges Act</i> (and associated Regulations)	Commentary
<p>account in determining the level of service and the average level of service.”</p> <p>s.s.4(1.1) provides that in determining the quality of a service, the replacement cost, exclusive of any allowance for depreciation, shall be the amount used.</p> <p>s.s.4(2) addresses the service level in an excluded geographic area where a service is not provided.</p> <p>s.s.4(4) limits the service level in part of a municipality to the level otherwise applicable to the full municipality.</p> <p>s.s.4(3) modifies the service level cap where a higher level is required by another Act.</p> <p>O.Reg. 206/04 amended s.4 of O.Reg. 82/98 by adding the following subsection:</p> <p>“(1.1) In determining the <u>quality</u> of a service under subsection (1), the <u>replacement cost</u> of municipal capital works, exclusive of any allowance for depreciation, shall be the amount used. (underlining added)</p>	<p>considerations involve “quantity” (e.g. floor space/capita) and “quality” (e.g. cost per s.m. of floor space).</p> <p>The Reg. clarifies that the quality level of service measure is to be based on the undepreciated replacement cost of municipal capital works.</p>
<p>5. “The increase in the need for service attributable to the anticipated development must be <u>reduced</u> by the part of that increase that can be met <u>using the municipality’s excess capacity, other than</u> excess capacity that the council of the municipality has indicated an intention would be paid for by new development.”<sup>2</sup></p> <p>O.Reg. 82/98 s.5. “For the purposes of paragraph 5 of subsection 5(1) of the Act, excess capacity is uncommitted excess capacity unless, either before or at the time the excess capacity was created, the <u>council</u> of the municipality</p>	<p>“Uncommitted excess capacity” is available capacity that obviates (part of) the need for new projects. It is different than “Post Period Capacity,” which is <u>not</u> needed by development during the planning period and is provided for the use of subsequent, i.e. post-2031 development, which can be required to fund it through future development charges.</p> <p>The Reg. explains the circumstances under which (part of) the cost of “committed excess capacity,” (i.e. infrastructure in the ground from prior Development Charge By-laws or otherwise), can be recovered via</p>

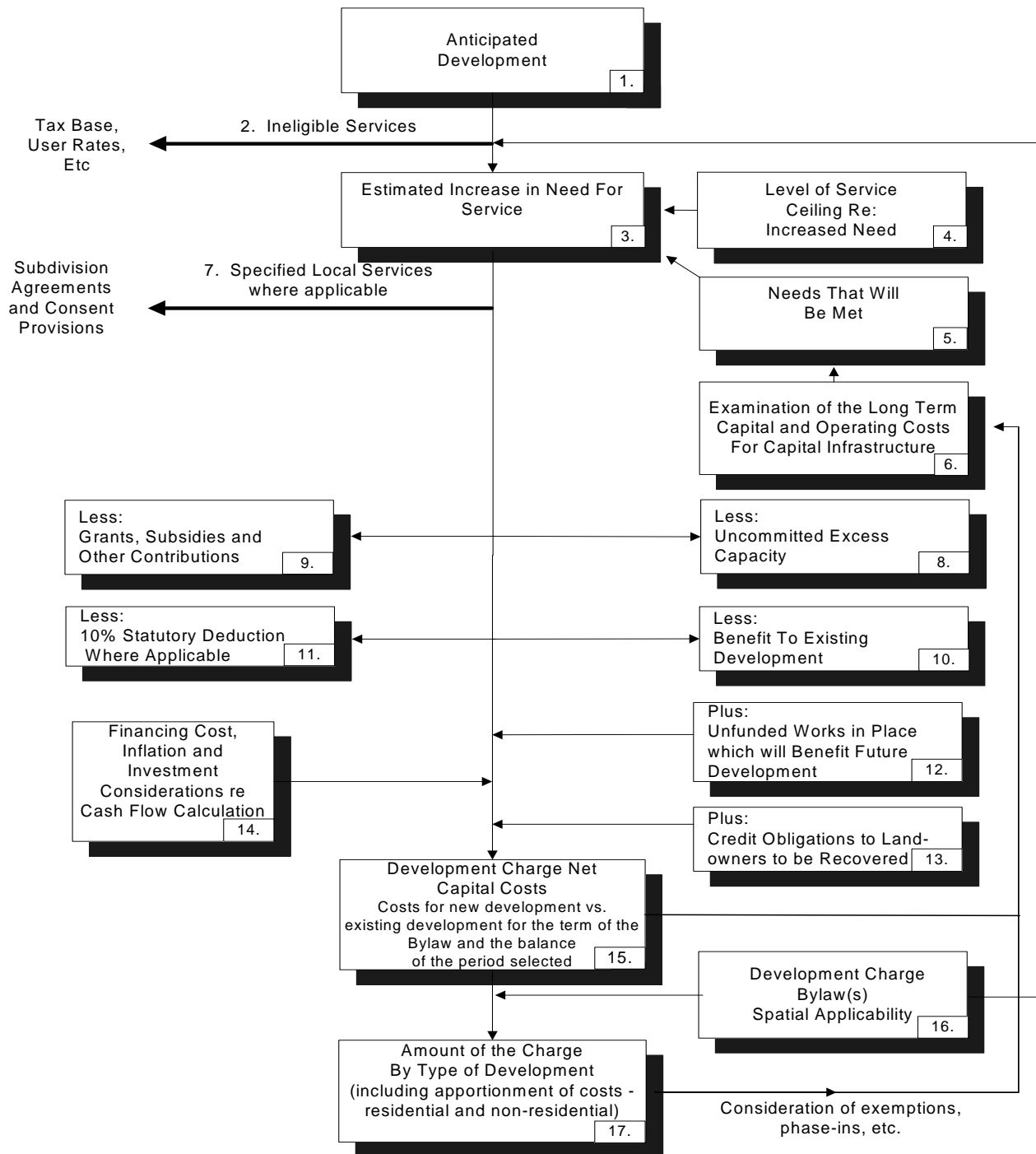
<sup>2</sup> The *Development Charges Act* notes that the provisions may be further governed by regulations.

s.s.5(1) of the <i>Development Charges Act</i> (and associated Regulations)	Commentary
<p><u>expressed a clear intention that the excess capacity would be paid for by development charges or other similar charges.</u>"</p>	<p>future development charges.</p>
<p>6. "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 <u>benefit existing development.</u>"<sup>1</sup></p> <p>Note: no regulatory clarification has been provided.</p>	<p>Existing development benefits from:</p> <ul style="list-style-type: none"> <li>• the repair or unexpanded replacement of existing assets;</li> <li>• an increase in average service level or existing operational efficiency;</li> <li>• the elimination of a chronic servicing problem not created by growth;</li> <li>• providing services where none previously existed (e.g. water service).</li> </ul>
<p>7. "The <u>capital costs</u> necessary to provide the increased services must be estimated. The capital costs <u>must be reduced by the reductions set out in subsection (2).</u> What is included as a capital cost is set out in subsection (3)."<sup>1</sup></p> <p>O.Reg. 82/98 s. 6 indicates that: Unless the person making the grant or contribution was specific as to how it is to be applied, the contribution is to be shared between growth and non-growth project components in proportion to the way in which the costs were allocated in s.s.5(1)6.</p> <p>s.s.5(3) defines capital costs to include:</p> <ul style="list-style-type: none"> <li>• the acquisition or lease of (an interest in) land;</li> <li>• construction, improvement, acquisition or lease (capital component only) costs for buildings/structures/facilities;</li> <li>• 7+ year useful life rolling stock;</li> <li>• Furniture, furnishings and equipment, other than computer equipment;</li> <li>• library materials;</li> <li>• studies re above;</li> <li>• Development Charge Background Studies; and</li> <li>• interest on related borrowings.</li> </ul>	<p>s.s.5(2) refers to capital grants, subsidies and other contributions made to a municipality <u>or that Council anticipates</u> will be made in <u>respect of the capital costs.</u></p> <p>These costs exclude "local services" related to a plan of subdivision or a consent approval, to be installed or paid for by the owner (s.s.2(5)). They are not directly applicable to Niagara Region as a result of the allocation of servicing responsibility between the local municipalities and Niagara Region.</p> <p>Includes debt payments related to previously constructed growth-related works.</p>

s.s.5(1) of the <i>Development Charges Act</i> (and associated Regulations)	Commentary
<p>8. “The capital cost must be reduced by 10 per cent. This paragraph does not apply to services set out in subsection (5).”</p>	<p>For example, the 10% reduction <u>does</u> apply to Emergency Medical Services.</p> <p>The purpose of this reduction is undefined, beyond the Province’s expressed wish in 1997 to moderate development charge quantum. The exclusion of various services under s.s.2(4) serves a similar purpose. (i.e. Cultural/entertainment facilities, including museums, theatres and art galleries; tourism facilities, including convention centres; parkland acquisition; public hospitals, waste management services; and general administration headquarters for municipalities/local boards).</p>
<p>9. “Rules <u>must be</u> 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).”</p> <p>s.s.5(6):</p> <p>“The rules developed under paragraph 9 of subsection (1) to determine if a development charge is payable in any particular case and to determine <u>the amount of the charge are subject to the following restrictions:</u></p> <ol style="list-style-type: none"> <li>1. The rules must be such that the total of the development charges that would be imposed upon the anticipated development is less than or equal to the capital costs determined under paragraphs 2 to 8 of subsection (1) <u>for all the services to which the <i>Development Charge By-law</i> relates.</u></li> <li>2. If the rules expressly identify a type of development <u>they must not provide for the type of development to pay development charges that exceed the capital costs, determined under paragraphs 2 to 8 of subsection (1), that arise from the increase in the need for services attributable to the type of development.</u></li> </ol>	<p>These are mandatory Development Charge By-law inclusions as to how the charge is to be applied to development types and circumstances.</p> <p>These are three over-riding tests to be met by the Development Charge By-law.</p> <p>A municipality cannot collect more than the calculated cost for each service (if the amount of development and resultant revenue outpaces the forecast, then the extra revenue must be addressed via a reserve fund deduction in the development charge calculation in the next round or other appropriate means).</p> <p>A municipality cannot offload the cost of servicing one type of development onto another type (e.g. Industrial servicing costs cannot be transferred to residential development and single detached unit servicing costs cannot be transferred to apartments).</p>

s.s.5(1) of the <i>Development Charges Act</i> (and associated Regulations)	Commentary
<p>However, it is <u>not necessary that the amount of the development charge</u> for a particular development <u>be limited to the increase in capital costs, if any, that are attributable to that particular development.</u></p> <p>3. “If the Development Charge By-law will exempt a type of development, phase in a development charge, or otherwise provide for a type of development to have a lower development charge than is allowed, <u>the rules for determining development charges may not provide for any resulting shortfall to be made up through higher development charges for other development.</u>”</p>	<p>It is not necessary that the <u>average</u> municipal-wide per unit servicing costs funded by the development charge reflect the needs of any <u>particular</u> development project.</p> <p>Provides further clarification on the inability of the By-law to offload cost recovery from one type of development to another, in this case from exempt or discounted development to non-exempt or non-discounted development.</p>
<p>10. “The rules <u>may provide</u> for full or partial exemptions for types of development and for the phasing in of development charges. The rules <u>may also provide</u> for the indexing of development charges based on the prescribed index.”</p>	<p>These are optional by-law inclusions such as authority to set rules on discretionary exemptions, phasing in of development charges and indexing of development charges.</p>

FIGURE 1-2  
THE PROCESS OF CALCULATING A DEVELOPMENT CHARGE UNDER THE *DEVELOPMENT CHARGES ACT, 1997*



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## **2. CURRENT REGION OF NIAGARA POLICY**

## 2. CURRENT REGION OF NIAGARA POLICY

### 2.1 Schedule of Charges

On July 30, 2009, the Region of Niagara passed By-law 62-2009 under the *Development Charges Act, 1997*. The by-law came into effect on September 1, 2009. It imposes development charges on residential and non-residential uses. The by-law provides for phasing-in of the rates over a four-year period ending September 1, 2013. The rates in effect for the first and the final period for urban development are as follows.

Use	Effective September 1, 2009	Effective September 1, 2013 <sup>1</sup>
Residential charges		
• single detached	\$8,000/unit	\$9,746/unit
• apartment/lodging unit	\$5,500/unit	\$6,778/unit
• other multiples	\$4,600/unit	\$5,648/unit
Non-residential charges		
• non-industrial gross floor area	\$7.50/sq.ft.	\$9.23/sq.ft.
• industrial gross floor area	\$2.20/sq.ft.	\$2.20/sq.ft.

### 2.2 Services Covered

The following are the services covered under By-law 62-2009:

- General Government (growth-related studies);
- Police Services (facilities);
- Roads (roads and road-related structures);
- Water (supply, storage, treatment and distribution);
- Wastewater (collection and treatment). (s5)

### 2.3 Timing of DC Calculation and Payment

Development charges are calculated and payable upon issuance of a building permit with respect to development. (s.10)

### 2.4 Indexing

By-law 62-2009 provides for the annual indexing of the charges, except for industrial, on September 1st of each year (s.21-24), based on the change in the Construction Price Statistics Index for the most recent twelve month period. However, s.23 of the by-law allows Council to waive indexing in any particular year. Table 2-1 provides the rates currently in effect (which

<sup>1</sup> Excludes annual indexing.

include indexing from 2009, where applicable), as well as a breakdown of the charges by service.

**TABLE 2-1  
REGION OF NIAGARA  
DEVELOPMENT CHARGES (AS OF SEPTEMBER 1, 2011)**

Category of Service	Residential Charge per Dwelling Unit			Non-Residential (excluding Industrial)	Non- Residential (Industrial)
	Single Detached	Other Multiple	Apartment/ Lodging Unit	Per square foot of gross floor area	Per square foot of gross floor area
General Government	\$60	\$42	\$35	\$0.07	\$0.02
Police Services	\$130	\$91	\$77	\$0.15	\$0.04
Roads	\$4,092	\$2,867	\$2,411	\$4.67	\$1.20
<b>Sub Total</b>	<b>\$4,282</b>	<b>\$3,000</b>	<b>\$2,523</b>	<b>\$4.89</b>	<b>\$1.26</b>
Wastewater (if available)	\$3,385	\$2,371	\$1,994	\$2.59	\$0.66
Water (if available)	\$1,423	\$997	\$839	\$1.11	\$0.28
<b>Total</b>	<b>\$9,090</b>	<b>\$6,368</b>	<b>\$5,356</b>	<b>\$8.59</b>	<b>\$2.20</b>

## **2.5 Redevelopment Credit**

A redevelopment allowance is applied against development charges payable for land where an existing building was demolished or destroyed within five years prior to the application of a building permit for a new development. This allowance is in the amount that would be payable as development charges in respect of the demolished or destroyed premise.

Further, a similar refund will be issued if an existing premises is demolished up to five years after the payment of a development charge, if the owner provides written notification at the time of DC payment of his intention to demolish an existing premise. (s.19)

In the case of the conversion of a building from one use to another, charges will be reduced by the amount that would have been applicable to the original use. (s.20)

## **2.6 Non-Statutory Exemptions**

The following discretionary exemptions are provided under By-law 62-2009:

- granny flat (s.s.12(a));
- parking structure (s.s.12(b));
- agriculture uses as defined (s.s.12(c));
- building owned by a church or religious organization and used exclusively as a place of worship (s.s.12(d));



- 
- municipal housing project facilities under s.110 of the *Municipal Act* and the Region's Municipal Housing Facility by-law (s.s.12(e));
  - land and buildings associated with the Healthcare Complex in St. Catharines and the West Lincoln Memorial Hospital (s.13 & s.14).

In addition, a 50% reduction in the development charge otherwise payable is provided for development, other than industrial and agricultural, within thirteen designated central urban areas or on brownfield sites. A further 50% reduction will be provided if Council determines that the development includes at least three of the following features (as defined in more detail):

- intensification of an existing use;
- creation of mixed uses;
- contribution towards the creation of a walkable neighbourhood character;
- creation of a range of housing opportunities and choices; and
- reduced setbacks from roadways. (s.15)

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### **3. ANTICIPATED DEVELOPMENT IN NIAGARA REGION**

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### **3. ANTICIPATED DEVELOPMENT IN NIAGARA REGION**

#### **3.1 Basis of Population, Household and Non-Residential Gross Floor Area Forecast**

Appendix A sets out the forecast of anticipated development which was used as the basis for the capital requirements in Appendix B and the development charge calculations in Appendix C. These include Region-wide forecasts and those relating to water and wastewater plant servicing areas for population (net and gross), households by type, employment and gross floor area of non-residential development by type. Accordingly, the ten year and 2012-2031 Region-wide forecasts are summarized in Table 3-1.

The requirement of the Act is for a development forecast, which refers to residential, commercial, industrial and institutional development. Such development generates increased service needs, via its occupancy and use, which is measured in terms of households, population, employment and visitors (tourists, customers, patrons and suppliers). This chapter therefore addresses both the anticipated increase in development and the users thereof. It covers all forms of development, whether or not they are included in the schedule of development charges, in order to avoid transferring the servicing cost responsibility of exempt development to non-exempt development.

**TABLE 3-1  
SUMMARY OF NIAGARA'S REGION-WIDE GROWTH**

Increments in:	Mid-2012 to Mid-2022	Mid-2012 to Mid-2031 <sup>2</sup>
1. <u>Population</u>		
• Gross	63,544	110,417
• Net <sup>1</sup>	44,420	74,860
2. <u>Households</u>		
• Single and semi-detached	15,563	25,361
• Apartments	2,597	5,388
• Other multiples	5,266	10,807
Total	23,426	41,566
3. <u>Employment</u>		
• Primary	746	1,231
• Work at Home	2,128	3,798
• Industrial	4,044	5,780
• Hotel	1,055	1,645
• Office	2,192	3,420
• Retail	9,383	14,791
• Institutional	1,030	2,208
Total	20,578	32,872
4. <u>Non-Residential GFA</u>		
• Industrial	3,841,000	5,491,000
• Hotel	1,477,000	2,303,000
• Office	712,400	1,111,500
• Retail	4,222,350	6,655,950
• Institutional	927,000	1,987,200
Total	11,180,550	17,548,650

<sup>1</sup>Gross population increase less decline in occupancy of existing housing units.

<sup>2</sup>The forecasts for the water and wastewater servicing areas are somewhat lower.

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## **4. DEVELOPMENT CHARGE CALCULATION ASSUMPTIONS**

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## **4. DEVELOPMENT CHARGE CALCULATION ASSUMPTIONS**

### **4.1 Introduction**

This chapter addresses the requirements of s.s.5(1) of the DCA, 1997 and related matters with respect to the establishment of the estimated increased need for service attributable to the anticipated development, which underpins the development charge calculation. These requirements were detailed in section 1.2 above.

### **4.2 Services Potentially Involved**

Table 4-1 lists the full range of municipal service categories that are eligible for inclusion in the DC calculation.

A number of these services are referenced in s.s.2(4) of the DCA, 1997 as being ineligible for inclusion in development charges. These are shown as “ineligible” on Table 4-1. In addition, two ineligible costs defined in s.s.5(3) of the DCA are “computer equipment” and “rolling stock with an estimated useful life of (less than) seven years...” In addition, local water, sanitary sewer, stormwater management and road works are recovered separately under subdivision agreements and related means (as are other local services). Services which are potentially eligible for inclusion in the Regional development charge are indicated with a “√.”

### **4.3 Local Service Policy**

The Region has established general guidelines with respect to engineered services in terms of which development-related requirements are incorporated in the development charge calculation versus being a separate and independent requirement of development agreements, over and above the payment of the development charge. Guidelines as to the Region’s local servicing and front-ending requirements are set out in Appendix D.

### **4.4 Applicable Credits**

Section 8 para. 5 of O.Reg. 82/98 indicates that a development charge background study must set out, “The estimated value of credits that are being carried forward relating to the service.” s.s.17 para. 4 of the same Regulation indicates that, “...The value of the credit cannot be recovered from future development charges,” if the credit pertains to an ineligible service. This indicates that a credit for eligible services can be recovered from future development charges. A credit is, in effect, a Municipal payment liability linked to the prior provision of infrastructure by a landowner. Credits need to be included in the DC calculation, in order to ensure that the necessary development charge “funding room” has been provided.

TABLE 4-1  
DEVELOPMENT CHARGE-RELATED CATEGORIES OF MUNICIPAL SERVICES  
AND RESPONSIBILITIES

(√ Service Components Considered)

CATEGORIES OF MUNICIPAL SERVICES	ELIGIBILITY FOR INCLUSION IN THE DC CALCULATION	SERVICE COMPONENTS	MAXIMUM POTENTIAL DC RECOVERY %
1. Services Related to a Highway	√/Area Municipal Area Municipal/Dev. Agreements Dev. Agreements √/Area Municipal Area Municipal/Dev. Agreements √/Area Municipal	1.1 Arterial roads	100
		1.2 Collector roads	100
		1.3 Local roads	0
		1.4 Traffic signals	100
		1.5 Sidewalks and streetlights	100
		1.6 Interchanges and Grade Separations	100
2. Other Transportation Services	Area Municipal Area Municipal Area Municipal Area Municipal √/Area Municipal √/Area Municipal n/a n/a	2.1 Transit vehicles	90
		2.2 Other transit infrastructure	90
		2.3 Municipal parking spaces - indoor	90
		2.4 Municipal parking spaces - outdoor	90
		2.5 Works Yards	100
		2.6 Rolling stock <sup>5</sup>	100
		2.7 Ferries	90
		2.8 Airport facilities	90
3. Storm Water Drainage and Control Services	Area Municipal/ Municipal Act Dev. Agreements Dev. Agreements	3.1 Main channels and drainage trunks	100
		3.2 Channel connections	0
		3.3 Retention/detention ponds	0
4. Fire Protection Services	Area Municipal Area Municipal Area Municipal	4.1 Fire stations	100
		4.2 Fire pumpers, aerials and rescue vehicles	100
		4.3 Small equipment and gear	100
5. Outdoor Recreation Services (i.e. Parks and Open Space)	Ineligible Area Municipal Area Municipal Area Municipal Area Municipal	5.1 Acquisition of land for parks, woodlots and ESAs	0
		5.2 Development of local parks	90
		5.3 Development of district parks	90
		5.4 Development of Municipal-wide parks	90
		5.5 Development of special purpose parks	90
		5.6 Parks rolling stock <sup>1</sup> and yards	90
6. Indoor Recreation Services	Area Municipal Area Municipal	6.1 Arenas, indoor pools, fitness facilities, community centres, etc. (including land)	90
		6.2 Recreation vehicles and equipment <sup>1</sup>	90
7. Library Services	Area Municipal Area Municipal	7.1 Public library space (incl. furniture and equipment)	90
		7.2 Library materials	90
8. Electrical Power Services	Ineligible Ineligible Ineligible	8.1 Electrical substations	0
		8.2 Electrical distribution system	0
		8.3 Electrical system rolling stock <sup>1</sup>	0

<sup>5</sup> with 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 DC CALCULATION	SERVICE COMPONENTS	MAXIMUM POTENTIAL DC 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	√	10.1 Treatment plants	100
	√	10.2 Sewage trunks	100
	Area Municipal/Dev. Agreements	10.3 Local systems	100
	√/Area Municipal	10.4 Vehicles and equipment	100
11. Water Supply Services	√	11.1 Treatment plants	100
	√	11.2 Distribution systems	100
	Area Municipal/Dev. Agreements	11.3 Local systems	100
12. Waste Management Services	Ineligible	12.1 Collection, transfer vehicles and equipment	0
	Ineligible	12.2 Landfills and other disposal facilities	0
	Ineligible	12.3 Other waste diversion facilities	0
13. Police Services	√	13.1 Police detachments	100
	√	13.2 Police rolling stock <sup>1</sup>	100
	√	13.3 Small equipment and gear	100
	√	13.4 Communications systems	100
14. Homes for the Aged	√	14.1 Homes for the aged space	90
15. Day Care	√	15.1 Day care space (leased or owned)	90
16. Health	√	16.1 Health department operating space	90
17. Social Services	√	17.1 Social service operating space	90
	√	17.2 Social housing	90
18. Ambulance (EMS)	√	18.1 Ambulance station space	90
	√	18.2 Vehicles <sup>1</sup>	100
19. Hospital Provision	Ineligible	19.1 Hospital capital contributions	0
20. Provision of Headquarters for the General Administration of Municipalities and Local Boards	Ineligible	20.1 Office space (all services)	0
	Ineligible	20.2 Office furniture	0
	Ineligible	20.3 Computer equipment	0
21. Other Services	√/Area Municipal	21.1 Studies in connection with acquiring buildings, rolling stock, materials and equipment, and improving land <sup>2</sup> and facilities, including the DC background study cost	100
	√/Area Municipal	21.2 Interest on money borrowed to pay for growth-related capital	100

<sup>1</sup> where a 7+ year life is involved

<sup>2</sup> same percentage as service component to which it pertains



The Region of Niagara has made agreements with respect to the following credits, which are incorporated in the calculation of the charge, for each of the services involved:

Credit Holder	Municipality	Service	Amount Outstanding
Daimler Group	Welland	Wastewater	\$172,454
Garrison Village	Fort Erie	Wastewater	\$60,705
Driver Trail Estates	Fort Erie	Water	\$55,754

In addition, the Region has undertaken a number of water and wastewater projects that were identified in prior DC Background studies. These studies determined the share of each project that was applicable to growth beyond the planning period of the particular studies (i.e. beyond mid-2018 in the case of the 2009 DC Background Study as the post period capacity share). The DC calculation in Appendix B includes recovery of the oversized portion of previous projects, applicable to growth from 2012 and beyond.

#### **4.5 Area-specific Charges**

Development charge by-laws can be imposed on a uniform Region-wide basis or on an area-specific basis or as a combination of these two approaches. The Region's existing development charge policy is uniform Region-wide and this update provides the basis for either approach.

The benefit of the area-specific approach involves the synchronization of development charge policy with the (water and wastewater) infrastructure financing requirements of individual servicing areas. This approach would provide incentives via low development charges to the development of those areas which can be most economically serviced. At the same time, it would provide a sound underpinning to any necessary landowner front-end financing arrangements required by areas to be newly serviced, whether at above or below average cost.

The advantages of uniform Region-wide charges are that they:

- a) avoid potential need for transition arrangements and provide an immediate benefit (stable charges) to all development;
- b) avoid the financing inflexibility of having 19 separate reserve funds, rather than one or two;
- c) involve less administrative effort re collections and DC updating, and in the circumstance where the charges are generally not significantly different;
- d) avoid the difficulties involved in making rate of development and debt financing estimates for 19 sub-areas;
- e) reduce the financial challenge associated with the NOTL wastewater project.

Consideration of area-specific DCs is discussed further in Appendix C.

#### **4.6 Use Specific Charges**

The Region's current DC by-law provides for differentiation of the residential charges by unit type (singles, apartments and multiple units) and by non-residential use (industrial and all

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other). The industrial charge was arrived at by discounting the average charge calculated for all non-residential development. Appendix C provides a discussion of the approach to calculating use specific charges for the updated DC by-law.

#### **4.7 Council's Approval of the Capital Program**

In order for an increase in need for service to be included in the development charge calculation, Regional 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) such as the approval of the capital plan that forms part of this Background Study. The capital program contained herein reflects the Region's Water and Wastewater Master Servicing Plan.

#### **4.8 The Amount of the Development Charge Payable in Any Particular Case**

4.8.1 The rules for determining if development charges are payable in any particular case and for determining the amount of the development charges involved, are set out in the proposed by-law in Appendix F.

4.8.2 The quantum of the development charge which is payable, is as calculated in Appendices B and C and summarized in the Executive Summary and Schedule B of the proposed by-law.

4.8.3 The rules for determining if development charges are payable in any particular case are addressed in the by-law and Background Study and deal with matters such as: multiple charges, the connection between servicing needs and development, the list of services for which charges are being imposed, types of development approval triggering the need for the imposition of development charges, the requirements for the installation of local services in addition to payment of the development charge, the method used in calculating development charges for individual developments, the quantum of the charge, the timing of calculation and payment, the alternative means of payment, exemptions, phasing-in of charges, indexing and charges imposed on redevelopment.

#### **4.9 Timing of Collection**

4.9.1 The Region currently calculates and collects development charges at the time of building permit issuance. It is proposed that this practice be continued.

4.9.2 Servicing allocation for all draft plans of subdivision for residential development shall require a security deposit in the form of a letter of credit equal to the sewer and water portion of the applicable Regional development charges within 6 months of the effective date of draft plan approval or prior to granting an extension of approval for draft plans approved prior to the date of this by-law; unless the owner has filed applications for servicing approvals with the Ministry of the Environment.

4.9.3 An agreement shall be entered into with Niagara Region for the term and conditions associated with the security deposit which shall be released at the time of final approval of the subdivision when all draft plan conditions applicable to Niagara Region have been cleared. If this agreement is not finalized within 6 months of the effective date of draft plan approval, draft plan approval shall lapse unless Niagara Region agrees to an extension.

4.9.4 Section 27 of the Act permits a municipality to enter into an agreement with a person who is required to pay a development charge providing for all or any part of a development charge to be paid before or after it would otherwise be payable. The Region is giving consideration to the establishment of a development charge “instalment plan” for select not-for-profit organizations that identify the need to extend payment over a period of up to five years.

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**APPENDIX A**  
**ANTICIPATED DEVELOPMENT**  
**IN NIAGARA 2012-2031**

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## **APPENDIX A - ANTICIPATED DEVELOPMENT IN NIAGARA 2012-2031**

### **1. Region-wide Growth Forecasts**

The Region's housing (occupied household) and population growth forecast is summarized on Schedules 1, 4, 5 and 6. The 2012-2031 occupancy assumption is 3.05 ppu for new single and semi-detached dwellings, 1.71 for apartment dwellings and 2.20 for other multiples (Schedule 7).

The Region's employment and associated floor area forecast by sector is summarized on Schedule 8.

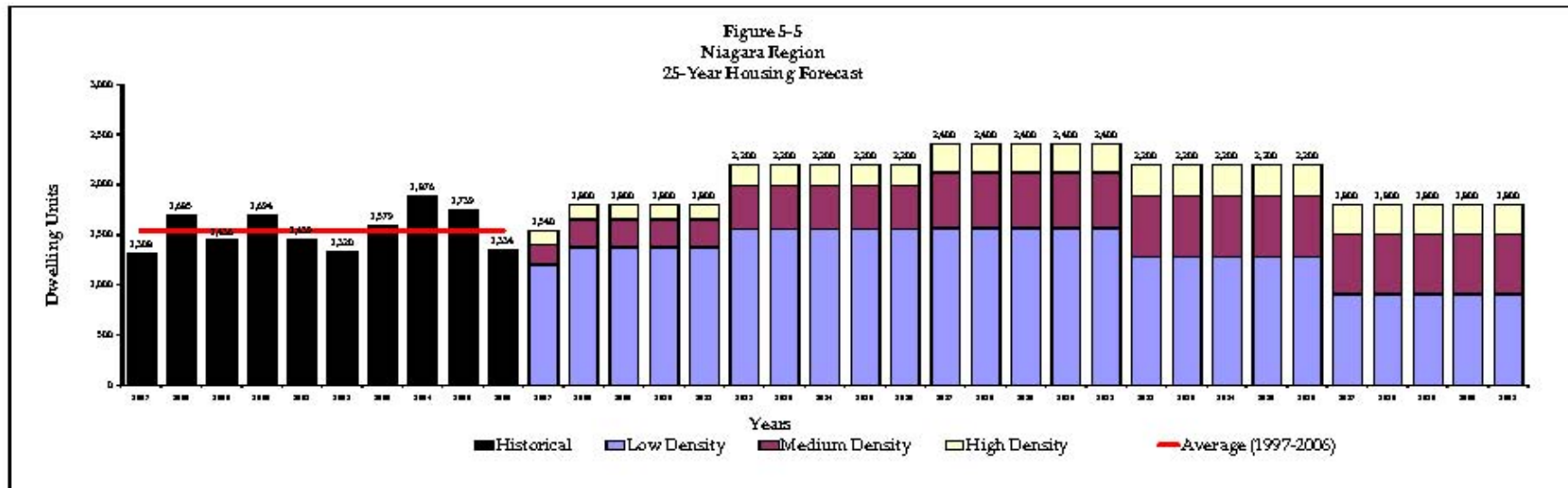
These are the forecasts on which the Region's water and wastewater masterplans are based and, therefore, represent the development over which these capital costs should be allocated and funded. This growth forecast is based on the Region's Growth Management Strategy, as adopted by Regional Council on May 28, 2009 as Regional Policy Plan Amendment 2-2009. The following page contains excerpts from the Growth Management Study. As a result of the major recession of 2008/09 and the continuing slow growth environment in Ontario, the rate of growth in Niagara has underperformed the 2007-2011 short-term forecast and 2011 population actual (431,346). Such short-term variances are not uncommon as part of a long-term forecast. This situation requires regular monitoring by the Region in future, with the possibility of a subsequent update required in the growth forecast, infrastructure program and the development charge.

Schedules 9, 10 and 11 provide additional details regarding historical employment trends.

### **2. Water and Wastewater Area-specific Growth Forecasts**

The Region-wide residential and non-residential growth forecasts have been disaggregated (by AECOM) into forecasts which are specific to the service area for each individual water treatment plant (Schedule 2) and wastewater treatment plant (Schedule 3). This provides the denominator for the calculation of area-specific DCs for those services.

**FIGURE 1  
EXCERPTS FROM GROWTH MANAGEMENT STUDY**



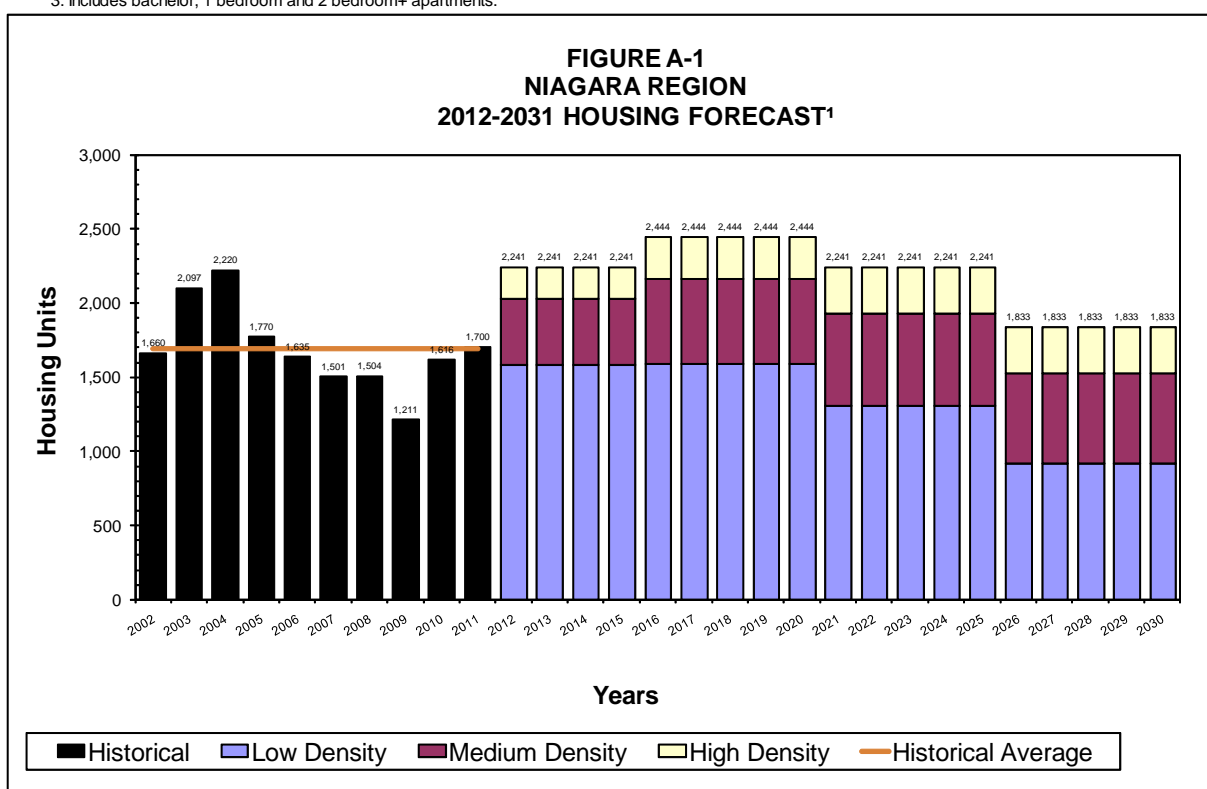
Niagara Region, Population, Household and Employment Targets											
Population				Households				Employment			
2001	2011	2021	2031	2001	2011	2021	2031	2001	2011	2021	2031
427,000	465,200	510,100	545,400	162,415	178,250	201,250	221,240	186,000	207,420	229,410	243,540

**SCHEDULE 1  
REGION OF NIAGARA  
RESIDENTIAL GROWTH FORECAST SUMMARY**

Year	Population (Excluding Census Undercount)	Population (Including Census Undercount) <sup>1</sup>	Housing Units				
			Singles & Semi-Detached	Multiple Dwellings <sup>2</sup>	Apartments <sup>3</sup>	Total Households	Person Per Unit (PPU)
<i>Mid 2001</i>	410,600	427,020	123,615	12,375	26,425	162,415	2.53
<i>Mid 2006</i>	427,400	444,500	125,195	15,860	28,445	169,500	2.52
<i>Mid 2012</i>	449,540	467,520	133,425	17,620	29,395	180,440	2.49
<i>Mid 2022</i>	493,960	513,720	148,988	22,886	31,992	203,866	2.42
<i>Mid 2031</i>	524,400	545,376	158,786	28,427	34,783	221,996	2.36
<b>Mid 2006 - Mid 2012</b>	<b>22,140</b>	<b>23,020</b>	<b>8,230</b>	<b>1,760</b>	<b>950</b>	<b>10,940</b>	
<b>Mid 2012 - Mid 2022</b>	<b>44,420</b>	<b>46,200</b>	<b>15,563</b>	<b>5,266</b>	<b>2,597</b>	<b>23,426</b>	
<b>Mid 2012 - Mid 2031</b>	<b>74,860</b>	<b>77,856</b>	<b>25,361</b>	<b>10,807</b>	<b>5,388</b>	<b>41,556</b>	

Source: Watson & Associates Economists Ltd., December, 2011.

1. Census Undercount estimated at approximately 4%. Note: Population Including the Undercount has been rounded.
2. Includes townhomes and apartments in duplexes.
3. Includes bachelor, 1 bedroom and 2 bedroom+ apartments.



Source: Historical housing activity (2001-2010) based on Statistics Canada building permits, Catalogue 64-001-XIB

1. Growth Forecast represents start year.

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**SCHEDULE 2  
REGION OF NIAGARA (BY WATER PLANT COVERAGE)  
ESTIMATE OF THE ANTICIPATED AMOUNT, TYPE AND LOCATION OF  
DEVELOPMENT FOR WHICH DEVELOPMENT CHARGES CAN BE IMPOSED**

DEVELOPMENT LOCATION	TIMING	SINGLES & SEMI- DETACHED	MULTIPLES <sup>1</sup>	APARTMENTS <sup>2</sup>	TOTAL RESIDENTIAL UNITS	GROSS POPULATION IN NEW UNITS	EXISTING UNIT POPULATION CHANGE	NET POPULATION INCREASE	COMMERCIAL			INSTITUTIONAL GFA S.F.	TOTAL NON- RES GFA S.F.	EMPLOYMENT INCREASE	
									INDUSTRIAL GFA S.F.	HOTEL GFA S.F.	OFFICE GFA S.F.				RETAIL GFA S.F.
Fort Erie (Rosehill)	2012 - 2031	2,131	1,008	502	3,641	9,581	(2,980)	6,601	529,583	250,203	120,756	614,138	191,657	1,706,337	3,170
Decew	2012 - 2031	4,483	2,120	1,057	7,660	20,158	(6,270)	13,888	1,432,482	676,781	326,636	1,661,198	518,417	4,615,514	8,576
Welland	2012 - 2031	6,903	3,265	1,628	11,796	31,042	(9,655)	21,387	906,961	428,497	206,806	1,051,770	328,230	2,922,263	5,430
Grimsby	2012 - 2031	3,027	1,431	714	5,172	13,610	(4,233)	9,377	539,481	254,880	123,013	625,616	195,239	1,738,229	3,230
Port Colborne	2012 - 2031	1,111	526	262	1,899	4,997	(1,554)	3,443	212,186	100,248	48,383	246,064	76,790	683,672	1,270
Niagara Falls	2012 - 2031	5,195	2,457	1,225	8,877	23,359	(7,265)	16,094	1,253,863	592,392	285,907	1,454,060	453,775	4,039,997	7,505
Sub-total (Urban)	2012 - 2031	22,849	10,807	5,388	39,044	102,745	(31,954)	70,791	4,874,557	2,303,000	1,111,500	5,652,846	1,764,108	15,706,011	29,182
Rural	2012 - 2031	2,512	-	-	2,512	7,672	(3,603)	4,069	616,443	-	-	1,003,104	223,092	1,842,639	3,690
Region of Niagara (Total)	2012 - 2031	25,361	10,807	5,388	41,556	110,417	(35,557)	74,860	5,491,000	2,303,000	1,111,500	6,655,950	1,987,200	17,548,650	32,872

Source: AECOM. Gross Floor Area, and Housing Unit allocation by type of development derived by Watson & Associates Economists Ltd., December, 2011

1. Includes townhomes and apartments in duplexes.
2. Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

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**SCHEDULE 3**  
**REGION OF NIAGARA (BY WASTEWATER PLANT COVERAGE)**  
**ESTIMATE OF THE ANTICIPATED AMOUNT, TYPE AND LOCATION OF**  
**DEVELOPMENT FOR WHICH DEVELOPMENT CHARGES CAN BE IMPOSED**

DEVELOPMENT LOCATION	TIMING	SINGLES & SEMI- DETACHED	MULTIPLES <sup>1</sup>	APARTMENTS <sup>2</sup>	TOTAL RESIDENTIAL UNITS	GROSS POPULATION IN NEW UNITS	EXISTING UNIT POPULATION CHANGE	NET POPULATION INCREASE	COMMERCIAL				INSTITUTIONAL GFA S.F.	TOTAL NON- RES GFA S.F.	EMPLOYMENT INCREASE
									INDUSTRIAL GFA S.F.	HOTEL GFA S.F.	OFFICE GFA S.F.	RETAIL GFA S.F.			
Baker Road	2012 - 2031	3,511	1,661	828	5,999	15,788	(4,910)	10,878	639,204	301,994	145,752	741,262	231,329	2,059,541	3,827
Welland	2012 - 2031	6,901	3,264	1,627	11,793	31,033	(9,652)	21,381	906,567	428,310	206,716	1,051,312	328,088	2,920,992	5,427
Anger Avenue	2012 - 2031	1,019	482	240	1,742	4,583	(1,425)	3,158	396,825	187,481	90,484	460,184	143,612	1,278,587	2,376
Port Weller	2012 - 2031	2,579	1,220	608	4,407	11,597	(3,607)	7,990	749,691	354,194	170,945	869,389	271,314	2,415,534	4,488
Niagara Falls	2012 - 2031	4,853	2,295	1,144	8,292	21,822	(6,787)	15,035	1,260,932	595,731	287,519	1,462,257	456,333	4,062,772	7,549
Niagara-on-the-Lake	2012 - 2031	775	367	183	1,325	3,487	(1,084)	2,403	130,649	61,726	29,791	151,509	47,282	420,958	782
Crystal Beach	2012 - 2031	750	355	177	1,282	3,373	(1,049)	2,324	13,942	6,587	3,179	16,168	5,046	44,923	83
Port Dalhousie	2012 - 2031	974	461	230	1,664	4,379	(1,362)	3,017	444,704	210,102	101,402	515,707	160,939	1,432,854	2,662
Queenston	2012 - 2031	12	6	3	20	53	(16)	37	635	300	145	736	230	2,045	4
Seaway	2012 - 2031	1,113	527	263	1,903	5,007	(1,557)	3,450	212,589	100,439	48,475	246,532	76,936	684,971	1,273
Stevensville Douglstown Lagoons	2012 - 2031	361	171	85	617	1,624	(505)	1,119	118,818	56,136	27,093	137,788	43,000	382,835	711
Sub-total (Urban)	2012 - 2031	22,849	10,807	5,388	39,044	102,745	(31,954)	70,791	4,874,557	2,303,000	1,111,500	5,652,846	1,764,108	15,706,011	29,182
Rural	2012 - 2031	2,512	-	-	2,512	7,672	(3,603)	4,069	616,443			1,003,104	223,092	1,842,639	3,690
Region of Niagara (Total)	2012 - 2031	25,361	10,807	5,388	41,556	110,417	(35,557)	74,860	5,491,000	2,303,000	1,111,500	6,655,950	1,987,200	17,548,650	32,872

Source: AECOM. Gross Floor Area, and Housing Unit allocation by type of development derived by Watson & Associates Economists Ltd., December, 2011

1. Includes townhomes and apartments in duplexes.

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

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**SCHEDULE 4  
REGION OF NIAGARA  
CURRENT YEAR GROWTH FORECAST  
MID 2006 TO MID 2012**

		POPULATION
<b>Mid 2006 Population</b>		<b>427,400</b>
Occupants of New Housing Units, Mid 2006 to Mid 2012	<i>Units (2)</i>	10,940
	<i>multiplied by persons per unit (3)</i>	2.74
	<i>gross population increase</i>	30,009
		30,009
Decline in Housing Unit Occupancy, Mid 2006 to Mid 2012	<i>Units (4)</i>	169,500
	<i>multiplied by ppu decline rate (5)</i>	-0.0464
	<i>total decline in population</i>	-7,869
		-7,869
<b>Population Estimate to Mid 2012</b>		<b>449,540</b>
<i>Net Population Increase, Mid 2006 to Mid 2012</i>		<i>22,140</i>

- (1) 2006 population based on StatsCan Census unadjusted for Census Undercount.
- (2) Estimated residential units constructed, Mid 2006 to the beginning of the growth period, assuming a six month lag between construction and occupancy.
- (3) Average number of persons per unit (ppu) is assumed to be:

Structural Type	Persons Per Unit <sup>1</sup>	% Distribution of Estimated Units <sup>2</sup>	Weighted Persons Per Unit Average
<i>Singles &amp; Semi Detached</i>	2.99	75%	2.25
<i>Multiples (6)</i>	2.05	16%	0.33
<i>Apartments (7)</i>	1.89	9%	0.16
Total		100%	2.74

<sup>1</sup> Based on 2006 Census custom database

<sup>2</sup> Based on Building permit/completion activity

- (4) 2006 households taken from StatsCan Census.
- (5) Decline occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions.
- (6) Includes townhomes and apartments in duplexes.
- (7) Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

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**SCHEDULE 5  
REGION OF NIAGARA  
TEN YEAR GROWTH FORECAST  
MID 2012 TO MID 2022**

		POPULATION
<b>Mid 2012 Population</b>		<b>449,540</b>
Occupants of New Housing Units, Mid 2012 to Mid 2022	<i>Units (2)</i>	23,426
	<i>multiplied by persons per unit (3)</i>	2.71
	<i>gross population increase</i>	63,544
		<b>63,544</b>
Decline in Housing Unit Occupancy, Mid 2012 to Mid 2022	<i>Units (4)</i>	180,440
	<i>multiplied by ppu decline rate (5)</i>	-0.1060
	<i>total decline in population</i>	-19,124
		<b>-19,124</b>
<b>Population Estimate to Mid 2022</b>		<b>493,960</b>
<i>Net Population Increase, Mid 2012 to Mid 2022</i>		<b>44,420</b>

(1) Mid 2012 Population based on:

Extrapolated from the 2011 & 2016 estimates. (i.e. 20% of (2016 minus 2011) + 2011)

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

(3) Average number of persons per unit (ppu) is assumed to be:

Structural Type	Persons Per Unit <sup>1</sup>	% Distribution of Estimated Units <sup>2</sup>	Weighted Persons Per Unit Average
<i>Singles &amp; Semi Detached</i>	3.05	66%	2.03
<i>Multiples (6)</i>	2.20	22%	0.49
<i>Apartments (7)</i>	1.71	11%	0.19
<i>one bedroom or less</i>	1.27		
<i>two bedrooms or more</i>	1.93		
<b>Total</b>		<b>100%</b>	<b>2.71</b>

<sup>1</sup> Persons per unit based on adjusted Statistics Canada Custom 2006 Census database.

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

(4) Mid 2012 households based upon 169,500 (2006 Census) + 10,940 (Mid 2006 to Mid 2012 unit estimate) = 180,440

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

(6) Includes townhomes and apartments in duplexes.

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

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**SCHEDULE 6  
REGION OF NIAGARA  
LONG TERM (19 YRS.) GROWTH FORECAST  
MID 2012 TO MID 2031**

		POPULATION
Mid 2012 Population		449,540
Occupants of New Housing Units, Mid 2012 to 2031	<i>Units (2)</i>	41,556
	<i>multiplied by persons per unit (3)</i>	2.66
	<i>gross population increase</i>	110,417
Decline in Housing Unit Occupancy, Mid 2012 to 2031	<i>Units (4)</i>	180,440
	<i>multiplied by ppu. decline rate (5)</i>	-0.1971
	<i>total decline in population</i>	-35,557
Population Estimate to Buildout		524,400
<i>Net Population Increase, Mid 2012 to 2031</i>		74,860

(1) Mid 2012 Population based on:

Extrapolated from the 2011 & 2016 estimates. (i.e. 20% of (2016 minus 2011) + 2011)

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

(3) Average number of persons per unit (ppu) is assumed to be:

Structural Type	Persons Per Unit <sup>1</sup>	% Distribution of Estimated Units <sup>2</sup>	Weighted Persons Per Unit Average
<i>Singles &amp; Semi Detached</i>	3.05	61%	1.86
<i>Multiples (6)</i>	2.20	26%	0.57
<i>Apartments (7)</i>	1.71	13%	0.22
<i>one bedroom or less</i>	1.27		
<i>two bedrooms or more</i>	1.93		
<b>Total</b>		100%	2.66

<sup>1</sup> Persons per unit based on adjusted Statistics Canada Custom 2006 Census database.

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

(4) Mid 2012 households based upon 169,500 (2006 Census) + 10,940 (Mid 2006 to Mid 2012 unit estimate) = 180,440

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

(6) Includes townhomes and apartments in duplexes.

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

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## SCHEDULE 7

**REGION OF NIAGARA  
PERSONS PER UNIT BY AGE AND TYPE OF DWELLING  
(2006 CENSUS)**

Age of Dwelling	SINGLES AND SEMI-DETACHED						Adjusted PPU <sup>1</sup>	20 Year Average
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	2.200	2.158	3.125	4.714	3.023	2.99	
6-10	-	2.278	2.137	3.201	4.075	3.075	3.04	
11-15	-	1.571	1.905	3.155	4.741	3.107	3.08	
16-20	-	1.654	1.825	3.173	4.491	3.120	3.10	3.05
20-25	-	1.727	1.935	3.047	4.043	2.973	2.96	
25-35	1.667	1.902	2.156	2.800	3.760	2.776	2.77	
35+	1.875	1.577	1.910	2.636	3.862	2.489	2.49	
<b>Total</b>	<b>2.045</b>	<b>1.653</b>	<b>1.949</b>	<b>2.808</b>	<b>4.063</b>	<b>2.688</b>		

Age of Dwelling	MULTIPLES <sup>2</sup>						Adjusted PPU <sup>1</sup>	20 Year Average
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	1.485	1.850	2.426	-	2.068	2.05	
6-10	-	1.571	1.769	2.583	-	2.162	2.14	
11-15	-	1.571	1.832	2.931	-	2.483	2.47	
16-20	-	1.294	1.604	2.474	-	2.150	2.14	2.20
20-25	-	1.769	2.280	2.806	-	2.621	2.61	
25-35	-	1.241	2.099	2.509	3.692	2.383	2.38	
35+	1.000	1.280	2.067	2.759	2.935	2.243	2.24	
<b>Total</b>	<b>1.235</b>	<b>1.351</b>	<b>1.944</b>	<b>2.660</b>	<b>3.313</b>	<b>2.281</b>		

Age of Dwelling	APARTMENTS <sup>3</sup>						Adjusted PPU <sup>1</sup>	20 Year Average
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	1.333	1.854	-	-	1.889	1.89	
6-10	1.429	1.238	1.794	2.684	-	1.652	1.65	
11-15	1.538	1.257	1.824	2.649	-	1.643	1.64	
16-20	1.176	1.220	1.780	2.545	-	1.645	1.65	1.71
20-25	1.212	1.240	2.029	2.585	-	1.655	1.65	
25-35	1.516	1.211	1.812	2.981	-	1.672	1.67	
35+	1.372	1.291	1.802	2.544	3.212	1.689	1.69	
<b>Total</b>	<b>1.401</b>	<b>1.260</b>	<b>1.823</b>	<b>2.634</b>	<b>3.182</b>	<b>1.677</b>		

Age of Dwelling	ALL DENSITY TYPES					
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total
1-5	-	1.635	2.028	3.044	4.593	2.806
6-10	1.471	1.495	1.957	3.126	4.197	2.787
11-15	2.588	1.310	1.852	3.097	4.726	2.674
16-20	1.217	1.280	1.762	3.083	4.420	2.716
20-25	1.237	1.286	2.040	2.999	3.961	2.536
25-35	1.544	1.279	1.948	2.778	3.724	2.513
35+	1.427	1.363	1.895	2.639	3.759	2.349
<b>Total</b>	<b>1.493</b>	<b>1.345</b>	<b>1.907</b>	<b>2.792</b>	<b>3.981</b>	<b>2.479</b>

1. The Census PPU has been adjusted, by evaluating trends between Census periods, to account for the downward PPU trend which has been recently experienced in both new and older units, largely due to the aging of the population. High density PPU has not been adjusted, as the current trend has remained constant.

2. Includes townhomes and apartments in duplexes.

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

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

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

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**SCHEDULE 8  
REGION OF NIAGARA  
EMPLOYMENT AND GROSS FLOOR AREA (GFA) FORECAST, 2012 TO MID 2031**

Period	Population	Activity Rate								Employment							
		Primary	Work at Home	Industrial	Hotel	Office	Retail	Institutional	Total	Primary	Work at Home	Industrial	Hotel	Office	Retail	Institutional	Total
<b>2006</b>	427,400	0.009	0.032	0.104	0.016	0.031	0.139	0.082	0.413	3,990	13,665	44,293	6,785	13,364	59,583	34,975	176,655
<b>Mid 2012</b>	449,540	0.014	0.033	0.100	0.017	0.034	0.149	0.078	0.426	6,490	15,012	44,880	7,676	15,180	67,188	34,892	191,318
<b>Mid 2022</b>	493,960	0.015	0.035	0.099	0.018	0.035	0.155	0.073	0.429	7,236	17,140	48,924	8,731	17,372	76,571	35,922	211,896
<b>Mid 2031</b>	524,400	0.015	0.036	0.097	0.018	0.035	0.156	0.071	0.428	7,720	18,810	50,660	9,321	18,600	81,979	37,100	224,190 <sup>2</sup>
<b>Incremental Change</b>																	
<b>2006 - Mid 2012</b>	22,140	0.005	0.001	-0.004	0.001	0.002	0.010	-0.004	0.012	2,500	1,347	588	891	1,816	7,605	-83	14,663
<b>Mid 2012 - Mid 2022</b>	44,420	0.000	0.001	-0.001	0.001	0.001	0.006	-0.005	0.003	746	2,128	4,044	1,055	2,192	9,383	1,030	20,578
<b>Mid 2012 - Mid 2031</b>	74,860	0.000	0.002	-0.003	0.001	0.002	0.007	-0.007	0.002	1,230	3,798	5,780	1,645	3,420	14,791	2,208	32,872
<b>Annual Average</b>																	
<b>2006 - Mid 2012</b>	3,690	0.001	0.000	-0.001	0.000	0.000	0.002	-0.001	0.002	417	225	98	149	303	1,267	-14	2,444
<b>Mid 2012 - Mid 2022</b>	4,442	0.0000	0.0001	-0.0001	0.0001	0.0001	0.0006	-0.0005	0.0003	75	213	404	106	219	938	103	2,058
<b>Mid 2012 - Mid 2031</b>	3,940	0.0000	0.0001	-0.0002	0.0000	0.0001	0.0004	-0.0004	0.0001	65	200	304	87	180	778	116	1,730

Source: Watson & Associates Economists Ltd., December, 2011.

1. Square Foot Per Employee Assumptions

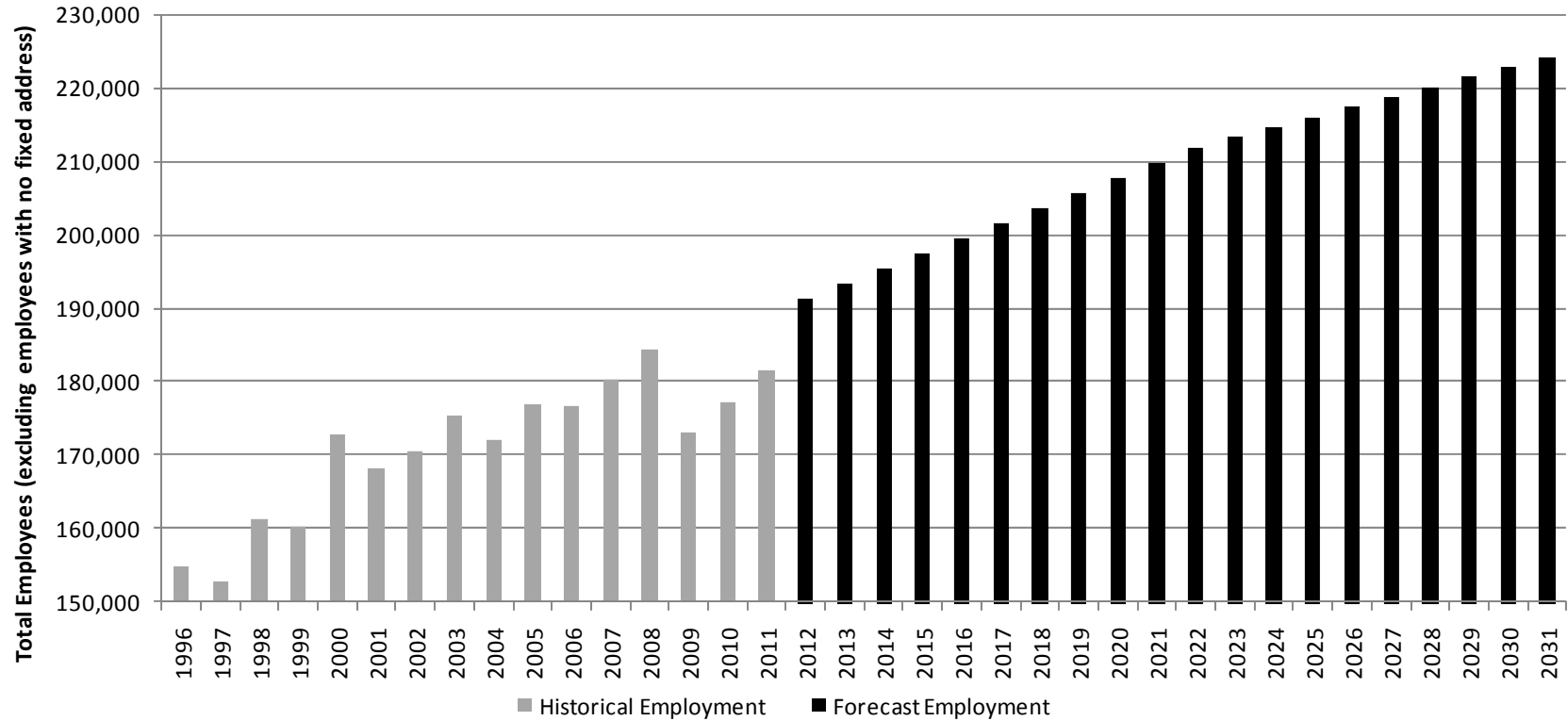
Industrial	950
Hotel	1,400
Office	325
Retail	450
Institutional	900

2. Total Employment = 243,540 (224,190 + 19,350 No Fixed Place of Work)

Gross Floor Area in Square Feet (Estimated) <sup>1</sup>						
Incremental Change						
	Industrial	Hotel	Office	Retail	Institutional	Total
Mid 2012 - Mid 2022	3,841,800	1,477,000	712,400	4,222,350	927,000	11,180,550
Mid 2012 - Mid 2031	5,491,000	2,303,000	1,111,500	6,655,950	1,987,200	17,548,650
Annual Average						
Mid 2012 - Mid 2022	384,180	147,700	71,240	422,235	92,700	1,118,055
Mid 2012 - Mid 2031	289,000	121,211	58,500	350,313	104,589	923,613

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## Schedule 9 - Niagara Region Total Employment 1996-2031



**Historical Employment** - 1996, 2001, and 2006 are based on the Census. 2011 is estimated based on Statistics Canada Labour Market Survey (LFS) for the CMA for Niagara - St. Catharines. Years between Census years, have been estimated based on trends in the LFS. **Forecast Employment** - based on the Niagara Growth Management Strategy. Totals are interpolated between Census periods.

**SCHEDULE 10**  
**REGION OF NIAGARA**  
**EMPLOYMENT TO POPULATION RATIO BY MAJOR EMPLOYMENT SECTOR, 1996 TO 2006**

		Year			Change		
		1996	2001	2006	96-01	01-06	
<b>Employment by industry</b>							
<b>1.0</b>	<b>Primary Industry Employment</b>						Categories which relate to
1.1	All primary	7,120	6,595	6,395	-525	-200	local land-based resources.
	<b>Sub-total</b>	<b>7,120</b>	<b>6,595</b>	<b>6,395</b>	<b>-525</b>	<b>-200</b>	
<b>2.0</b>	<b>Industrial and Other Employment</b>						Categories which relate
2.1	Manufacturing	30,230	28,730	22,860	-1,500	-5,870	primarily to industrial land
2.2	Wholesale trade	6,175	6,140	6,395	-35	255	supply and demand.
2.3	Construction	5,130	6,005	6,395	875	390	
2.4	Transportation, storage, communication and other utility	7,385	10,235	11,605	2,850	1,370	
	<b>Sub-total</b>	<b>48,920</b>	<b>51,110</b>	<b>47,255</b>	<b>2,190</b>	<b>-3,855</b>	
<b>3.0</b>	<b>Population Related Employment</b>						Categories which relate
3.1	Retail trade	22,905	22,730	22,750	-175	20	primarily to population
3.2	Finance, insurance, real estate operator and insurance agent	6,965	7,685	8,715	720	1,030	growth within the
3.3	Business service	7,215	11,655	14,340	4,440	2,685	municipality.
3.4	Accommodation, food and beverage and other service	27,015	34,585	40,505	7,570	5,920	
	<b>Sub-total</b>	<b>64,100</b>	<b>76,655</b>	<b>86,310</b>	<b>12,555</b>	<b>9,655</b>	
<b>4.0</b>	<b>Institutional</b>						
4.1	Government Service	6,560	6,555	6,885	-5	330	
4.2	Education service, Health, Social Services	28,245	27,315	29,810	-930	2,495	
	<b>Sub-total</b>	<b>34,805</b>	<b>33,870</b>	<b>36,695</b>	<b>-935</b>	<b>2,825</b>	
	<b>Total Employment</b>	<b>154,945</b>	<b>168,230</b>	<b>176,655</b>	<b>13,285</b>	<b>8,425</b>	
	<b>Population</b>	<b>403,504</b>	<b>410,574</b>	<b>427,421</b>	<b>7,070</b>	<b>16,847</b>	
	<b>Employment to Population Ratio</b>						
	Industrial and Other Employment	0.12	0.12	0.11	0.00	-0.01	
	Population Related Employment	0.16	0.19	0.20	0.03	0.02	
	Institutional Employment	0.09	0.08	0.09	0.00	0.00	
	Primary Industry Employment	0.02	0.02	0.01	0.00	0.00	
	<b>Total</b>	<b>0.38</b>	<b>0.41</b>	<b>0.41</b>	<b>0.03</b>	<b>0.00</b>	

Source: Statistics Canada Employment by Place of Work

Note: 1996-2006 employment figures are classified by Standard Industrial Classification (SIC) Code

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**SCHEDULE 11**  
**REGION OF NIAGARA**  
**2012-2031 EMPLOYMENT FORECAST**

**SERVICED**

Development Type	2012-2022				2012-2031			
	Employees	Sq.ft./Employee	Employees/ 1,000 sq.ft.	GFA (sq.ft.)	Employees	Sq.ft./Employee	Employees/ 1,000 sq.ft.	GFA (sq.ft.)
Office	2,192	325	3.08	712,400	3,420	325	3.08	1,111,500
Retail	7,600	450	2.22	3,420,208	12,562	450	2.22	5,652,846
Sub-total	9,792	422	2.37	4,132,608	15,982	423	2.36	6,764,346
Industrial	3,541	950	1.05	3,364,394	5,131	950	1.05	4,874,557
Institutional	902	900	1.11	811,805	1,960	900	1.11	1,764,108
Hotel/Motel	1,055	1,400	0.71	1,477,000	1,645	1,400	0.71	2,303,000
Serviced Sub-total	15,291	640	1.56	9,785,806	24,718	635	1.57	15,706,011

**RURAL**

Development Type	2012-2022				2012-2031			
	Employees	Sq.ft./Employee	Employees/ 1,000 sq.ft.	GFA (sq.ft.)	Employees	Sq.ft./Employee	Employees/ 1,000 sq.ft.	GFA (sq.ft.)
Office	-	-	-	-	-	-	-	-
Retail	1,783	450	2.22	802,142	2,229	450	2.22	1,003,104
Sub-total	1,783	450	2.22	802,142	2,229	450	2.22	1,003,104
Industrial	503	950	1.05	477,406	649	950	1.05	616,443
Institutional	128	900	1.11	115,195	248	900	1.11	223,092
Hotel/Motel	-	-	-	-	-	-	-	-
Rural Sub-total	2,413	578	1.73	1,394,744	3,126	589	1.70	1,842,639

**TOTAL**

Development Type	2012-2022				2012-2031			
	Employees	Sq.ft./Employee	Employees/ 1,000 sq.ft.	GFA (sq.ft.)	Employees	Sq.ft./Employee	Employees/ 1,000 sq.ft.	GFA (sq.ft.)
Office	2,192	325	3.08	712,400	3,420	325	3.08	1,111,500
Retail	9,383	450	2.22	4,222,350	14,791	450	2.22	6,655,950
Sub-total	11,575	426	2.35	4,934,750	18,211	427	2.34	7,767,450
Industrial	4,044	950	1.05	3,841,800	5,780	950	1.05	5,491,000
Institutional	1,030	900	1.11	927,000	2,208	900	1.11	1,987,200
Hotel/Motel	1,055	1,400	0.71	1,477,000	1,645	1,400	0.71	2,303,000
Total	17,704	632	1.58	11,180,550	27,844	630	1.59	17,548,650

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**APPENDIX B**  
**DEVELOPMENT CHARGE RECOVERABLE COST**  
**CALCULATIONS**

## **B-1 DEVELOPMENT-RELATED STUDIES**

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## **B-1 DEVELOPMENT-RELATED STUDIES**

### **B-1.1 DC Calculation Planning Period**

2012-2021

### **B-1.2 Service Coverage and Capital Program**

The Region of Niagara will be required to undertake a significant number of studies over the 2012-2021 period that are directly or indirectly related to its capital program for providing services to new development. These studies are potentially applicable to virtually all departments and boards in the Region, including Planning and Development, Public Works, Emergency Medical Services, Finance, Police Services, etc.

The Region expects to carry out approximately \$3 million in studies over the next decade which are significantly growth-related. These include:

- Planning Studies, including
  - Smart Growth;
  - The Growth Plan;
  - Community Improvement Plans; and
  - Servicing Allocation Studies;
- DC Studies (including a minimum of two by-law updates);
- Engineering Studies (including Development Services Studies, but excluding Water, Wastewater and Transportation Masterplans, as the cost of these studies are included in the capital programs for those individual services);
- Other (e.g. servicing and facility planning for EMS, Police, etc.).

These studies will generally establish the amount and location of anticipated growth in the Region at both a “macro” and “micro” level, together with the way in which such growth can be accommodated and the municipal servicing implications thereof.

### **B-1.3 Level of Service Measurement**

The “level of service” for development-related studies can be approximated on an expenditure per growth increment basis; however, in the final analysis, in Niagara Region the requirement fundamentally relates to the fulfilment of the provisions of the Region’s Official Plan. Study needs also relate to the needs of the primary development areas (i.e. servicing plans and community improvement plans), which shift over time.

### **B-1.4 Benefit to Existing (BTE) Development Deduction**

Much of this studies program is largely development-related, including the development charge background studies and updates, as well as Planning and Public Works studies relating specifically to estimating and accommodating growth on a location-specific basis, e.g. growth management.

Other major projects inevitably provide minor benefits to existing development, in addition to addressing growth-related challenges and opportunities.

In order to recognize this situation, a 5% deduction has been allocated for benefit to existing development, on the understanding that the gross study cost estimates are generally net of the share of study costs that are applicable to existing development.

### **B-1.5 Post Period/Excess Capacity**

No Post Period/Excess Capacity deduction is applicable, as many of the studies require regular updating.

### **B-1.6 Grants, Subsidies and Other Contributions**

No grants, subsidies or other contributions are anticipated for any of the types of Development-related Study projects included in the DC calculation.

### **B-1.7 10% Statutory Deduction**

Those studies which relate directly or indirectly to the provision of roads, water, wastewater and police services do not require a 10% deduction under s.s.5(1)8 of the DCA. All studies which relate to the provision of other municipal services do require a 10% deduction. Most of the Planning and Financing studies underpin the full array of municipal services; however, it is estimated that 90% of the study content will pertain to roads, water, wastewater, and police. Therefore a deduction of 1% has been applied overall.

### **B-1.8 Use of Reserve Funds**

The December 31, 2011 uncommitted DC reserve fund balance has been netted in making the DC calculation for General Government.

### **B-1.9 Residential vs. Non-Residential Allocation**

The net growth related costs have been allocated between residential and non-residential development based on the share of population as a percentage of population and employment:

Over the next decade, on a Region-wide basis, the Region's population is expected to increase by 44,420 persons and its workforce by 20,578 persons. Thus, the residential:non-residential allocation has been calculated as:

$$\frac{44,420 \text{ additional persons}}{44,420 \text{ persons} + 20,578 \text{ additional employees}} = 68\% \text{ residential and } 32\% \text{ non-residential}$$

**INFRASTRUCTURE COSTS COVERED IN THE DC CALCULATION**  
**MUNICIPALITY: Region of Niagara**

**SERVICE: Studies**

Prj. No.	Increased Service Needs Attributable to Anticipated Development 2012-2021	Timing	Gross Capital Cost Est.	Ineligible re: Level of Service	Eligible Increase in Need	Less:		Sub Total	Less: Other (e.g. 10% Statutory Deduction)	Potential DC Recoverable Cost		
						Benefit to Existing Development/ U.E.C. <sup>1</sup>	Grants, Subsidies & Other Contributions Attrib. to New Development			Net Costs Benefiting New Development	Residential Share 68%	Non-Residential Share 32%
	<b>Already Constructed</b>											
	<b>Cost to be Incurred During Term of Proposed By-law</b>											
	Development Related Studies	2012-2016	1,500,000		1,500,000	75,000	-	1,425,000	14,250	1,410,750	959,310	451,440
	<b>Cost to be Incurred Post By-law Term (i.e. beyond 2016)</b>											
	Development Related Studies	2017-2021	1,500,000		1,500,000	75,000	-	1,425,000	14,250	1,410,750	959,310	451,440
	<b>Total Estimated Capital Cost</b>		<b>\$ 3,000,000</b>	<b>\$ -</b>	<b>\$ 3,000,000</b>	<b>\$ 150,000</b>	<b>\$ -</b>	<b>\$ 2,850,000</b>	<b>\$ 28,500</b>	<b>\$ 2,821,500</b>	<b>\$ 1,918,620</b>	<b>\$ 902,880</b>

<sup>1</sup> Uncommitted excess capacity and inclusive of post planning period capacity, where applicable

**B-2 POLICE**

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## **B-2 POLICE**

### **B-2.1 DC Calculation Planning Period**

2012-2021

### **B-2.2 Service Coverage and Capital Program**

Niagara Regional Police Services currently provides policing and public safety services within the Region. The capital program involves a new/expanded headquarters building combined with the Niagara Falls Detachment with a total floor area of 198,000 sq.ft. and with an estimated cost of \$74.32 million. This facility will replace 149,209 sq.ft. of space at a number of existing buildings including the current Niagara Falls detachment, as well as 110 James St. and Church Street, and provide a number of centralized services such as Investigation, Intelligence, Property and Evidence, and Victim Services. The net increase in floor area will be 48,791 sq.ft. As this represents 24.6% of the new building (48,791/198,000), it has been determined that 24.6% of the cost of the new facility (\$18,282,720) can be considered to be related to capacity expansion.

No provision has been made for additional vehicles, as the service level cap has been fully consumed by facility requirements.

### **B-2.3 Level of Service Measurement**

The level of service for Police includes stations and equipped vehicles. In order to remove space related to administration (which is development charge ineligible) an adjustment to the facility inventory has been made. Until approximately 2007, the Headquarters in St. Catharines included general administrative functions such as personnel, finance, etc. For the 2002 to 2007 period, 15% of the floor space of this building was removed from the inventory to reflect these administrative functions. These functions have been relocated to 110 James St. and account for approximately 10,000 sq.ft. of floor space which has been removed from the inventory as of 2008.

The average development cost per square foot is estimated to be \$283, inclusive of land, buildings, furniture/furnishings/equipment, etc. (2012 \$). The Region has gradually increased its inventory of facility space over the past ten years.

Equipped vehicles with a useful life of seven years or more are also included in the service level calculation. The inclusion of police cars as part of DCs is considered to be permissible, based on their having an equivalent useful life of seven years or more. Fleet expansions are clearly growth-related and the police service is given special treatment in the DCA, along with sewer, water and roads. Police vehicles have an anticipated useful lifetime of beyond seven years, based on one shift per day use, which is the normal basis for determining use. The seven year provision is a DC minimum threshold. The vehicles are actually used virtually "24/7" and, as a result, are only used in a patrol function for several years. Many are subsequently used for non patrol car functions (e.g. training) or replacement vehicles while vehicles are being repaired, or



are sold and used by others. The average value for a fully equipped vehicle for the existing inventory is \$36,822/vehicle. This is based on the average 2012 cost to replace the vehicles. As noted above, vehicles form part of the level of service calculation, but not the DC expenditure plan.

#### **B-2.4 Benefit to Existing (BTE) Development Deduction**

Facilities were assigned a 5% benefit to existing (BTE) deduction, in order to make provision for a possible minor overall service level benefit to the Region as a whole in terms of improved efficiency of operations.

#### **B-2.5 Post Period/Excess Capacity Deduction**

No deductions are applicable for post period capacity, as the requirements have been calculated on a per capita needs basis only for the next ten-year period.

#### **B-2.6 Grants, Subsidies and Other Contributions**

No grants, subsidies or other contributions are anticipated for the Niagara Regional Police projects.

#### **B-2.7 10% Statutory Deduction**

Section 5 (1) 8. of the DCA does not apply to Police Services therefore, no deduction is made for this purpose.

#### **B-2.8 Use of Reserve Funds**

As these funds were collected from growth 2009-2011, they are to be used for the 2009-2011 DC recoverable costs of future DC projects, which is now part of the benefit to existing and/or ineligible re level of service deduction.

#### **B-2.9 Residential vs. Non-Residential Allocation**

As with studies, the net growth related costs have been allocated between residential and non-residential development (which represent proxies for the need for additional service) based on the share of population as a percentage of population and employment:

Over the next decade, on a Region-wide basis, the Region's population is expected to increase by 44,420 persons and its workforce by 20,578 persons. Thus, the residential:non-residential allocation has been calculated as:

$$\frac{44,420 \text{ additional persons}}{44,420 \text{ persons} + 20,578 \text{ additional employees}} = 68\% \text{ residential and } 32\% \text{ non-residential}$$

Niagara Region  
2012 Development Charges Background Study

## SERVICE: POLICE FACILITIES

## Level of Service Calculation Sheet

Contact:

Unit Measure:

Square Feet of Building Area

Police Facilities	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Value (2012 \$/sq.ft.)	Weighted Average	
												Sq Ft.	Cost
Operations Service Branch (3250 Schmon Pkwy) Thorold	6,019	6,019	6,019	6,019	6,019	6,019	6,019	7,219	7,219	7,219	279	63,790	\$ 17,797,410
Police Building (Thompson Road) Fort Erie	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	279	28,000	\$ 7,812,000
Police Building (Clarke St.) Grimsby	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	8,100	8,100	481	45,000	\$ 21,645,000
Police Building (Division 22) Niagara Falls	17,900	17,900	17,900	17,900	17,900	17,900	17,900	17,900	17,900	17,900	279	179,000	\$ 49,941,000
Police Building (501 Fielden Ave) Port Colborne	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	279	40,000	\$ 11,160,000
Police Building (Headquarters and Div. 11) St. Catharines <sup>1</sup>	64,284	64,284	64,284	64,284	64,284	64,284	75,628	75,628	75,628	75,628	279	688,215	\$ 192,011,929
Police Building (Division 33,) (5 Lincoln Ave.) Crowland Tp.	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	279	290,000	\$ 80,910,000
Police Building (Police Office), (247 Ridge Road), Ridgeway	500	500	500	500	500		-				279	2,500	\$ 697,500
Police Building (Fleet & Supply) Thorold	19,300	19,300	19,300	19,300	19,300	19,300	19,300	19,300	19,300	19,300	279	193,000	\$ 53,847,000
Police Building 110 James St. St. Catharines <sup>1</sup>	12,234	12,234	12,234	50,000	50,000	50,000	40,000	40,000	40,000	40,000	279	346,702	\$ 96,729,858
Police Building 5741 River Rd. Niagara Falls		4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	279	40,500	\$ 11,299,500
Police Building Training/Range/Video, 300 Woodlawn Rd. Welland, Niagara College	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	279	250,000	\$ 69,750,000
2 Cushman Road			17,364	17,364	17,364	17,364	17,364	17,364	17,364	17,364	279	138,912	\$ 38,756,448
63 Church St. St. Catharines - Server room rental space								2,025	2,025	2,025	279	6,075	\$ 1,694,925
Hwy #20 Secure storage rental facility							-	15,000	15,000	15,000	279	45,000	\$ 12,555,000
<b>Total</b>	<b>184,637</b>	<b>189,137</b>	<b>206,501</b>	<b>244,267</b>	<b>244,267</b>	<b>243,767</b>	<b>245,111</b>	<b>263,336</b>	<b>267,836</b>	<b>267,836</b>		<b>2,356,694</b>	<b>\$ 666,607,570</b>
													<b>\$ 283</b>

Population	412,973	415,911	419,972	424,373	427,421	431,831	435,935	439,886	443,141	447,334
Per Capita Service Level	0.4471	0.4548	0.4917	0.5756	0.5715	0.5645	0.5623	0.5986	0.6044	0.5987

10 Year Average	2002-2011
Quantity per capita	0.5469
Quality (\$/sq.ft.)	\$283
Combined Quantity/Quality Level (\$/capita)	\$155

DC Amount (before deductions)	Ten Year
Forecast Population	44,420
\$ per Capita	155
Eligible Amount	6,885,100

## Notes:

1. Until approximately 2007, the St. Catharines station included general administrative functions such as personnel, finance, etc. For the 2002 to 2007 period, 15% of the floor space of this building was removed from the inventory to reflect these administrative functions. These functions have been relocated to 110 James St. and account for approximately 10,000 sq.ft. of floor space which has been removed from the inventory as of 2008.

2. The cost per sq.ft includes FFE and site servicing. For most buildings, It has been increased from 2008 \$ based on changes in the Construction Cost Index.

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Niagara Region  
2012 Development Charges Background Study

SERVICE: POLICE VEHICLES

Level of Service Calculation Sheet

Contact:  
Unit Measure: # of Vehicles

Vehicle Type	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Replacement Value/Unit (2012\$/Vehicle)	Weighted Average	
												Vehicle	Cost
Mobile Command Post	1	1	1	1	1	1	1	1	1	1	\$ 165,000	10	\$ 1,650,000
Bomb Truck	1	1	1	1	1	1	1	1	1	1	\$ 100,000	10	\$ 1,000,000
Emergency Task Unit	1	1	1	1	1	1	1	1	1	1	\$ 100,000	10	\$ 1,000,000
Boats	2	-	1	1	1	2	2	2	2	2	\$ 80,000	15	\$ 1,200,000
Medeiros	1	1	1	1	1	1	-	-	-	-	\$ 235,000	10	\$ 2,350,000
Boat Trailers	3	2	4	4	4	4	5	5	5	5	\$ 10,000	31	\$ 310,000
Hike 30 Foot Command Vessel	1	1	1	1	1	1	1	1	1	1	\$ 250,000	6	\$ 1,500,000
Protector, 28 Foot Patrol Vessel	1	1	1	1	1	1	1	1	1	1	\$ 300,000	6	\$ 1,800,000
Bomb Trailer	1	1	1	1	1	1	1	1	1	1	\$ 10,000	10	\$ 100,000
OneTon Pick-up Truck	2	2	2	3	3	3	4	4	4	4	\$ 35,000	20	\$ 700,000
One Ton Cube Van	2	3	1	1	1	1	1	1	1	1	\$ 75,000	17	\$ 1,275,000
Utility Trailers	1	2	3	3	3	3	3	3	3	3	\$ 10,000	15	\$ 150,000
One Ton Van Prisoner Transport	5	5	5	5	5	5	5	5	5	5	\$ 90,000	46	\$ 4,140,000
Personal Watercraft (See Doos)	2	2	2	2	2	2	2	2	2	2	\$ 10,000	18	\$ 180,000
Personal Water Craft Trailers	2	3	2	2	2	2	2	2	2	2	\$ 10,000	19	\$ 190,000
One Ton Van, 15 Passenger	1	1	1	1	1	1	2	2	3	3	\$ 60,000	10	\$ 600,000
SUV, Special Service Package	3	3	11	11	11	11	12	12	13	13	\$ 40,000	57	\$ 2,280,000
SUV, Tactical	2	2	2	2	2	2	3	4	4	4	\$ 40,000	21	\$ 840,000
Patrol Cruisers	93	94	95	99	99	99	105	111	118	124	\$ 42,000	944	\$ 39,648,000
Non-Patrol Vehicles	116	116	125	125	134	134	136	138	140	141	\$ 27,000	1,168	\$ 31,536,000
Motorcycles	5	5	6	6	6	6	6	6	7	7	\$ 25,000	53	\$ 1,325,000
Light Vans	19	19	20	20	26	26	29	32	35	38	\$ 27,000	206	\$ 5,562,000
Light Truck	4	4	4	5	5	5	7	9	11	12	\$ 35,000	40	\$ 1,400,000
Medium Truck	3	3	3	3	3	3	3	3	3	3	\$ 65,000	30	\$ 1,950,000
ATV	2	4	4	4	4	4	4	4	4	4	\$ 15,000	22	\$ 330,000
Tow Motors	2	2	2	2	2	2	2	2	2	2	\$ 30,000	20	\$ 600,000
Total	276	279	300	306	321	323	340	353	370	381		2,814	\$ 103,616,000
													\$ 36,822

Population	412,973	415,911	419,972	424,373	427,421	431,831	435,935	439,886	443,141	447,334
Service Level per 1,000 persons	0.6683	0.6708	0.7143	0.7211	0.7510	0.7480	0.7799	0.8025	0.8349	0.8517

10 Year Average	2002-2011
Quantity per 1,000 persons	0.7543
Quality (\$/vehicle)	\$ 36,821.6
Combined Quantity/Quality Level (\$/1,000)	\$ 27,774.5
Combined Quantity/Quality Level (\$/capita)	\$28

DC Amount (before deductions)	Ten Year
Forecast Population	44,420
\$ per Capita	\$28
Eligible Amount	1,243,760

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**INFRASTRUCTURE COSTS COVERED IN THE DC CALCULATION**  
**MUNICIPALITY: Region of Niagara**

**SERVICE: Police**

Prj. No.	Increased Service Needs Attributable to Anticipated Development 2012-2021	Timing	Gross Capital Cost Est.	Ineligible re: Level of Service	Eligible Increase in Need	Less:		Sub Total	Less: Other (e.g. 10% Statutory Deduction)	Potential DC Recoverable Cost		
						Benefit to Existing Development/ U.E.C. <sup>1</sup>	Grants, Subsidies & Other Contributions Attrib. to New Development			Net Costs Benefiting New Development	Residential Share 68%	Non-Residential Share 32%
	<b>Already Constructed</b>											
	<b>Cost to be Incurred During Term of Proposed By-law</b>											
	New Headquarters/Niagara Falls Station (expansion component only)	2013-2015	18,282,720	10,153,860	8,128,860	406,443	-	7,722,417	-	7,722,417	5,251,244	2,471,173
	<b>Cost to be Incurred Post By-law Term (i.e. beyond 2016)</b>											
	<b>Total Estimated Capital Cost</b>		\$ 18,282,720	\$ 10,153,860	\$ 8,128,860	\$ 406,443	-	\$ 7,722,417	-	\$ 7,722,417	\$ 5,251,244	\$ 2,471,173

<sup>1</sup> Uncommitted excess capacity and inclusive of post planning period capacity, where applicable  
 Service Level Cap: Facilities 6,885,100  
 Vehicles 1,243,760  
 Total 8,128,860

## **B-3 EMERGENCY MEDICAL SERVICES**

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## **B-3 EMERGENCY MEDICAL SERVICES**

### **B-3.1 DC Planning Calculation Period**

2012-2021

### **B-3.2 Service Coverage and Capital Program**

The Region's recently completed Accommodation study proposes a new model for future service delivery involving the creation of a central reporting hub with three satellite hubs and a network of posts. This will involve the construction of six new facilities including a 20 bay central reporting hub in Niagara-on-the-Lake and a satellite reporting hub in Fort Erie as well as five new posts. Further, three existing stations will be expanded to create additional bays. It is also planned that seven existing stations will be closed, resulting in the loss of 12 bays although the overall program provides for an increase in the number of bays from 36 to 66.

The capital program included in the DC study focuses on the creation of two new satellite hubs in Grimsby and Welland.

In addition, 10 additional ambulances will be acquired.

### **B-3.2 Level of Service**

At the end of 2011, the Region's EMS was operating out of nineteen locations with a total floor area of 51,079 sq.ft. The average value of the floor space was determined based on the 2008 figures indexed to 2012 values.

EMS vehicles with a useful life of 7 years or more are also included in the service level calculation. Ambulance and supervisor vehicles, which are replaced after approximately 4.5 years, are considered to be eligible, as these vehicles have a useful life of 7 years or more, based on one shift per day usage, which is the normal basis for determining use. These vehicles are actually used virtually "24/7" and as a result, are used for the equivalent of seven years or more. At the end of 2011, the Region's inventory included 48 eligible vehicles with an average per vehicle value of \$182,509.

### **B-3.3 Benefit to Existing Development**

The benefit to existing development has been assessed as 5% for additional ambulances, as they are required almost exclusively for additional calls; however, by placing these vehicles in new or relocated stations, they may provide a marginally improved level of service to the general area in which they are located. A 10% deduction has been made for the hubs, as these are likely to produce some operating efficiencies as a result of the change to a "hub" system.

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### **B-3.4 Grants, Subsidies and Other Contributions**

No grants, subsidies or other contributions are anticipated for the items included in the DC calculation.

### **B-3.5 10% Statutory Deduction**

Pursuant to s.s.5(1)8 of the DCA, a 10% deduction is applicable to this service.

### **B-3.6 Residential vs. Non-residential Allocation**

The allocation of any DC recoverable costs for this service between residential and non-residential development is typically based on the ratio of forecast growth in Niagara for these two types of developments. Population has been weighted at three times employment to reflect the higher use of this service by residents as compared to employees based on additional time spent in the Region and age-related requirements:

$$\frac{44,420 \text{ additional pop.} \times 3}{(44,420 \text{ population} \times 3) + 20,578 \text{ employment}} = 87\% \text{ residential share and } 13\% \text{ non-residential share}$$

Niagara Region  
2012 Development Charges Background Study

SERVICE: EMERGENCY MEDICAL SERVICES (VEHICLES)

Level of Service Calculation Sheet

Contact:  
Unit Measure: # of Equipped Vehicles

Description	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	(2012 \$/vehicle)	Weighted Average	
												# of veh.	Cost
Ambulance-Crestline			14	14	15	16	16	13	12	12	200,000	59	11,800,000
Ambulance Demers	26	26	16	16	17	19	19	24	25	25	200,000	170	34,000,000
ESUB-Super Duty Ford	1	1	1	1	1	1	1	1	1	1	80,000	8	640,000
Expeditions -Supervisors			2	2	2	2	3	4	5	5	115,000	8	920,000
F150-Pick-Up			1	1	1	1	1	1	1	1	95,000	4	380,000
ESU-Bus	1	1	1	1	1	1	1	1	1	-	200,000	7	1,400,000
Stock Vehicle -E350	1	1	1	1	1	1	1	1	1	1	45,000	7	315,000
CBRN Vehicle-F350			1	1	1	1	1	1	1	1	70,000	4	280,000
Gator	1	1	1	1	1	1	1	1	1	1	15,000	6	90,000
ERU	3	4						1	1	1	75,000		
<b>Total</b>	<b>33</b>	<b>34</b>	<b>38</b>	<b>38</b>	<b>40</b>	<b>43</b>	<b>45</b>	<b>48</b>	<b>49</b>	<b>48</b>		<b>273</b>	<b>49,825,000</b>
													<b>\$ 182,509</b>

Population	412,973	415,911	419,972	424,373	427,421	431,831	435,935	439,886	443,141	447,334
Service Level Per 1,000 persons	0.0799	0.0817	0.0905	0.0895	0.0936	0.0996	0.1032	0.1091	0.1106	0.1073

10 Year Average	2002-2011
Quantity per 1,000 persons	0.0965
Quality (\$/vehicle)	\$182,509
Combined Quantity/Quality Level (\$/1,000)	\$ 17,613.3
Combined Quantity/Quality Level (\$/capita)	\$ 17.6

**NOTE: Radio equipment in the vehicles is owned by the Province and is not the funding responsibility of the Region. This equipment has not been included in the cost of the vehicles.**

DC Amount (before deductions)	Ten Year
Forecast Population	44,420
\$ per Capita	\$ 17.6
Eligible Amount	781,792

H:\Niagara\2012 DC\[Niagara 2012.xlsx]EMS Vehicles



Niagara Region  
2012 Development Charges Background Study  
Level of Service Calculation Sheet

## SERVICE: EMERGENCY MEDICAL SERVICES (FACILITIES)

Contact:

Unit Measure:

Sq.ft. of station space

Description											Value
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	(2012 \$/sq.ft.)
Fort Erie Ambulance - 100 Hospital Drive - Land Lease	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	
Grimsby Ambulance -10 Iroquois Trail - Ow ned		2,607	2,607	2,607	2,607	2,607	2,607	2,607	2,607	2,607	
Niagara Falls Ambulance-5685 North St. Land Lease	7,650	7,650	7,650	7,650	7,650	7,650	7,650	7,650	7,650	7,650	
N-O-L Ambulance -176 Wellington St. Land Lease	2,184	2,184	2,184	2,184	2,184	2,184	2,184	2,184	2,184	2,184	
Pelham Ambulance - 177 HWY. 20 W. - Ow ned		2,607	2,607	2,607	2,607	2,607	2,607	2,607	2,607	2,607	
Port Colborne -42 Dolphin St. - Purchased 2007	4,291	4,291	4,291	4,291	4,291	4,291	4,291	4,291	4,291	4,291	
St. Catharines Ambulance-139 Ontario St - Ow ned	8,483	8,483	8,483	8,483	8,483	8,483	8,483	8,483	8,483	8,483	
St. Catharines Ambulance-337 Linw ell Rd - Ow ned	2,030	2,030	2,030	2,030	2,030	2,030	2,030	2,030	2,030	2,030	
Thorold Amb- 701 Allanburg Rd. - Fire Dept Lease	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	
Welland Ambulance- 580 King Street - Leased Land	5,680	5,680	5,680	5,680	5,680	5,680	5,680	5,680	5,680	5,680	
Fort Erie Ambulance -369 Gorham Rd - Ow ned					2,607	2,607	2,607	2,607	2,607	2,607	
Fort Erie Ambulance -Gilmore and Thompson rd - Ow ned											
NOTL Ambulance -Tow nline Rd - Fire Dept Lease				1,430	1,430	1,430	1,430	1,430	1,430	1,430	
St. Catharines Ambulance - Walnut Street - Fire Dept Lease		1,108	1,108	1,108	1,108	1,108	1,108	1,108	1,108	1,108	
Smithville Ambulance - 110 West St - Ow ned	2,513	2,513	2,513	2,513	2,513	2,513	2,513	2,513	2,513	2,513	
Lincoln Ambulance 3335 Talman Dr - Fire Dept Lease	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	
Welland Ambulance 18 Rose Ave - Fire dept lease	730	730	730	730	730	730	730	730	730	730	
Niagara Falls Ambulance- 2722 St Paul Ave - Lease						975	975	975	975	975	
Skylon Tow er							240	240	240	240	
Moveable Storage Space									480	480	
<b>Total</b>	<b>39,025</b>	<b>45,347</b>	<b>45,347</b>	<b>46,777</b>	<b>49,384</b>	<b>50,359</b>	<b>50,599</b>	<b>50,599</b>	<b>51,079</b>	<b>51,079</b>	<b>279</b>

Population	412,973	415,911	419,972	424,373	427,421	431,831	435,935	439,886	443,141	447,334
Per Capita Service Level	0.0945	0.1090	0.1080	0.1102	0.1155	0.1166	0.1161	0.1150	0.1153	0.1142

10 Year Average	2002-2011
Quantity per capita	0.111
Quality (\$/sq.ft.)	279
Combined Quantity/Quality Level (\$/capita)	\$ 31.0

2. The cost per sq.ft includes FFE and site servicing. It has been increased from 2008 \$ based on changes in the Construction Cost Index.

DC Amount (before deductions)	Ten Year
Forecast Population	44,420
\$ per Capita	\$ 31.0
Eligible Amount	1,377,020

H:\Niagara\2012 DC\Niagara 2012.xls\jEMS Facilities

**INFRASTRUCTURE COSTS COVERED IN THE DC CALCULATION**  
**MUNICIPALITY: Region of Niagara**

**SERVICE: Emergency Medical Service**

Prj. No.	Increased Service Needs Attributable to Anticipated Development 2012-2021	Timing	Gross Capital Cost Est.	Ineligible re: Level of Service	Eligible Increase in Need	Less:		Sub Total	Less: Other (e.g. 10% Statutory Deduction)	Potential DC Recoverable Cost		
						Benefit to Existing Development/ U.E.C. <sup>1</sup>	Grants, Subsidies & Other Contributions Attrib. to New Development			Net Costs Benefiting New Development	Residential Share 87%	Non-Residential Share 13%
	<b>Already Constructed</b>											
	<b>Cost to be Incurred During Term of Proposed By-law</b>											
	Purchase of 5 additional ambulances	2012-2016	1,000,000	640,198	359,802	17,990	-	341,812	34,181	307,631	267,639	39,992
	Two Satellite Hubs (Grimsby and Welland)	2012-2014	4,000,000	2,560,792	1,439,208	143,921	-	1,295,287	129,529	1,165,758	1,014,210	151,549
	<b>Cost to be Incurred Post By-law Term (i.e. beyond 2016)</b>											
	Purchase of 5 additional ambulances	2017-2021	1,000,000	640,198	359,802	17,990	-	341,812	34,181	307,631	267,639	39,992
	<b>Total Estimated Capital Cost</b>		<b>\$ 6,000,000</b>	<b>\$ 3,841,188</b>	<b>\$ 2,158,812</b>	<b>\$ 179,901</b>	<b>\$ -</b>	<b>\$ 1,978,911</b>	<b>\$ 197,891</b>	<b>\$ 1,781,020</b>	<b>\$ 1,549,487</b>	<b>\$ 231,533</b>

<sup>1</sup> Uncommitted excess capacity and inclusive of post planning period capacity, where applicable  
 Service Level Cap: Facilities 1,377,020  
 Vehicles 781,792  
 Total 2,158,812

## **B-4 ROADS**

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## **B-4 ROADS**

### **B-4.1 DC Calculation Planning Period**

2012-2021, based on the availability of a 10 year capital forecast.

### **B-4.2 Service Coverage and Capital Program**

Coverage:

Niagara Region is responsible for the planning, design, operation and maintenance of the Regional Road Network. The Regional Road Network connects both rural and urban centres to each other as well as to the Provincial Highway System.

Capital Program:

The capital program for roads includes only projects that are in whole or in part related to growth. In addition, the Post Period Capacity (PPC) share of projects already constructed for which DC funding has not yet been applied is included in 2012 \$.

### **B-4.3 Local Service and Developer Contribution Policy**

The Region's Local Service policy regarding Roads is documented in Appendix D

### **B-4.4 Level of Service Measurement**

The quantity level of service for roads has been measured in terms of average number of lane kms of Regional roadway per capita. On average, over the past ten years, the Region has maintained 0.0038 lane kms of roads per capita. Based on the forecast net population increase of 44,420 over the next ten years, the Region would need to add 169 lane kms to maintain the historic average level of service. The capital program included in the development charge calculation will result in the addition of approximately 144 lane kms to the Region's network. Thus, the proposed program does not exceed the Region's historic level of service as measured in lane kms.

The quality level of service for road relates to benchmark cost standards and engineering requirements which are basically unchanged over the past decade (beyond inflationary cost increases).

### **B-4.5 Benefit to Existing Development Deduction**

Four categories of road improvement are considered for determining the benefit to existing development versus growth. These categories are:

1. Capacity Improvements (Road Widening & New Alignments);
2. Intersection Improvements (Addition of Turning Lanes, Roundabouts, & Traffic Signals);
3. Road Rehabilitation (Reconstructing an Existing Road with No Lane Expansion);
4. Structure Rehabilitation (reconstruction of existing bridges and related structures).

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The Roads Resurfacing Program and other maintenance-related annual programs will be funded entirely from existing development. There will be no costs charged to growth, even though the projects may provide a minor capacity increase and the need for resurfacing may have been accelerated by the heavy truck usage required to service development sites.

### **1. Capacity Improvements**

Projects which add capacity to the network (system expansion projects; new turning lanes; road widening) are considered for the most part to be growth related since the level of service in the network measured in terms of lane km/capita after undertaking these projects will be lower than the historic average service level.

A non-growth or benefit to existing share of 15% has been identified for capacity projects, based on the estimated cost of resurfacing the existing segment in cases of road widening, or the marginal road use benefit to existing users in the case of new road sections. It is noted that, on average, only approximately 50% of the cost of resurfacing existing lanes represents a benefit to existing development because of the loss of existing useful life involved.

### **2. Intersection Improvements**

Traffic signal installation and intersection improvements associated with projects which add capacity to the road network are deemed to be 100% growth related.

For intersection improvements where the reconstruction or widening of existing intersections is required to accommodate growth, a non-growth (or benefit to existing) share of 50% has been assigned.

### **3. Road Rehabilitation**

Where an existing road undergoes a major reconstruction, but without any expansion of lanes, a portion of costs has been allocated to growth related to the increase in the capacity created. A capacity increase will arise from improvements in the alignment and road configuration (such as turning lanes added or lengthened), as they allow more traffic to be handled by the road.

A road reconstruction may also be required by acceleration in damage to the infrastructure due to the volumes of heavy vehicles using existing roads to access residential, industrial and commercial development sites. Examples include aggregate haulers damaging existing road beds.

For reconstruction of existing roads, growth will be allocated for 0%, 10%, 25%, or 40% of costs, depending on the degree to which capacity is increased; intersections are improved; and heavy vehicles have accelerated deterioration of the road sub base.

The following criteria define each road rehabilitation category:

<b>Charge to Growth</b>	<b>Criteria for Cost Allocation to Growth</b>
0%	<ul style="list-style-type: none"> <li>• No capacity improvement through realignment/geometrics</li> <li>• No intersection improvements</li> <li>• Not a common route for heavy trucks serving new development</li> </ul>
10%	<ul style="list-style-type: none"> <li>• Capacity increase &lt;10%</li> <li>• Intersection improvement account for 5% of project value</li> <li>• Occasional use by heavy trucks serving new development</li> </ul>
25%	<ul style="list-style-type: none"> <li>• Capacity increase of 10-50%</li> <li>• Intersection improvements account for 5-10% of project costs</li> <li>• Common use by heavy trucks serving new development</li> </ul>
40%	<ul style="list-style-type: none"> <li>• Capacity increase &gt;50%</li> <li>• Intersection improvements &gt; 10% of project cost</li> <li>• Frequent use by heavy trucks serving new development</li> </ul>

As an example, a road reconstruction of a two lane rural road could result in improvements to shoulder widths, sight distances (due to adjustments to the horizontal and/or vertical alignment) and riding surface. All these elements contribute to better traffic flow (i.e. more traffic “throughput” as travel speed would improve due to better driver comfort resulting from better visibility and road geometrics), resulting in an increase in capacity.

#### **4. Structure Rehabilitation**

For bridge or culvert reconstruction projects, growth will be allocated as indicated, for the following types of project:

- Rehab / Replace to Existing Width = 0%
- Rehab / Replace from 2 to 3 lanes or a wider cross-section to allow for greater trip capacity = 25%
- Rehab / Replace for 2 to 4 lanes = 50%
- New Structure or Widening for System Expansion = 100%

#### **5. Already Constructed**

No deduction is made for BTE for already constructed projects as the gross costs shown are the DC recoverable share still to be funded.

### **B-4.6 Post Period/Excess Capacity Deduction (PPC)**

As the capital program for roads encompasses a ten year rather than build out period, a deduction for post period capacity is appropriate for projects that are specifically oversized to accommodate development beyond the ten year period. This cost component will be recovered via future development charge collections. A PPC deduction percentage of 25% has been

applied to all capacity improvement projects, as well as structure rehabilitation projects that are scheduled to be undertaken within the second half of the ten-year period, including projects that are initiated in the first half but not completed until the second half. It is noted that a number of the projects involved have not been specifically oversized to provide for needs post 2021 and require no deduction for this purpose.

Consistent with the 2009 DC study, no deduction for post period capacity has been made for intersection improvements and road rehabilitation projects.

#### **B-4.7 Provision for Grants, Subsidies and Other Contributions**

The Region anticipates receiving funding from local municipalities or the Provincial Government for a number of projects. In addition, developer contributions are anticipated for some projects. The portion of the contribution attributed to growth has been deducted from the growth share. This is shown in the column "Grants, Subsidies and Other Contributions."

#### **B-4.8 10% Statutory Deduction**

Not applicable.

#### **B-4.9 Use of Existing Reserve Funds**

The December 31, 2011 uncommitted DC reserve fund balance has been netted in making the DC calculation for roads.

#### **B-4.10 Residential vs. Non-Residential Split**

The net growth related costs have been allocated between residential and non-residential development based on share of the population as a percentage of population and employment.

For the purposes of this DC calculation, it is assumed that over the next decade, the Region's population will increase by 44,420 persons and its workforce by 20,578 persons. Thus, the residential:non-residential allocation has been calculated as:

$$\frac{44,420 \text{ additional persons}}{44,420 \text{ persons} + 20,578 \text{ additional employees}} = \begin{array}{l} 68\% \text{ residential and} \\ 32\% \text{ non-residential} \end{array}$$

#### **B-4.11 Area-Specific Cost Allocation**

The growth-related costs have been calculated on a Region wide basis given that they form part of an integrated, Region-wide transportation system.

**SERVICE: ARTERIAL AND COLLECTOR ROADS**

**Niagara Region  
2012 Development Charges Background Study  
Level of Service Calculation Sheet**

Unit Measure: lane kms of roadways

Description										
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Regional Roads	1,635	1,640	1,641	1,645	1,646	1,647	1,657	1,657	1,659	1,661
<b>Total</b>	<b>1,635</b>	<b>1,640</b>	<b>1,641</b>	<b>1,645</b>	<b>1,646</b>	<b>1,647</b>	<b>1,657</b>	<b>1,657</b>	<b>1,659</b>	<b>1,661</b>

Population	412,973	415,911	419,972	424,373	427,421	431,831	435,935	439,886	443,141	447,334
Per Capita Service Level	0.0040	0.0039	0.0039	0.0039	0.0039	0.0038	0.0038	0.0038	0.0037	0.0037

10 Year Average	2002-2011
Lane kms per capita	0.0038

DC Amount (before deductions)	Ten Year
Forecast Population	44,420
Eligible Amount (lane kms)	169

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Niagara Region  
 2012 DC By-Law Update  
 Road Capital Program - Growth-related Projects

Name	Location	Munic.	Description	Anticipated Timing	Gross Capital Cost 2012-2021	Less:				Potential DC Recoverable Cost				
						Benefit to Existing Development		Post Period Capacity		Grants, Subsidies & Other Contributions Attrib. to New Development	Total Deductions	Net Costs Benefiting New Development	Residential Share 68%	Non-Residential Share 32%
						\$	%	\$	%					
<b>Already Constructed</b>														
Fourth Ave	Third St to Vansickle			<2012	\$ 2,488,481						\$ -	\$ 2,488,481	\$ 1,692,167	\$ 796,314
Thorold Stone Rd	Stanley Ave to Victoria			<2012	\$ 2,025,916						\$ -	\$ 2,025,916	\$ 1,377,623	\$ 648,293
Old Hwy 20	Station St to Hwy 406			<2012	\$ 3,546,807						\$ -	\$ 3,546,807	\$ 2,411,829	\$ 1,134,978
Woodlawn Rd	Gram Rd to Rice Rd.			<2012	\$ 1,072,785						\$ -	\$ 1,072,785	\$ 729,494	\$ 343,291
Hwy 406	New Interchange at First/Third			<2012	\$ 161,210						\$ -	\$ 161,210	\$ 109,623	\$ 51,587
Sub-total					\$ 9,295,199	-		-			-	\$ 9,295,199	\$ 6,320,735	\$ 2,974,464
<b>Annual Program</b>														
Development Related Projects				2012-2021	\$ 10,000,000	-	0%	-	0%	\$ 10,000,000	\$ 10,000,000	\$ -	\$ -	\$ -
Transportation Studies				2012-2021	\$ 1,200,000	\$ -	0%	-	0%	\$ -	\$ -	\$ 1,200,000	\$ 816,000	\$ 384,000
Sub-total					\$ 11,200,000	\$ -		\$ -		\$ 10,000,000	\$ 10,000,000	\$ 1,200,000	\$ 816,000	\$ 384,000
<b>Capacity Improvement - Network Expansion</b>														
Fourth Ave.	Vansickle Rd. to Third St.	SC	Widening 2 to 4/5 lanes	2013	\$ 1,800,000	\$ 270,000	15%	\$ -	0%	\$ -	\$ 270,000	\$ 1,530,000	\$ 1,040,400	\$ 489,600
Thorold Stone Rd.	Stanley to Gale Centre	NF	New Road - 4 lane	2013	\$ 5,850,000	\$ 877,500	15%	\$ -	0%	\$ -	\$ 877,500	\$ 4,972,500	\$ 3,381,300	\$ 1,591,200
Stanley Ave.	Phase 2 - Ferry St. to Murray Hill	NF	Widening 4 to 5 lane	2015-2016	5,250,000	\$ 787,500	15%	\$ -	0%	\$ 850,000	\$ 1,637,500	\$ 3,612,500	\$ 2,456,500	\$ 1,156,000
Niagara St.	Quaker Rd to Woodlawn Rd.	We	Widening 4 to 5 lane	2012	2,700,000	\$ 405,000	15%	\$ -	0%	\$ 255,000	\$ 660,000	\$ 2,040,000	\$ 1,387,200	\$ 652,800
Rice Road	Old Hwy 20 to Thorold Road	Pe/We	Widening 2 to 4/5 lanes	2015-2016	6,850,000	\$ 1,027,500	15%	\$ -	0%	-	\$ 1,027,500	\$ 5,822,500	\$ 3,959,300	\$ 1,863,200
McLeod Rd	Phase 1 - Montrose, Pinoak to HEPC	NF	Widening 4 to 5 lane	2013	2,100,000	\$ 315,000	15%	\$ -	0%	-	\$ 315,000	\$ 1,785,000	\$ 1,213,900	\$ 571,200
McLeod Rd	Phase 2 - HEPC to Wilson Crescent	NF	Widening 4 to 5 lane	2014	2,000,000	\$ 300,000	15%	\$ -	0%	-	\$ 300,000	\$ 1,700,000	\$ 1,156,000	\$ 544,000
McLeod Rd	Phase 3 - Wilson to Stanley	NF	Widening 4 to 5 lane	2016	1,500,000	\$ 225,000	15%	\$ -	0%	-	\$ 225,000	\$ 1,275,000	\$ 867,000	\$ 406,000
South Niagara East West Arterial		R	Possible new road	2015-2017	15,000,000	\$ 2,250,000	15%	\$ 3,187,500	25%	\$ 6,768,338	\$ 12,205,838	\$ 2,794,163	\$ 1,900,031	\$ 894,132
Old Hwy 20	Phase 3 - Station Street to Rice Rd	Pe	Widening 2 to 4/5 lanes	2012	3,650,000	\$ 547,500	15%	\$ -	0%	\$ 552,500	\$ 1,100,000	\$ 2,550,000	\$ 1,734,000	\$ 816,000
Woodlawn Rd	Phase 3 - First St to Rice Rd	We	Widening 2 to 4 lane	2012	2,800,000	\$ 420,000	15%	\$ -	0%	\$ 85,000	\$ 505,000	\$ 2,295,000	\$ 1,560,600	\$ 734,400
East Main St	Hwy 140 to Moyer Rd	We	Widening 2 to 4 lane	2019	1,700,000	\$ 255,000	15%	\$ 361,250	25%	-	\$ 616,250	\$ 1,083,750	\$ 736,950	\$ 346,800
Merritt Rd	Hwy 406 to Niagara St	Th	Widening 2 to 4/5 lanes	2013-2015	1,300,000	\$ 195,000	15%	\$ -	0%	-	\$ 195,000	\$ 1,105,000	\$ 751,400	\$ 353,600
Livingstone Ave	Casablanca to Regional Rd 81	Gr	New road - 2 lane	2014-2017	4,700,000	\$ 705,000	15%	\$ 998,750	25%	-	\$ 1,703,750	\$ 2,996,250	\$ 2,037,450	\$ 958,800
Casablanca Blvd	Livingston to QEW	Gr	Widening 2 to 4/5 lanes	2013-2014	1,500,000	\$ 225,000	15%	\$ -	0%	-	\$ 225,000	\$ 1,275,000	\$ 867,000	\$ 406,000
Stanley Ave.	Marineland Pkwy to Lyons Creek Rd	NF	Widening 2 to 4 lane	2020	4,000,000	\$ 600,000	15%	\$ 850,000	25%	-	\$ 1,450,000	\$ 2,550,000	\$ 1,734,000	\$ 816,000
	0 New Escarpment Crossing	Gr/Li	New road - 3 lane	2012-2021	8,000,000	\$ 1,200,000	15%	\$ 1,700,000	25%	-	\$ 2,900,000	\$ 5,100,000	\$ 3,468,000	\$ 1,632,000
West St. Catharines Arterial Road Improvements		SC		2015-2016	2,500,000	\$ 375,000	15%	\$ -	0%	-	\$ 375,000	\$ 2,125,000	\$ 1,445,000	\$ 680,000
West St. Catharines Arterial Road Improvements		SC		2017-2019	9,000,000	\$ 1,350,000	15%	\$ 1,912,500	25%	-	\$ 3,262,500	\$ 5,737,500	\$ 3,901,500	\$ 1,836,000
Hwy 406	Interchange at First / Third	SC	New interchange	2012-2014	16,000,000	\$ 2,400,000	15%	\$ -	0%	-	\$ 2,400,000	\$ 13,600,000	\$ 9,248,000	\$ 4,352,000
NOTL Transportation Study Improvements		NOTL		2015-2016	5,000,000	\$ 750,000	15%	\$ -	0%	-	\$ 750,000	\$ 4,250,000	\$ 2,890,000	\$ 1,360,000
NOTL Transportation Study Improvements		NOTL		2017-2021	15,000,000	\$ 2,250,000	15%	\$ 3,187,500	25%	-	\$ 5,437,500	\$ 9,562,500	\$ 6,502,500	\$ 3,060,000
Glendale Ave	Interchange at QEW	NOTL	Interchange modifications	2016-2018	5,500,000	\$ 825,000	15%	\$ 1,168,750	25%	-	\$ 1,993,750	\$ 3,506,250	\$ 2,384,250	\$ 1,122,000
Thorold Stone Rd.	Phase 2 - Gale Centre to Victoria Ave	NF	New Road - 4 Lane	2020	5,000,000	\$ 750,000	15%	\$ 1,062,500	25%	-	\$ 1,812,500	\$ 3,187,500	\$ 2,167,500	\$ 1,020,000
West St. Catharines Grade Separation (Louth St / Vansickle / First)		SC	New Grade Separation	2014-2019	9,300,000	\$ 1,395,000	15%	\$ 1,976,250	25%	-	\$ 3,371,250	\$ 5,928,750	\$ 4,031,550	\$ 1,897,200
Martindale Rd	Elderwood to QEW	SC	Possible widening	2015-2017	7,480,000	\$ 1,119,000	15%	\$ 1,585,250	25%	-	\$ 2,704,250	\$ 4,755,750	\$ 3,233,910	\$ 1,521,840
Capacity Improvements		R		2021	1,000,000	\$ 150,000	15%	\$ 212,500	25%	-	\$ 362,500	\$ 637,500	\$ 433,500	\$ 204,000
Sub-total					\$ 148,460,000	\$ 21,969,000		\$ 18,202,750		\$ 8,510,838	\$ 48,682,588	\$ 97,777,413	\$ 66,468,641	\$ 31,288,772

Niagara Region  
 2012 DC By-Law Update  
 Road Capital Program - Growth-related Projects

Name	Location	Munic.	Description	Anticipated Timing	Gross Capital Cost 2012-2021	Less:				Potential DC Recoverable Cost				
						Benefit to Existing Development		Post Period Capacity		Grants, Subsidies & Other Contributions Attrib. to New Development	Total Deductions	Net Costs Benefiting New Development	Residential Share 68%	Non-Residential Share 32%
						\$	%	\$	%					
<b>Intersection Improvement Program</b>														
Netherby	@ Stevenville	FE	C&G and left turn lanes	2015	1,190,000	\$ 595,000	50%	\$ -	0%	-	\$ 595,000	\$ 595,000	\$ 404,600	\$ 190,400
Lincoln St	@ Riverside	We	Roundabout	2019	1,450,000	\$ 725,000	50%	\$ -	0%	-	\$ 725,000	\$ 725,000	\$ 493,000	\$ 232,000
Geneva St	@ St. Paul	SC	Two way traffic reversion	2018	2,100,000	\$ 1,050,000	50%	-	0%	\$ 50,000	\$ 1,100,000	\$ 1,000,000	\$ 680,000	\$ 320,000
Thorold Stone Rd	@ Cardinal Drive	NF	New signal and turning lane	2016	1,000,000	\$ -	0%	-	0%	\$ -	\$ -	\$ 1,000,000	\$ 680,000	\$ 320,000
Lundy's Lane	@ Kalar Road	NF	Rebuild Signal & turning lanes	2013	850,000	\$ 325,000	50%	-	0%	\$ -	\$ 325,000	\$ 325,000	\$ 221,000	\$ 104,000
Intersection Improvements		R		2016-2021	16,000,000	\$ 11,250,000	75%	-	0%	\$ -	\$ 11,250,000	\$ 3,750,000	\$ 2,550,000	\$ 1,200,000
St. Paul Street West	@ Vansickle Road and First Street Louth	SC	Turning lanes and signal	2012	2,000,000	\$ 1,000,000	50%	-	0%	\$ -	\$ 1,000,000	\$ 1,000,000	\$ 680,000	\$ 320,000
Killaly Street	@ Mellanby Avenue	PC	Development - Intersection Impr	2013	400,000	\$ 200,000	50%	-	0%	\$ -	\$ 200,000	\$ 200,000	\$ 136,000	\$ 64,000
Woodlawn Road	@ Hwy 406	We	Illumination - MTO Cost Sharing	2013	810,000	\$ 405,000	50%	-	0%	\$ -	\$ 405,000	\$ 405,000	\$ 275,400	\$ 129,600
Niagara Stone Rd	@ Hunter Road	NOTL	Turning lanes and signal	2012	400,000	\$ 100,000	25%	-	0%	\$ 100,000	\$ 200,000	\$ 200,000	\$ 136,000	\$ 64,000
<b>Sub-total</b>					<b>\$ 25,000,000</b>	<b>\$ 16,650,000</b>		<b>\$ -</b>		<b>\$ 150,000</b>	<b>\$ 16,800,000</b>	<b>\$ 9,200,000</b>	<b>\$ 6,266,000</b>	<b>\$ 2,944,000</b>
<b>Roads Rehabilitation Program</b>														
Old Hwy. 8	Vinehaven Trail to 23rd Street	Li	Reconstruction/ streetscaping	2016-2017	3,800,000	\$ 2,280,000	60%	\$ -	0%	\$ 640,000	\$ 2,920,000	\$ 880,000	\$ 598,400	\$ 281,600
Mountain Rd	Hill Side to King St	Li	Reconstruction - urban-2 lane	2014	3,200,000	\$ 2,880,000	90%	-	0%	\$ 165,000	\$ 3,045,000	\$ 155,000	\$ 105,400	\$ 49,600
Louth Street	Between RR 81 (St. Paul W) & Crestcomb	SC	Reconstruction - urban-2 lane / 4	2015	2,820,000	\$ 1,892,000	60%	-	0%	\$ 288,000	\$ 1,980,000	\$ 840,000	\$ 571,200	\$ 268,800
Mountain Road	Phase 3 Kalar to Dorchester	NF	Reconstruction - urban-2 lane	2012	2,200,000	\$ 1,650,000	75%	-	0%	\$ 50,000	\$ 1,700,000	\$ 500,000	\$ 340,000	\$ 160,000
Niagara St	Vine to Carlton	SC	Reconstruction - urban-2 lane	2012-2013	6,570,000	\$ 3,942,000	60%	-	0%	\$ 720,000	\$ 4,662,000	\$ 1,908,000	\$ 1,297,440	\$ 610,560
Glendale Ave	Jacobsen Ave to Hwy 406	SC	Turning lane	2013	2,350,000	\$ 1,410,000	60%	-	0%	\$ 240,000	\$ 1,650,000	\$ 700,000	\$ 476,000	\$ 224,000
Lakeshore Rd Phase 1	Geneva to Bradmon Drive	SC	Reconstruction - urban-2 lane	2012	6,300,000	\$ 3,780,000	60%	-	0%	\$ 620,000	\$ 4,400,000	\$ 1,900,000	\$ 1,292,000	\$ 608,000
Lakeshore Rd Phase 2	Lakeport to Lake Street	SC	Reconstruction - urban-2 lane	2012-2014	4,450,000	\$ 2,670,000	60%	-	0%	\$ 880,000	\$ 3,550,000	\$ 900,000	\$ 612,000	\$ 288,000
Lakeshore Rd Phase 3	Lake St to Geneva & Bradmon Dr to O'Ma	SC	Reconstruction - urban-2 lane	2013-2015	5,200,000	\$ 3,120,000	60%	-	0%	\$ 680,000	\$ 3,800,000	\$ 1,400,000	\$ 952,000	\$ 448,000
Old Hwy 20	Lookout to Haist	Pe	Reconstruction - rural-2 lane	2014	2,860,000	\$ 1,995,000	75%	-	0%	\$ -	\$ 1,995,000	\$ 685,000	\$ 452,200	\$ 212,800
Lakeshore Rd	Creek Rd to Shakespeare	NOTL	Rehabilitation c/w bike lanes	2015-2016	4,050,000	\$ 3,645,000	90%	-	0%	\$ -	\$ 3,645,000	\$ 405,000	\$ 275,400	\$ 129,600
Pelham Road Phase 2	Effingham Rd to Wessel Drive	SC	Reconstruction	2014	2,000,000	\$ 1,800,000	90%	-	0%	\$ -	\$ 1,800,000	\$ 200,000	\$ 136,000	\$ 64,000
Pelham Road Phase 3	Wessell Drive to Centre	Li	Reconstruction	2014	2,000,000	\$ 1,800,000	90%	-	0%	\$ -	\$ 1,800,000	\$ 200,000	\$ 136,000	\$ 64,000
Pelham Road Phase 4	Centre to 8th	Li	Reconstruction	2018	2,000,000	\$ 1,800,000	90%	-	0%	\$ -	\$ 1,800,000	\$ 200,000	\$ 136,000	\$ 64,000
Killaly Steet West	King Street to Steele Street	PC	Reconstruction - Urban - 2 Lane	2013	3,850,000	\$ 3,465,000	90%	-	0%	\$ 145,000	\$ 3,610,000	\$ 240,000	\$ 163,200	\$ 76,800
Stanley Avenue	Whirlpool Road to Valley Way	NF	Reconstruction - Urban - 2 Lane	2012-2014	7,371,340	\$ 5,528,505	75%	-	0%	\$ 300,000	\$ 5,828,505	\$ 1,542,835	\$ 1,049,128	\$ 493,707
Canborough Road	Townline Rd to Regional Road 20	WL	Reconstruction - Urban - 2 Lane	2012	1,100,000	\$ 990,000	90%	-	0%	\$ 20,000	\$ 1,010,000	\$ 90,000	\$ 61,200	\$ 28,800
Main Street	Phase 2 Third St to Henley	SC	Reconstruction - urban	2013	2,650,000	\$ 2,385,000	90%	-	0%	\$ 65,000	\$ 2,450,000	\$ 200,000	\$ 138,000	\$ 64,000
<b>Sub-total</b>					<b>\$ 64,571,340</b>	<b>\$ 46,832,505</b>		<b>\$ -</b>		<b>\$ 4,813,000</b>	<b>\$ 51,645,505</b>	<b>\$ 12,925,835</b>	<b>\$ 8,789,568</b>	<b>\$ 4,136,267</b>
<b>Structure Rehabilitation Program</b>														
MTO Cost Sharing	QEW through St. Catharines	SC	New MTO structures	2012	4,200,000	\$ 2,100,000	50%	-	0%	-	\$ 2,100,000	\$ 2,100,000	\$ 1,428,000	\$ 672,000
New Burgoyne Bridge	Str. 081220 Over Hwy 406 & 12 Mile Cree	SC	Rehabilitation/ replacement	2012-2015	55,000,000	\$ 41,250,000	75%	-	0%	\$ 9,083,500	\$ 50,333,500	\$ 4,666,500	\$ 3,173,220	\$ 1,493,280
Oswego Creek Bridge	Str. 045205 Over Oswego Creek	Wa	Bridge replacement	2013-2016	2,200,000	\$ 1,100,000	50%	-	0%	-	\$ 1,100,000	\$ 1,100,000	\$ 748,000	\$ 352,000
Bowen Rd	@ QEW	FE	Cost sharing with MTO	2014	1,900,000	\$ 950,000	50%	-	0%	-	\$ 950,000	\$ 950,000	\$ 646,000	\$ 304,000
Martindale Rd	Bridge widening over Hwy 406	SC	New structure / Widening	2016	3,000,000	\$ -	0%	-	0%	-	\$ -	\$ 3,000,000	\$ 2,040,000	\$ 960,000
Glendale Ave	Grade Separation at CNR	SC	New structure	2018-2020	9,000,000	\$ -	0%	2,250,000	25%	-	\$ 2,250,000	\$ 6,750,000	\$ 4,590,000	\$ 2,160,000
<b>Sub-total</b>					<b>\$ 75,300,000</b>	<b>\$ 45,400,000</b>		<b>\$ 2,250,000</b>		<b>\$ 9,083,500</b>	<b>\$ 56,733,500</b>	<b>\$ 18,566,500</b>	<b>\$ 12,625,220</b>	<b>\$ 5,941,280</b>
<b>Total for Projects</b>					<b>\$ 331,826,539</b>	<b>\$ 129,851,505</b>		<b>\$ 20,452,760</b>		<b>\$ 32,657,338</b>	<b>\$ 182,861,593</b>	<b>\$ 148,964,946</b>	<b>\$ 101,296,164</b>	<b>\$ 47,668,783</b>

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**B-5 WATER**

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## **B-5 WATER**

### **B-5.1 DC Calculation Planning Period**

2012-2031

### **B-5.2 Service Coverage and Capital Program**

Coverage:

The Region of Niagara is responsible for water treatment, transmission mains, storage facilities and booster pumping stations.

Capital Program:

The capital program, which covers the period 2012-2031, is comprised of:

1. Growth related works from the Region's 2011 Water and Wastewater Master Servicing Plan;
2. Coverage of outstanding DC credits for works previously emplaced by developers.
3. The PPC share of projects from the 2009 DC study that have now been constructed. At the time that the 2009 study was completed, the post period time frame generally included the period from mid-2018 and beyond. As that time period is now being fully incorporated into the 2012 DC calculation period, the full post period capacity amount can be recovered over the forecast growth. This includes works identified in the 2009 DC Background Study as already constructed for which a 2014 and beyond PPC share was identified and has not yet been funded from DC reserves. These works were first included in the 2004 DC Study which had a DC recoverable period of 2004-2014.
4. Post period capacity projects from previous development charge studies (i.e. 1999) that have not yet been fully DC-funded and for which capacity still exists for use by future growth.
5. Other growth-related capital works in the Region's capital budget and forecast that are not included in the Master Servicing Plan.

### **B-5.3 Local Service and Developer Contribution Policy**

The Region's local service policy for water projects is documented in Appendix D and indicates the type of works to be funded directly by subdividers.

### **B-5.4 Level of Service Measurement**

The provision of potable water within the Region is governed by Provincial regulations and sound engineering practice. Further detail regarding the Region's design criteria is provided in Niagara's 2011 Master Servicing Plan (Table ES.5).

## B-5.5 Benefit to Existing Development Deduction (BTE)

The benefit to existing development deductions for water are summarized in the following table. No BTE deductions are applicable for credits or recovery of the PPC share of already constructed projects, as these shares are already net of BTE, etc.

Growth-related Categories Project Type	BTE <sup>1</sup>			
	1 - Existing issue	2 - Significant benefits to existing as well as to growth	3 - Growth-driven but includes some benefit to existing	4 - Growth-driven with no benefit to existing
A - Increase Supply Capacity				0% - project cost is almost entirely the incremental cost of oversizing project for growth to 2031, therefore limited or no benefit to existing (W3)
B - Increase Pumping Station Capacity		75% - project is driven by operational or condition issues (W2)	10% - project is driven by growth but is likely to include some upgrades related to age/condition of existing equipment (W5, W7)	
C - Increase Storage Volume		50% - existing storage deficiency (W8, W9)		
D - Security of Supply		50% - existing security of supply issue, however growth will also benefit (W1, W4, W6, W10)		
E - Decommissioning of Storage		70% - operational issue. Significant benefit to existing (W11, W12, W13)		

<sup>1</sup> Considering flow to and beyond 2031 and existing deficiency circumstances.

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## B-5.6 Post Period/Excess Capacity Deduction

Deductions are made for post 2031 servicing capacity where explicit oversizing is provided for. The following table sets out the rationale for determining the deductions. The percentages shown are applied to the total project cost. No deduction is applicable for already-constructed (but not fully DC-funded) projects, as the recovery period now extends to 2031.

Water Categories Project Type	POST PERIOD <sup>1</sup>		
	1 - Project to resolve existing issue; no oversizing	2 - Sized for 2031	3 - Oversized for post-2031
A - Increase Supply Capacity		0% - project is sized for 2031 demands (W3)	NA
B - Increase Pumping Station Capacity	0% - project will address existing issue (W2)		10% - project is oversized for post-2031 demands; 10% represents marginal cost of this oversizing (W5, W7).
C - Increase Storage Volume			10% - project is oversized for post-2031 demands; 10% represents marginal cost of this oversizing (W8, W9).
D - Security of Supply	0% - project will address existing security of supply issue	0% - project will address existing security of supply issue; sized for 2031 demands (W1, W4, W6, W10)	
E - Decommissioning of Storage	0% - project will address existing operational issue (W11, W12, W13)		

<sup>1</sup> Considering flow to and beyond 2031 and existing deficiency circumstances.

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## B-5.7 Provision for Grants, Subsidies and Other Contributions

No grants, subsidies or other contributions are anticipated for any of the Master Servicing Plan projects. The gross cost shown for credits and previously constructed works are already net of any grant or contribution received.

## B-5.8 10% Statutory Deduction

Not applicable.

## B-5.9 Use of Existing Reserve Funds

The December 31, 2011 uncommitted DC reserve fund balance has been netted in making the DC calculation for water works.

### **B-5.10 Residential vs. Non-Residential Split**

Based on the incremental population and employment forecast 2012 to 2031 for the Region in the case of Region-wide works and individual service area in the case of area-specific works including the Masterplan projects credits and recovery of the PPC share of already completed works.

## Region of Niagara - Area-Specific Development-Related Water Projects

Project ID	Description	Timing	System	2012 \$ Est. Cost	Benefit to Existing Development	Beyond 2031 Oversize	Grants & Contributions	DC Recoverable 2012-31	Residential Share	Non-residential Share
W1	Increase storage capacity at Stevensville Reservoir	TBD	Fort Erie	9,460,000	4,730,000	0		4,730,000	3,195,279	1,534,721
W2	Increase firm capacity of Stevensville pumping station	TBD	Fort Erie	345,000	258,750	0		86,250	58,265	27,985
W12	Decommission Crescent Park elevated tank	TBD	Fort Erie	375,000	262,500	0		112,500	75,998	36,502
W13	Decommission Ridgeway Standpipe		Fort Erie	375,000	262,500	0		112,500	75,998	36,502
	<b>Fort Erie Sub-total</b>			<b>10,555,000</b>	<b>5,513,750</b>	<b>0</b>	<b>0</b>	<b>5,041,250</b>	<b>3,405,539</b>	<b>1,635,711</b>
<b>W3</b>	<b>Increase capacity of raw water supply at Decew WTP</b>	<b>2017</b>	<b>Decew</b>	<b>7,620,000</b>	<b>0</b>	<b>0</b>		<b>7,620,000</b>	<b>4,711,025</b>	<b>2,908,975</b>
W4	Address security of supply issue in Fenwick	TBD	Welland	7,960,000	3,980,000	0		3,980,000	3,174,164	805,836
W5	Increase firm capacity of Shoalts pumping station No. 2	2027	Welland	375,000	37,500	37,500		300,000	239,259	60,741
	<b>Welland Sub-total</b>			<b>8,335,000</b>	<b>4,017,500</b>	<b>37,500</b>	<b>0</b>	<b>4,280,000</b>	<b>3,413,422</b>	<b>866,578</b>
W6	Additional floating storage at Grimsby	TBD	Grimsby	14,085,000	7,042,500	0		7,042,500	5,238,273	1,804,227
W7	Increase firm capacity of Lincoln pumping station	2021	Grimsby	155,000	15,500	15,500		124,000	92,232	31,768
	<b>Grimsby Sub-total</b>			<b>14,240,000</b>	<b>7,058,000</b>	<b>15,500</b>	<b>0</b>	<b>7,166,500</b>	<b>5,330,505</b>	<b>1,835,995</b>
W8	New elevated storage in Port Colborne	2012	Port Colborne	5,530,000	2,765,000	553,000		2,212,000	1,615,802	596,198
W9	Increase capacity of Fielden Reservoir	2012	Port Colborne	2,680,000	1,340,000	268,000		1,072,000	783,065	288,935
W10	New watermain across the Welland Canal from Fielden Reservoir to existing main at Chippawa Rd.	TBD	Port Colborne	8,570,000	4,285,000	0		4,285,000	3,130,069	1,154,931
W11	Decommission King St. elevated tank	TBD	Port Colborne	375,000	262,500	0		112,500	82,178	30,322
	<b>Port Colborne Sub-total</b>			<b>17,155,000</b>	<b>8,652,500</b>	<b>821,000</b>	<b>0</b>	<b>7,681,500</b>	<b>5,611,115</b>	<b>2,070,385</b>
	<b>Niagara Falls</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Grand Total</b>			<b>57,905,000</b>	<b>25,241,750</b>	<b>874,000</b>	<b>0</b>	<b>31,789,250</b>	<b>22,471,607</b>	<b>9,317,643</b>

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**INFRASTRUCTURE COSTS COVERED IN THE DC CALCULATION**

**SERVICE:**

**Water - Area Specific Credits and PPC Recovery**

**Region of Niagara**

Prj. No.	System	Type	Description	Timing	Gross Capital Cost Est.	Less:	Potential DC Recoverable Cost		
						Post Period Capacity	Net Costs Benefiting New Development	Residential Share	Non-Residential Share
						\$			
			<b>Already Constructed</b>						
ZCW0405	Decew	Recovery of PPC	New Watermains Decew System	<2012	1,327,663	-	1,327,663		
ZCW9709	Decew Falls	Recovery of PPC	DeCew WTP Phase 3 Upgrade	<2008	182,990	-	182,990		
ZCW0405	Decew Falls	Recovery of PPC	Loop trunk system from Eastchester to Roehampton (1.3	<2012	98,345	-	98,345		
ZCW0205	Decew Falls(# 11)	Recovery of PPC	Consolidated Storage in Vineland	<2008	744,915	-	744,915		
	Decew Falls	Recovery of PPC	Decew Falls WTP Upgrade	<2004	154,344	-	154,344		
	Decew Falls	Recovery of PPC	Water Supply Reinforcement, Niagara Falls/NOTL	<2004	122,952	-	122,952		
	<b>Subtotal</b>				<b>2,631,210</b>		<b>2,631,210</b>	<b>1,626,732</b>	<b>1,004,478</b>
	Fort Erie	Outstanding Credit	Driver Trail Estates (Fort Erie)	<2008	55,754	-	55,754		
ZCW0504	Fort Erie (#12, 13, 14)	Recovery of PPC	Eagle Street Watermain - From Stevensville to Bridge/Pettit	<2012	1,851,517	-	1,851,517		
	Fort Erie	Recovery of PPC	Treated Water Reservoir in Stevensville	<2004	889,440	-	889,440		
	Fort Erie	Recovery of PPC	Trunk Watermain - Barnard St. from Dominion to Garrison	<2004	376,704	-	376,704		
	Fort Erie	Recovery of PPC	10 ML/d expansion to the water plant and upgrades	<2004	328,775	-	328,775		
	<b>Subtotal</b>				<b>3,502,189</b>		<b>3,502,189</b>	<b>2,365,850</b>	<b>1,136,339</b>
ZCW0303	Grimsby (# 7)	Recovery of PPC	London Road Booster Station and reservoir	<2008	4,117,570	-	4,117,570		
ZCW0303	Grimsby (#9)	Recovery of PPC	Watermain from Park Road Booster Station to new London	<2008	3,345,970	-	3,345,970		
	Grimsby	Recovery of PPC	Grimsby WTP Expansion	<2004	1,308,000	-	1,308,000		
	<b>Subtotal</b>				<b>8,771,540</b>		<b>8,771,540</b>	<b>6,524,348</b>	<b>2,247,192</b>
ZCW9504	Niagara Falls (#7)	Recovery of PPC	Niagara Falls WTP Upgrade and reservoir expansion	<2008	194,018	-	194,018		
	Niagara Falls	Recovery of PPC	Water Supply Reinforcement, Niagara Falls/NOTL	<2004	122,952	-	122,952		
	Niagara Falls	Recovery of PPC	Trunk Watermain - St. Paul St. from Thorold Stone to	<2004	392,400	-	392,400		
	Niagara Falls	Recovery of PPC	400mm WM across Welland River at Niagara Pkwy (water	<2004	15,336	-	15,336		
	Niagara Falls	Recovery of PPC	400mm WM on Church's Lane from St. Paul Ave to Stanley	<2004	210,411	-	210,411		
	Niagara Falls	Recovery of PPC	26 ML additional system storage	<2004	398,941	-	398,941		
	<b>Subtotal</b>				<b>1,334,057</b>		<b>1,334,057</b>	<b>909,777</b>	<b>424,280</b>
	Port Colborne	Recovery of PPC	Install a 500mm x 1km watermain on King Street from the	<2012	47,741	-	47,741		
ZCW0402	Port Colborne (# 3)	Recovery of PPC	Fielden Avenue Pumping Station	<2008	79,595	-	79,595		
ZCW0203	Port Colborne (#1)	Recovery of PPC	Elizabeth Street watermain Killalily Street East to Main	<2008	28,475	-	28,475		
ZCW1002	Port Colborne (#4)	Recovery of PPC	Fielden Reservoir expansion (10ML) in lieu of tank	<2012	154,500	-	154,500		
ZCW9621	Port Colborne (#5)	Recovery of PPC	Port Colborne WTP Upgrades	<2008	15,202	-	15,202		
	Port Colborne	Recovery of PPC	Bell-Elizabeth Trunk Watermain (part of)	<2004	54,500	-	54,500		
	<b>Subtotal</b>				<b>380,012</b>		<b>380,012</b>	<b>277,588</b>	<b>102,424</b>
ZCW9814	Welland (# 8)	Recovery of PPC	Hwy 406 and Towpath Road watermain	<2008	1,727,197	-	1,727,197		
ZCW0204	Welland (#1, #4)	Recovery of PPC	Welland WTP Upgrade including new inground reservoir and	<2012	127,308	-	127,308		
	Welland	Recovery of PPC	Welland WTP Improvement	<2004	52,320	-	52,320		
	Welland	Recovery of PPC	400mm WM on Ridge Rd from Southworth to Moore	<2004	168,796	-	168,796		
	<b>Subtotal</b>				<b>2,075,621</b>		<b>2,075,621</b>	<b>1,655,367</b>	<b>420,254</b>
Total Estimated Capital Cost					\$ 18,694,629	\$ -	\$ 18,694,629	\$ 13,359,662	\$ 5,334,967

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**INFRASTRUCTURE COSTS COVERED IN THE DC CALCULATION**

**SERVICE: Water - Region Wide**

**Region of Niagara**

Project Name Increased Service Needs Attributable to Anticipated Development 2012-2031	Timing	Gross Capital Cost Est.	Less:					Potential DC Recoverable Cost			
			Benefit to Existing Development		Post Period Capacity		Grants, Subsidies & Other Contributions Attrib. to New Development	Sub Total	Net Costs Benefiting New Development	Residential Share	Non- Residential Share
			\$	%	\$	%					
<b><u>Already Constructed</u></b>											
<b><u>Costs to be Incurred During the By-Law Period</u></b>											
<b><u>Costs to be Incurred Post 2016</u></b>											
Water Master Plan Updates	2016-2031	1,200,000	120,000	10%	-		-	120,000	1,080,000	764,640	315,360
Total Estimated Capital Cost		\$ 1,200,000	\$ 120,000		\$ -		\$ -	\$ 120,000	\$ 1,080,000	\$ 764,640	\$ 315,360

Wastewater DC Recoverable Shares	Residential	Non-Residential
Masterplan	\$ 22,471,607	\$ 9,317,643
Already constructed	\$ 13,359,662	\$ 5,334,967
Region-wide	\$ 764,640	\$ 315,360
<b>Total</b>	<b>\$ 36,595,909</b>	<b>\$ 14,967,970</b>

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## **B-6 WASTEWATER**

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## **B-6 WASTEWATER**

### **B-6.1 DC Calculation Planning Period**

2012-2031

### **B-6.2 Service Coverage and Capital Program**

Coverage:

The Region of Niagara is responsible for wastewater treatment, trunk sewers and pumping stations.

Capital Program:

The capital program, which covers the period 2012-2031, is comprised of:

1. Growth related works from the Region's 2011 Water and Wastewater Master Servicing Plan;
2. Coverage of outstanding DC credits for works previously emplaced by developers.
3. The PPC share of projects from the 2009 DC study that have now been constructed. At the time that the 2009 study was completed, the post period time frame generally included the period from mid-2018 and beyond. As that time period is now being fully incorporated into the 2012 DC calculation period, the full post period capacity amount can be recovered over the forecast growth. This includes works identified in the 2009 DC Background Study as already constructed for which a 2014 and beyond PPC share was identified and have not yet been funded from DC reserves. These works were included in the 2004 DC Background Study which had a DC recoverable period of 2004-2014.
4. Post period capacity share of projects from previous development charge studies (i.e. 1999) that have not yet been fully DC-funded and for which capacity still exists for use by future growth.
5. Other growth-related capital works in the Region's capital budget and forecast that are not included in the Master Servicing Plan.

### **B-6.3 Local Service and Developer Contribution Policy**

The Region's local service policy for wastewater is documented in Appendix D and indicates the types of works to be funded directly by subdividers.

### **B-6.4 Level of Service Measurement**

The provision of wastewater services within the Region is governed by Provincial regulations and sound engineering practice. Further detail on the Region's design criteria is found in Niagara's 2011 Master Servicing Plan (Table ES-5).

## B-6.5 Benefit to Existing Development Deduction (BTE)

The benefit to existing development deductions for wastewater are summarized in the following table. No BTE deductions are applicable for credits or recovery of the PPC share of already constructed projects, as these shares are already net of BTE, etc.

Growth-related Categories Project Type	BTE <sup>1</sup>			
	1 - Existing issue	2 - Significant benefits to existing as well as to growth	3 - Growth-driven but includes some benefit to existing	4 - Growth-driven with no benefit to existing
A - Increase WWTP Capacity		65% - project is required to address existing issues as well as growth (S16)	10% - project is driven by growth but is likely to include some upgrades related to age/condition of existing equipment (S13, S20) 15% - project is driven by growth but is likely to address some existing deficiencies (S2, S15)	
B - Increase Pumping Station or Forcemain Capacity		20% - project is driven by growth but existing equipment has operational or condition issues and upgrading is timely (S3, S4)	10% - project is driven by growth but is likely to include some upgrades related to age/condition of existing equipment (S7, S8, S9, S10, S12, S14, S17, S18, S19)	
C - Pipe Replacement		60% - pipe needs replacing due to condition/age, with size upgraded to cater for growth (S5, S6)		
D - New Pipe		50% - project alleviates significant existing issues as well as caters for growth (S11)		

<sup>1</sup> Considering flow to and beyond 2031 and existing deficiency circumstances.

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## B-6.6 Post Period/Excess Capacity Deduction

Deductions are made for post 2031 servicing capacity where explicit oversizing is provided for. The following table sets out the rationale for determining the deductions. The percentages shown are applied to the total project cost. No deduction is applicable for already-constructed (but not fully DC funded) projects, as the recovery period now extends to 2031, with the exception of several recently constructed expansion projects which provide for growth post 2031.

Categories Project Type	POST PERIOD <sup>1</sup>		
	1 - Project to resolve existing issue; no oversizing	2 - Sized for 2031	3 - Oversized for post-2031
A - Increase WWTP Capacity		0% - project is sized for 2031 flows (S15, S16)	45% - project is oversized for post-2031 flows; 45% represents the marginal cost allowance for this oversizing (S2, S13, S20) <sup>2</sup>
B - Increase Pumping Station or Forcemain Capacity		0% - project is sized for 2031 flows (S7, S9, S10, S12, S14, S17, S18)	10% - project is oversized for post-2031 flows; 10% represents the marginal cost allowance for this oversizing (S3, S4, S8, S19)
C - Pipe Replacement		0% - project is sized for 2031 flows (S6)	10% - project is oversized for post-2031 flows; 10% represents the marginal cost allowance for this oversizing (S5)
D - New Pipe		0% - project is sized for 2031 flows (S11)	

<sup>1</sup> Considering flow to and beyond 2031 and existing deficiency circumstances.

<sup>2</sup> 45% applies to projects with a 10% BTE deduction. For projects with a 15% BTE, the PPC deduction is 42.5%.

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## B-6.7 Provision for Grants, Subsidies and Other Contributions

No grants, subsidies or other contributions are anticipated for any of the Master Servicing Plan projects. In the case of CSO control projects on the “Region-wide” schedule, the local municipal share has been excluded from the gross project cost.

## B-6.8 10% Statutory Deduction

Not applicable.

## B-6.9 Use of Existing Reserve Funds

The December 31, 2011 uncommitted DC reserve fund balance has been netted in making the DC calculation for wastewater works.

### **B-6.10 Residential vs. Non-Residential Split**

Based on incremental population and employment forecast 2012-2031 for the Region in the case of Region-wide works and for the individual service area in the case of area-specific works including the Master Servicing Plan projects, already constructed works and outstanding credits.

### **B-6.11 Area-Specific Cost Allocation**

A discussion of the approach to area-specific DCs is included in Appendix C.

## Region of Niagara - Development-Related Wastewater Projects

Project ID	Description	Timing	System	2012 \$ Est. Cost	Benefit to Existing Development	Beyond 2031 Oversize	Grants & Contributions	DC Recoverable 2012-31	Residential Share	Non-residential Share		
S1	Upgrade firm capacity of Roberts Rd. pumping station	2014	Baker Rd.		This project is incorporated in the CSO funding program which is being funded on a Region-wide basis							
S2	Upgrade rated capacity of Baker Rd. WWTP	TBD	Baker Rd.	19,000,000	2,850,000	8,075,000		8,075,000	5,973,580	2,101,420		
S3	Upgrade firm capacity of Smithville pumping station	2021	Baker Rd.	1,010,000	202,000	101,000		707,000	523,012	183,988		
S4	Increase capacity of Smithville forcemain	2021	Baker Rd.	12,100,000	2,420,000	1,210,000		8,470,000	6,265,786	2,204,214		
S5	Increase capacity of pipe between Park Rd. and Lake St.	2021	Baker Rd.	5,460,000	3,276,000	546,000		1,638,000	1,211,731	426,269		
S6	Increase capacity of pipes between Victoria Ave. SPS and Ontario St. SPS	2013	Baker Rd.	1,685,000	1,011,000	0		674,000	498,600	175,400		
S7	Upgrade firm capacity of Victoria Ave. pumping station	2013	Baker Rd.	670,000	67,000	0		603,000	446,077	156,923		
S8	Upgrade firm capacity of Jordan Valley pumping station	2013	Baker Rd.	730,000	73,000	73,000		584,000	432,021	151,979		
<b>Baker Road Sub-total</b>				<b>40,655,000</b>	<b>9,899,000</b>	<b>10,005,000</b>	<b>0</b>	<b>20,751,000</b>	<b>15,350,806</b>	<b>74.0%</b>	<b>5,400,194</b>	<b>26.0%</b>
S9	Upgrade firm capacity of Foss Rd. pumping station	2015	Welland	2,380,000	238,000	0		2,142,000	1,708,367	433,633		
S10	Increase capacity of Foss Rd. forcemain	2015	Welland	4,500,000	450,000	0		4,050,000	3,230,106	819,894		
S11	New wastewater pipe to Towpath line along Quaker Rd. between Pelham St. and Montgomery Rd.	2015	Welland	1,460,000	730,000	0		730,000	582,217	147,783		
S12	Upgrade firm capacity of Towpath pumping station	2015	Welland	845,000	84,500	0		760,500	606,542	153,958		
S13	Upgrade rated capacity of Welland WWTP	2022	Welland	35,300,000	3,530,000	15,885,000		15,885,000	12,669,195	3,215,805		
<b>Welland Sub-total</b>				<b>44,485,000</b>	<b>5,032,500</b>	<b>15,885,000</b>	<b>0</b>	<b>23,567,500</b>	<b>18,796,427</b>	<b>79.8%</b>	<b>4,771,073</b>	<b>20.2%</b>
S14	Upgrade firm capacity of Alliston pumping station	2019	Anger Ave.	530,000	53,000	0		477,000	272,221	57.1%	204,779	42.9%
S15	Process improvements at Port Weller WWTP	TBD	Port Weller	8,000,000	1,200,000	0		6,800,000	4,354,230	2,445,770		
S21	Add Variable Frequency Drives to Carlton St. PS	TBD	Port Weller	250,000	250,000	0		0	0	0		
<b>Port Weller Sub-total</b>				<b>8,250,000</b>	<b>1,450,000</b>	<b>0</b>	<b>0</b>	<b>6,800,000</b>	<b>4,354,230</b>	<b>64.0%</b>	<b>2,445,770</b>	<b>36.0%</b>
S16	Process improvements at Niagara Falls WWTP	TBD	Niagara Falls	40,000,000	26,000,000	0		14,000,000	9,320,486	4,679,514		
S17	Upgrade firm capacity of Grassy Brook pumping station	2020	Niagara Falls	695,000	69,500	0		625,500	416,426	209,074		
S18	Increase capacity of Grassy Brook forcemain	2020	Niagara Falls	1,815,000	181,500	0		1,633,500	1,087,501	545,999		
<b>Niagara Falls Sub-total</b>				<b>42,510,000</b>	<b>26,251,000</b>	<b>0</b>	<b>0</b>	<b>16,259,000</b>	<b>10,824,414</b>	<b>66.6%</b>	<b>5,434,586</b>	<b>33.4%</b>
S19	Upgrade firm capacity of Garrison Village pumping station	2011	NOTL	730,000	73,000	73,000		584,000	440,577	143,423		
S20	New WWTP at Niagara-on-the-lake	2016	NOTL	43,000,000	4,300,000	19,350,000		19,350,000	14,597,892	4,752,108		
<b>Niagara-on-the-lake Sub-total</b>				<b>43,730,000</b>	<b>4,373,000</b>	<b>19,423,000</b>	<b>0</b>	<b>19,934,000</b>	<b>15,038,470</b>	<b>75.4%</b>	<b>4,895,530</b>	<b>24.6%</b>
<b>Anger Avenue Subtotal</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Crystal Beach Subtotal</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Queenston Subtotal</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Port Colborne Subtotal</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Stephensville/Douglastown</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Grand Total</b>				<b>180,160,000</b>	<b>47,058,500</b>	<b>45,313,000</b>	<b>0</b>	<b>87,788,500</b>	<b>64,636,567</b>	<b>73.6%</b>	<b>23,151,933</b>	<b>26.4%</b>

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INFRASTRUCTURE COSTS COVERED IN THE DC CALCULATION

SERVICE: **Wastewater - Area Specific Credits and PPC Recovery** Region of Niagara

Prj. No.	System	Type	Description	Timing	Gross Capital Cost Est.	Potential DC Recoverable Cost					
						Less: Post Period Capacity	Net Costs Benefiting New Development	Residential Share	Non-Residential Share		
						\$					
	System	Type	<b>Already Constructed</b>								
ZSW0716	Anger Avenue	Recovery of PPC	Anger Avenue WWTP - P2 Project	<2012	218,545	-	218,545	-	-	-	
	Anger Avenue (#5)	Recovery of PPC	Frenchman's Creek Trunk Sewer - PH2	<2012	311,427	-	311,427	-	-	-	
	Anger Avenue	Recovery of PPC	Parkway PS Replacement (Fort Erie)	<2004	865,024	-	865,024	-	-	-	
	Anger Avenue	Outstanding Credit	Garrison Village (Fort Erie)	<2008	60,705	-	60,705	-	-	-	
	<b>Anger Subtotal</b>				<b>1,455,701</b>		<b>1,455,701</b>	<b>830,759</b>	<b>57.1%</b>	<b>624,942</b>	<b>42.9%</b>
ZSW0006	Baker Road	Recovery of PPC	Smithville PS Expansion (for growth in Smithville)	<2012	836,723	104,590	732,133	-	-	-	
ZSW0006	Baker Road	Recovery of PPC	Baker Road WWTP Capacity Expansion Stage 1	<2012	4,502,036	-	4,502,036	-	-	-	
ZSW0013	Baker Road (#1)	Recovery of PPC	Replace existing Smithville pumping station	<2008	147,762	-	147,762	-	-	-	
	Baker Road	Recovery of PPC	Smithville PS & Sewer (West Lincoln)	<2004	41,856	-	41,856	-	-	-	
	Baker Road	Recovery of PPC	Install Forcemain on North Service - Biggar PS to Roberts	<2004	98,254	-	98,254	-	-	-	
	Baker Road	Recovery of PPC	Gravity Trunk Sewer Along Ontario St. @ QEW Crossing	<2004	538,687	-	538,687	-	-	-	
	<b>Baker Road Subtotal</b>				<b>6,165,317</b>	<b>104,590</b>	<b>6,060,726</b>	<b>4,483,497</b>	<b>74.0%</b>	<b>1,577,230</b>	<b>26.0%</b>
ZSW0721	<b>Crystal Beach Subtotal</b>	Recovery of PPC	Crystal Beach WWTP - P2 Project	<2012	<b>218,545</b>	-	<b>218,545</b>	<b>210,968</b>	<b>96.5%</b>	<b>7,578</b>	<b>3.5%</b>
ZSW0115	Stephensville/Douglstown	Recovery of PPC	Douglstown Forcemain	<2012	744,967	-	744,967	-	-	-	
ZSW0607	Stephensville/Douglstown	Recovery of PPC	Stevensville PS capacity upgrade	<2012	163,909	-	163,909	-	-	-	
	<b>Stephensville/Douglstown Subtotal</b>				<b>908,876</b>	-	<b>908,876</b>	<b>555,622</b>	<b>61.1%</b>	<b>353,253</b>	<b>38.9%</b>
ZSW0302	Niagara Falls	Recovery of PPC	Alternative biosolids management program	<2008	698,524	-	698,524	-	-	-	
ZSW0714	Niagara Falls	Recovery of PPC	Niagara Falls WWTP - P2 project	<2012	199,313	-	199,313	-	-	-	
	Niagara Falls	Recovery of PPC	HRT facility at NF High Lift Pumping Station	<2012	349,673	-	349,673	-	-	-	
ZSW9305	Niagara Falls (#2)	Recovery of PPC	Central Avenue Pumping Station and forcemain	<2008	459,288	-	459,288	-	-	-	
	Niagara Falls	Recovery of PPC	Upgrade Niagara Falls WPCP	<2004	941,760	-	941,760	-	-	-	
	Niagara Falls	Recovery of PPC	Upgrade NF WPCP	<2004	4,025,993	-	4,025,993	-	-	-	
	<b>Niagara Falls Subtotal</b>				<b>6,674,552</b>	-	<b>6,674,552</b>	<b>4,443,576</b>	<b>66.6%</b>	<b>2,230,975</b>	<b>33.4%</b>
ZSW0807	Niagara-on-the-Lake	Recovery of PPC	Niagara-on-the-Lake WWTP Capacity Upgrade from 5.7	<2012	1,832,512	916,256	916,256	-	-	-	
	Niagara-on-the-Lake	Recovery of PPC	NOTL Sewage Treatment Facility Upgrade	<2004	177,888	-	177,888	-	-	-	
	Niagara-on-the-Lake	Recovery of PPC	William St PS and Forcemain (NOTL)	<2004	58,598	-	58,598	-	-	-	
	<b>Niagara-on-the-Lake Subtotal</b>				<b>2,068,999</b>	<b>916,256</b>	<b>1,152,743</b>	<b>869,644</b>	<b>75.4%</b>	<b>283,099</b>	<b>24.6%</b>
ZSW9816	Port Dalhousie	Recovery of PPC	Port Dalhousie WPCP optimization study and upgrades	<2008	296,077	-	296,077	-	-	-	
ZSW0712	Port Dalhousie	Recovery of PPC	Port Dalhousie WWTP - P2 Project	<2012	382,454	-	382,454	-	-	-	
	Port Dalhousie	Recovery of PPC	Port Dalhousie WPCP Upgrading	<2004	102,896	-	102,896	-	-	-	
	<b>Port Dalhousie Subtotal</b>				<b>781,428</b>	-	<b>781,428</b>	<b>415,111</b>	<b>53.1%</b>	<b>366,317</b>	<b>46.9%</b>
	Port Weller	Recovery of PPC	Upgrade Black Horse PS	<2004	334,620	-	334,620	-	-	-	
	Port Weller	Recovery of PPC	Peel St PS	<2004	2,016,300	-	2,016,300	-	-	-	
	<b>Port Weller Subtotal</b>				<b>2,350,920</b>	-	<b>2,350,920</b>	<b>1,505,360</b>	<b>64.0%</b>	<b>845,560</b>	<b>36.0%</b>
	Seaway	Recovery of PPC	Seaway WPCP Upgrading (Port Colborne)	<2004	797,357	-	797,357	-	-	-	
	Seaway	Recovery of PPC	Elm Street PS Upgrading (Port Colborne)	<2004	257,833	-	257,833	-	-	-	
	Seaway	Recovery of PPC	Industrial PS Upgrade	<2004	133,205	-	133,205	-	-	-	
	<b>Seaway Subtotal</b>				<b>1,188,394</b>	-	<b>1,188,394</b>	<b>868,127</b>	<b>73.1%</b>	<b>320,268</b>	<b>26.9%</b>
	Welland	Outstanding Credit	Daimler Group (Welland)	<2008	172,454	-	172,454	-	-	-	
	Welland	Recovery of PPC	Sanitary Sewer Service to East Industrial Lands (Welland)	<2004	163,657	-	163,657	-	-	-	
	Welland	Recovery of PPC	North East Welland Trunk Sewer	<2004	1,600,992	-	1,600,992	-	-	-	
	Welland	Recovery of PPC	Dain City PS upgrade	<2004	236,808	-	236,808	-	-	-	
ZSW0609	Welland	Recovery of PPC	Welland WWTP - P2 Project	<2012	22,510	-	22,510	-	-	-	
ZSW9815	Welland	Recovery of PPC	South Thorold PS, forcemains, sewers	<2008	10,452,354	-	10,452,354	-	-	-	
	<b>Welland Subtotal</b>				<b>12,648,775</b>	-	<b>12,648,775</b>	<b>10,088,121</b>	<b>79.8%</b>	<b>2,560,655</b>	<b>20.2%</b>
	<b>Grand Total</b>				<b>34,461,507</b>	<b>1,020,847</b>	<b>33,440,660</b>	<b>24,270,784</b>		<b>9,169,877</b>	

**INFRASTRUCTURE COSTS COVERED IN THE DC CALCULATION**

**Wastewater - Region Wide**

**Region of Niagara**

Prj. No.	Project Name Increased Service Needs Attributable to Anticipated Development 2012-2031	Timing	Gross Capital Cost Est.	Less:				Potential DC Recoverable Cost				
				Benefit to Existing Development		Post Period Capacity		Grants, Subsidies & Other Contributions Attrib. to New Development	Sub Total	Net Costs Benefiting New Development	Residential Share	Non- Residential Share
				\$	%	\$	%					
	<b>Already Constructed</b>											
PUMPIN	Pumping Station Upgrade and Capacity Expansion	<2012	1,079,253					-	1,079,253	764,111	315,142	
CSO	Cost sharing CSO Control projects with Local Area	<2012	3,130,162					-	3,130,162	2,216,155	914,007	
	<b>Costs to be Incurred During the By-Law Period</b>											
	Wet Weather Flow/CSO Control Program (\$3.3 million per year)	2012-2016	16,500,000	12,375,000	75%	-		-	12,375,000	4,125,000	2,920,500	
	<b>Costs to be Incurred Post 2016</b>											
	-											
	Wet Weather Flow/CSO Control Program	2017-2031	49,500,000	37,125,000	75%	-		-	37,125,000	12,375,000	8,761,500	
	Wastewater Masterplan	2017-2031	1,200,000	120,000	10%	-		-	120,000	1,080,000	764,640	
Total Estimated Capital Cost			\$ 71,409,415	\$ 49,620,000		\$ -		\$ -	\$ 49,620,000	\$ 21,789,415	\$ 15,426,906	
			100.0%	69.5%					69.5%	30.5%		

Wastewater DC Recoverable Shares	Residential	Non-Residential
Masterplan	\$ 64,636,567	\$ 23,151,933
Already constructed	\$ 24,270,784	\$ 9,169,877
Region-wide	\$ 15,426,906	\$ 6,362,509
<b>Total</b>	<b>\$ 104,334,257</b>	<b>\$ 38,684,318</b>

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**APPENDIX C**  
**DEVELOPMENT CHARGE CALCULATION**

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## APPENDIX C – DEVELOPMENT CHARGE CALCULATION

### C.1 Uniform Region-wide Development Charge Calculations

1.1 The Region's existing development charges and the majority of municipal development charge calculations are based on an average across the entire municipality for each type of development. This development charge update process also explored the use of area-specific development charges for water and wastewater services. It was not considered feasible to calculate area-specific charges for the other services (Roads, Studies, Police and EMS) because of the difficulty involved in geographically differentiating the coverage of the works involved.

1.2 Water and wastewater charges were calculated for 19 service areas and these are set out in Table C-1, subject to the provisions noted below.

This area-specific approach was considered, but is not being carried forward as a recommendation at this time, based on an assessment of the advantages and disadvantages, receipt of input at the Stakeholders Workshop of February 17, 2012 and decisions made by the Development Charges Task Force. This assessment, in Niagara Region's circumstances, may be summarized as follows:

#### ***Advantages of Area-specific Development Charges***

- a) Apportions costs fairly, based on actual servicing requirements;
- b) Encourages development to occur in areas that can be most economically serviced;
- c) Supports developer front-ending and cost recovery arrangements.

#### ***Advantages of Uniform Region-wide Charges***

- a) Avoids potential need for transition arrangements and provides an immediate benefit (lower charges) to all development;
- b) Avoids the financing inflexibility of having 19 separate reserve funds, rather than one;
- c) Involves less administrative effort re collections and DC updating, and in the circumstance where the charges are not significantly different;
- d) Avoids the difficulties involved in making rate of development and debt financing estimates for 19 sub-areas;
- e) Reduces the financial challenge associated with the cost of the NOTL wastewater project.

Area-specific calculations were made for water and wastewater services, based on the service area for the treatment plant and associated infrastructure in each case. The charges which resulted are set out in Table C-1, based on cost assumptions which are similar to those applied in the Region-wide calculation as well as the growth assumptions in Schedules 2 and 3 of Appendix A. (Several subsequent minor cost refinements have not been incorporated in the area-specific calculations, as the area-specific charge scenario is not being recommended. As a result, this area-specific DC comparison is being provided for illustrative purposes only.)

**TABLE C-1**  
**REGION OF NIAGARA 2012 WATER & WASTEWATER RESIDENTIAL DCs**  
**CALCULATED BY MUNICIPALITY & SERVICE AREA**  
**FOR ILLUSTRATIVE PURPOSES**

**Residential - Per Single Detached Unit**

Municipality	Service Area		Water	Wastewater	Total
	Water	Wastewater			
Fort Erie	Fort Erie (Rosehill)	/ Anger Avenue	\$ 1,570	\$ 1,273	\$ 2,843
	Fort Erie (Rosehill)	/ Crystal Beach	\$ 1,570	\$ 729	\$ 2,299
	Fort Erie (Rosehill)	/ Stevensville Douglastown Lagoons	\$ 1,570	\$ 828	\$ 2,398
Grimsby	Grimsby	/ Baker Road	\$ 2,262	\$ 4,438	\$ 6,700
Lincoln	Decew	/ Baker Road	\$ 829	\$ 4,438	\$ 5,267
	Grimsby	/ Baker Road	\$ 2,262	\$ 4,438	\$ 6,700
Niagara Falls	Niagara Falls	/ Niagara Falls	\$ 119	\$ 2,672	\$ 2,791
Niagara-on-the-lake	Decew	/ Niagara-on-the-lake	\$ 829	\$ 14,453	\$ 15,282
	Decew	/ Port Weller	\$ 829	\$ 2,147	\$ 2,976
	Decew	/ Queenston	\$ 829	\$ 539	\$ 1,368
Pelham	Welland	/ Welland	\$ 440	\$ 3,377	\$ 3,817
Port Colborne	Port Colborne	/ Port Colborne	\$ 3,053	\$ 1,067	\$ 4,120
St. Catharines	Decew	/ Port Dalhousie	\$ 829	\$ 828	\$ 1,657
	Decew	/ Port Weller	\$ 829	\$ 2,147	\$ 2,976
Thorold	Decew	/ Port Weller	\$ 829	\$ 2,147	\$ 2,976
	Decew	/ Port Dalhousie	\$ 829	\$ 828	\$ 1,657
	Niagara Falls	/ Welland	\$ 119	\$ 3,377	\$ 3,496
Wainfleet			n/a	n/a	n/a
Welland	Welland	/ Welland	\$ 440	\$ 3,377	\$ 3,817
West Lincoln	Grimsby	/ Baker Road	\$ 2,262	\$ 4,438	\$ 6,700

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#### 1.4 DC Reserve Fund Balances

There is no explicit requirement under the DCA calculation method set out in s.s.5(1) to account for the outstanding reserve fund balance as part of making a DC calculation; however, s.35 does restrict the way in which the funds are used in future, i.e.

“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).”

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 growth which occurred earlier in the by-law period). This cost component is distinct from the development-related costs for the next 10 year period, which underlie the DC calculation herein.

The alternative would involve the municipality seeking to spend all reserve fund monies prior to renewing each by-law, which would often not be a sound basis for capital budgeting. Thus, the Region will use “soft service” reserve funds for the Region’s cost share of applicable development-related projects, which are required, but have not yet been undertaken (i.e. ineligible re service level and for benefit to existing development). This is a way of directing the funds to the project cost share for which they were collected (rather than to the sole benefit of future development, which will continue to generate the need for additional facilities and development charges, directly proportionate to the amount of future growth involved).

As a result, the uncommitted balance of the Region’s DC reserve funds (as of December 31/11) for roads, water, waste water and growth studies are applied against future spending requirements. These amounts have been accounted for in making the DC calculations herein.

These deductions are made in the case of hard services, in that the DC calculation for these services is geared to funding a large group of development-related works that are being implemented over the long term. While these works are also subject to service level caps, each DC calculation is designed to fund an appropriate share of the overall program of works, over a “moving” 10-year period. The program renewal process involves updating cost estimates and project descriptions, removing completed works and netting reserve fund balances, each time a new DC is calculated.

Two adjustments have been made to the Dec. 31, 2011 Reserve Fund Balances. The first adjustment reflects shortfalls in the amount of DC funding provided to completed DC eligible projects from 2009 to 2011. The amount was determined following a review of actual funding for road, water and wastewater projects undertaken since the 2009 DC Study was completed. It was determined that in a number of cases, the DC recoverable amount (after adjusting for discounting and phasing in of the charge) had not been fully funded from DCs but had been interim funded from other sources.

The second adjustment was identified in the 2009 DC study and made in calculating the 2009 DC. This adjustment was intended to recover the underfunded portion of the DC recoverable costs for projects completed 2004-2007. As noted in Appendix C of the 2009 DC Background

Study, this adjustment was applicable only to the wastewater service and was in the amount of \$6.54 million. As of yet, this adjustment to the DC reserve fund has not yet been made and it is intended that this transfer will be made in 2012. The revised reserve fund balances applied in the DC calculation are as follows:

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Niagara Region  
2012 DC Study  
DC Reserve Balance and Commitments for DC Calculation

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	2011 Year End	Less:		Subtotal	Revised Balance for DC Calc	Residential	Non-Residential	Allocation Basis
		Regional Reserve <sup>1</sup> Repayment for 2008-2011 Shortfalls	2009 DC RF Adjustment <sup>2</sup>					
Water	9,659,751	(1,625,000)		(1,625,000)	8,034,751	5,688,603.71	2,346,147.29	2031 pop/employment
Wastewater	4,737,692	(2,029,000)	(6,542,794)	(8,571,794)	(3,834,102)	(2,714,544)	(1,119,558)	
Road	7,001,536	(56,000)		(56,000)	6,945,536	4,722,964	2,222,572	10 year pop/employment
Total	21,398,979	(3,710,000)	(6,542,794)	(10,252,794)	11,146,185			
Studies	436805			-	436,805	297,027	139,778	10 year pop/employment

<sup>1</sup>Underfunded projects completed 2008 to 2012.

<sup>2</sup>Adjustment identified in the 2009 DC Background Study for underfunding of <2009 works. This adjustment had not yet been made as of December 31, 2011.

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1.5 Development charges by type of residential use are typically calculated on a per capita basis and then allocated to different types of dwelling units in accordance with the average occupancy of units of the same age profile. This has been done herein, except that in the case of the Roads charge, the differentiation by residential unit type has been based on differences in peak period trip generation. This is appropriate, in that it is road trip usage that generates the need to expand road capacity and incur growth-related capital costs.

1.6 Development charges by type of non-residential use are typically calculated on a simple per square foot or metre of gross building floor area basis. This approach ignores the fact that there are significant differences in the density of employees per unit of floor area between industrial, office, retail, hotel, institutional and other uses. This is relevant in that one means of estimating servicing requirements is to base them on the number of employees to be accommodated, since employees represent the primary peak period service users. For example, this is the case with estimating water and wastewater requirements and with the cost share split between per capita residential needs and per employee non-residential needs for many services.

1.7 Trip generation statistics which were used to differentiate the residential roads charge could also have been used with respect to the non-residential roads charge. This would have resulted in a similar relativity of charges to those arrived at via employee density averages, but would have introduced some conceptual challenges regarding non-residential development, concerning differences in trip "chaining" and length. It was considered preferable to use the floor area/employee approach for all non-residential services.

1.8 The employee density averages which were used to differentiate the non-residential charge (with the charge varying inversely with floor space/employee) were based on Niagara sampling averages, as well as relevant Ontario industry standards, as follows:

	<u>Sq.ft./Employee</u>
Retail	450
Office	325
Industrial	950
Institutional	900
Hotel/Motel	1,400

1.9 Tables C-2 to C-5 set out the DC calculations, based on the standard Region-wide average cost method, wherein the DC recoverable costs for all services are allocated over the forecast population increase and non-residential employment and gross floor area increase, to arrive at a cost per capita and per sq.ft. of non-residential floor space. The calculated development charge per residential unit is determined by multiplying the cost per capita by the average number of persons per unit for each unit type (other than in the case of residential development where the charge reflects average trips/unit by dwelling type).

For most services, the forecast population/floor area increase for the entire Region has been used. As discussed in Appendix A, in the case of water and wastewater services, a lower forecast is applicable to reflect the serviced population in each case. Table C-6 provides the basis for the weighted non-residential floor area used to calculate the differentiated charges by type of non-residential development. A financing charge has been added to the residential charge for roads based on a cash flow calculation.



**TABLE C-2**  
**REGION OF NIAGARA**  
**2012 MUNICIPAL-WIDE DEVELOPMENT CHARGE CALCULATION**  
**2012-2021**

Service	2012 \$ DC Eligible Cost		
	Residential	Non-Residential	
		Traditional	Use Specific
1. General Government	\$1,918,620	\$902,880	\$902,880
Less Studies DC Reserve Fund	\$297,027	\$139,778	\$139,778
<b>General Government Subtotal</b>	\$1,621,593   19.25%	\$763,102	\$763,102
2. Police	\$5,251,244   62.35%	\$2,471,173	\$2,471,173
3. Emergency Medical Services	\$1,549,487   18.40%	\$231,533	\$231,533
<b>TOTAL DC ELIGIBLE CAPITAL COST</b>	\$8,422,323   100.0%	\$3,465,808	\$3,465,808
2012-2021 Gross Population / GFA Growth (sq.ft.)	63,544	11,180,550	7,545,704 <sup>1</sup>
Cost Per Capita / Non-Residential GFA (sq.ft.)	\$132.54	\$0.31	\$0.46
By Residential Unit Type		<u>Non-Residential Type</u>	<u>Weighting</u>
Single Detached                   p.p.u	3.05	Office/Retail	1.00
Other Multiples	2.20	Industrial	0.45
Apartment	1.71	Institutional	0.47
Dwelling Room	1.00	Hotel/Motel	0.30
			\$0.46
			\$0.21
			\$0.22
			\$0.14

**TABLE C-3**  
**REGION OF NIAGARA**  
**2012 MUNICIPAL-WIDE DEVELOPMENT CHARGE CALCULATION**  
**2012-2021**

Service	2012 \$ DC Eligible Cost		
	Residential	Non-Residential	
		Traditional	Use Specific
4. Roads	\$101,296,164	\$47,668,783	\$47,668,783
Less Roads DC Reserve Fund	\$4,722,964	\$2,222,572	\$2,222,572
<b>TOTAL DC ELIGIBLE CAPITAL COST</b>	\$96,573,199	\$45,446,211	\$45,446,211
2012-2021 Gross Population / GFA Growth (sq.ft.)	54,664 <sup>2</sup>	11,180,550	7,545,704 <sup>1</sup>
Cost Per Capita / Non-Residential GFA (sq.ft.)	\$1,766.67	\$4.065	\$6.02
By Residential Unit Type		<u>Non-Residential Type</u>	<u>Weighting</u>
Single Detached                   p.p.u	3.05	Office/Retail	1.00
plus financing costs		Industrial	0.45
Total Single and Semi-Detached	\$5,540	Institutional	0.47
Other Multiples                   % of single	51.5%	Hotel/Motel	0.30
Apartment	34.7%		
Dwelling Room	21.8%		
			\$6.02
			\$2.71
			\$2.83
			\$1.81

<sup>1</sup> As per Table C-6

Unit type	# of units	ppu	Gross population increase	Adjusted to include dwelling room population (i.e. special care/special need, etc)	Weight	Adjusted pop
singles/semis	15,563	3.05	47,467	47,467	1.000	47,467
multiples	5,266	2.20	11,585	11,585	0.515	5,966
apartment	2,597	1.71	<u>4,441</u>	1,950	0.347	677
sp care/sp need <sup>3</sup>				<u>2,542</u>	0.218	<u>554</u>
calculation total			63,493	63,544		54,664
forecast total (from Sch. 5)			63,544			

<sup>3</sup> equals 4% of total new population taken from apartment and difference between calc. gross pop and actual gross pop (i.e. apartment = actual less special care)

**TABLE C-4**  
**REGION OF NIAGARA**  
**2012 WASTEWATER DEVELOPMENT CHARGE CALCULATION**  
**REGION-WIDE RECOVERY OF ALL PROJECTS**

Service	2012 \$ Net Development-Related Cost		
	Residential Cost Share	Traditional	Non-Residential Cost Share Use Specific
<b>Wastewater</b> Less DC Reserve Fund	104,334,257 (2,714,544)	\$38,684,318 (\$1,119,558)	\$38,684,318 (\$1,119,558)
<b>TOTAL NET DEVELOPMENT-RELATED COST</b>	<b>\$107,048,801</b>	<b>\$39,803,876</b>	<b>\$39,803,876</b>
2012-2031 Gross Population / GFA Growth (sq.ft.)	102,745	15,706,011	10,459,772
Cost Per Capita / Non-Residential GFA (sq.ft.)	\$1,041.89	\$2.53	\$3.81
By Residential Unit Type	<b>p.p.u</b>	Non-Residential Type	Weighting \$/sq.ft. of gfa
Single Detached	3.05	Office/Retail	1.000 \$3.81
Other Multiples	2.20	Industrial	0.445 \$1.70
Apartment	1.71	Institutional	0.470 \$1.79
Dwelling Room	1.00	Hotel/Motel	0.302 \$1.15

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**TABLE C-5**  
**REGION OF NIAGARA**  
**2012 WATER DEVELOPMENT CHARGE CALCULATION**  
**REGION WIDE RECOVERY OF ALL PROJECTS**

Service	2012 \$ Net Development-Related Cost		
	Residential Cost Share	Traditional	Non-Residential Cost Share Use Specific
<b>Water</b> Less Reserve Fund Balance	36,595,909 5,688,604	14,967,970 2,346,147	\$14,967,970 \$2,346,147
<b>TOTAL NET DEVELOPMENT-RELATED COST</b>	<b>\$30,907,305</b>	<b>\$12,621,823</b>	<b>\$12,621,823</b>
2012-2031 Gross Population / GFA Growth (sq.ft.)	102,745	15,706,011	10,459,772
Cost Per Capita / Non-Residential GFA (sq.ft.)	\$300.82	\$0.80	\$1.21
By Residential Unit Type	<b>p.p.u</b>	Non-Residential Type	Weighting \$/sq.ft. of gfa
Single Detached	3.05	Office/Retail	1.000 \$1.21
Other Multiples	2.20	Industrial	0.445 \$0.54
Apartment	1.71	Institutional	0.470 \$0.57
Dwelling Room	1.00	Hotel/Motel	0.302 \$0.37

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**TABLE C-6  
BASIS FOR USE-SPECIFIC CALCULATIONS**

	Employment	Floor Area	Sq.ft./ employee	Employee/ 1,000 sq.ft.	Weighting	Weighted
<b><i>Weighted GFA Non-Residential For Roads Office/Institutional Equivalents (mid 2012 to mid 2022)</i></b>						
Office/Retail <sup>1</sup>	11,575	4,934,750	426	2.35	1.000	4,934,750
Industrial	4,044	3,841,800	950	1.05	0.448	1,722,744
Institutional	1,030	927,000	900	1.11	0.473	438,780
Hotel/Motel	<u>1,055</u>	<u>1,477,000</u>	1,400	0.71	0.304	449,430
Total	17,704	11,180,550				
<u>Total Weighted Floor Area</u>						7,545,704
<b><i>Weighted GFA for Water and Wastewater (mid 2012 to mid 2031)</i></b>						
Office/Retail <sup>1</sup>	15,982	6,764,346	423	2.36	1.000	6,764,346
Industrial	5,131	4,874,557	950	1.05	0.445	2,170,461
Institutional	1,960	1,764,108	900	1.11	0.470	829,131
Hotel/Motel	<u>1,645</u>	<u>2,303,000</u>	1,400	0.71	0.302	695,835
Total	24,718	15,706,011				
<u>Total Weighted Floor Area</u>						10,459,772

<sup>1</sup> Source is Schedule 8 from Appendix A. Sum of office employees at 325 sq.ft. per employee and retail employees at 450 sq.ft. per employee.

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**APPENDIX D**  
**REGIONAL LOCAL SERVICE POLICY**

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## APPENDIX D - REGIONAL LOCAL SERVICE POLICY

### Water and Wastewater Services

The following guideline sets out, in general, the range of infrastructure for water and wastewater services that constitutes a development charge project vs. subdivider/developer responsibilities.

#### 1) **Watermains**

##### *i) Related to a specific development*

Watermains internal to a specific development, as well as external watermains (generally less than 400 mm in size) to be connected to an existing local/regional main are considered to be the developer's responsibility through a development agreement with the local municipality.

##### *ii) Unrelated to a specific development (transmission mains, regional distribution mains and inter-municipal mains)*

Regional trunk watermains are transmission mains intended to primarily connect a well or treatment facility with a storage reservoir (generally 400 mm in size or greater). Occasionally, Regional mains (usually less than 400 mm in size) perform as an inter-municipal main or distribution mains, resulting from a joint venture project with a local municipality. All such mains, when not constructed for a specific development(s), are considered to be development charge projects in whole or part.

#### 2) **Booster Stations and Reservoirs**

##### *i) Related to a specific development*

Temporary or permanent water booster pumping stations servicing a specific development(s) are considered to be the developer's responsibility through a development agreement with the local municipality.

##### *ii) Unrelated to a specific development (associated with a Regional reservoir operation)*

Water booster pumping stations not servicing a specific development(s) and relating to the operation of a reservoir facility are considered to be development charge projects.

#### 3) **Chlorination Facilities**

New or upgraded chlorination facilities will be considered to be a development charge projects.

#### 4) **Wastewater Mains**

##### *i) Related to a specific development*

Wastewater mains internal to a specific development, as well as external sewers with an ultimate capacity of less than 170 l/s peak dry weather flow (generally less than 600 mm in size) to connect a development to an existing local/regional main are considered to be the developer's responsibility through a development agreement with the local municipality.

**ii) Unrelated to a specific development**

Regional trunk wastewater mains having a peak dry weather flow capacity of 170 l/s or greater (generally 600 mm in size or greater) or 85 l/s for inter-municipal mains, are considered to be development charge projects.

**5) Lift Stations**

**i) Related to a specific development**

Temporary or permanent lift stations intended to service a specific development(s) with an ultimate capacity of less than 170 l/s peak dry weather flow and fed by wastewater mains that are the responsibility of the developer(s), are considered to be the developer's responsibility through a development agreement with the local municipality (not Regional development charge projects).

**ii) Unrelated to a specific development**

New or upgraded lift stations are considered to be development charge projects.

**6) Noise and Odour Control Abatement Measures**

**i) Related to a specific development**

All noise and odour control abatement measures to comply with MOE requirements and/or other engineering design standards are considered to be the developer's responsibility through an agreement with the local municipality and/or provisions of the Planning Act.

**ii) Unrelated to a specific development**

New or upgraded noise and/or odour control facilities unrelated to a specific development are considered to be development charge projects.

**7) Treatment Facilities**

New or upgraded water or wastewater treatment facilities are considered to be development charge projects.

**8) Land Acquisition**

**(including right-of-way, utility easements and building setbacks)**

**i) Related to a specific development**

(a) All land acquisition associated with providing access right-of-ways and utility easements to new or existing Regional facilities, as well as property intended to accommodate the necessary building setbacks from Regional facilities, as per MOE requirements and/or other engineering design standards, are considered to be the developer's responsibility through the *Planning Act* and/or development agreement with the local municipality.

(b) Land acquisitions deemed excessive are considered to be development charge projects (normally included as part of the capital works project).

**ii) Unrelated to a specific development**

Land acquisition for Regional facilities and utilities unrelated to a specific development will be considered to be development charge projects.

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**The above policy guidelines are general principles by which staff will be guided in considering development applications. However, each application will be considered 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, these policy guidelines, the location and type of services required and their relationship to the proposed development and existing and proposed development in the area, changes in policy regarding Regional and local municipality responsibility and subsection 59(2) of the *Development Charges Act, 1997*.**

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## **Transportation Services**

The following guideline sets out, in general, the range of infrastructure for Transportation Services that constitutes development charge projects.

### **ROAD RELATED WORKS**

#### **1) *Arterial Collector and Other Roads***

##### ***i) Related to a Specific Development***

- (a) All new roads, other than arterials internal to a development, as well as those primarily acting as a connection serving a development, are considered to be the developer's responsibility through a development agreement with the local municipality.
- (b) New or upgraded Regional arterial and collector roads necessitated by abutting or nearby development(s) are considered to be the developer's responsibility through an agreement with the Region.

##### ***ii) Unrelated to a Specific Development***

New or upgraded arterial and collector Regional roads necessitated by increased traffic volumes and unrelated (and not abutting) to a specific development are considered to be development charge projects.

#### **2) *Traffic Signals and Intersection Improvements***

##### ***i) Related to a Specific Development***

Intersection improvements to and/or signalization of all roads, private entrances or entrances to specific developments necessitated by abutting or nearby development(s) and relating to Regional arterial or collector roads are considered to be the developer's responsibility through an agreement with the Region.

##### ***ii) Unrelated to a Specific Development***

Intersection improvements to and/or signalization of Regional arterial or collector roads, necessitated by increased traffic volumes, are considered to be development charge projects.

#### **3) *Streetlights***

##### ***i) Related to a Specific Development***

- (a) Streetlights on all new roads within a specific development are considered to be the developer's responsibility through a development agreement with the local municipality.
- (b) Streetlights at new or existing intersections of Regional arterial or collector roads necessitated by a specific development (with or without intersection improvements) are considered to be the developer's responsibility through an agreement with the local municipality and/or Region.

##### ***ii) Unrelated to a Specific Development***

- (a) Streetlights on Regional arterial or collector roads are considered to be the mandated responsibility of the local municipality.



- (b) Streetlights at intersections along Regional arterial or collector roads, necessitated by increased traffic volumes or safety concerns and unrelated to new development(s), are considered to be development charge projects.

#### 4) **Sidewalks**

##### **i) Related to a Specific Development**

- (a) Sidewalks on all internal roads and abutting road frontages, whether on local or Regional roads, are considered to be the developer's responsibility through a development agreement with the local municipality.
- (b) Sidewalks external to a development, whether on local or Regional roads, which are necessary to connect the development to public spaces and/or existing sidewalks, are considered to be the developer's responsibility through a development agreement with the local municipality.

##### **ii) Unrelated to a Specific Development**

Sidewalks on Regional arterial or collector roads are considered to be the mandated responsibility of the local municipality.

#### 5) **Bike Lanes/Bike Paths**

##### **i) Related to a Specific Development**

- (a) Bike paths/lanes within and outside road allowances within a specific development are considered to be the developer's responsibility through a development agreement with the local municipality.
- (b) Bike paths/lanes external to a development, which are necessary to connect the development to public spaces and/or other bike infrastructure, are considered to be the developer's responsibility through a development agreement with the local municipality.

##### **ii) Unrelated to a Specific Development**

Bike paths/lanes within Regional road allowances located separate from or combined with the road pavement are considered to be development charge projects.

#### 6) **Noise Abatement Measures**

##### **i) Related to a Specific Development**

Noise abatement measures internal to a development, related or unrelated to Regional arterial and collector roads, are considered to be the developer's responsibility through a development agreement with the local municipality.

##### **ii) Unrelated to a Specific Development**

Noise abatement measures unrelated to a specific development(s) on Regional arterial or collector roads are considered to be development charge projects.

**7) Traffic Control Systems**

**i) Related to a Specific Development**

New or upgraded traffic control systems intended to service a specific and/or several development(s) are considered to be the developer's responsibility through an agreement with the Region.

**ii) Unrelated to a Specific Development**

On Regional arterial or collector roads, new and upgraded traffic control systems necessitated by increased traffic volumes and unrelated to a specific development(s), are considered to be development charge projects.

**8) Transportation Studies (traffic studies, master plans, secondary corridor studies)**

**i) Related to a Specific Development**

Traffic studies undertaken for the benefit of a specific development(s) are considered to be the responsibility of the developer.

**ii) Unrelated to a Specific Development**

Master plans and secondary corridor studies are considered to be development charge projects.

**9) Land Acquisition (including right-of-ways and utility easements)**

**i) Related to a Specific Development**

(a) Land acquisition to upgrade Regional arterial or collector roads and/or provide utility corridors to the widths required by approved engineering design standards, is considered to be the developer's responsibility and primarily provided by dedications under the Planning Act.

(b) Land acquisition for grade separations, new Regional arterial roads or other excessive needs beyond normal dedication requirements are considered to be development charge projects (normally included as part of the capital works project).

**ii) Unrelated to a Specific Development**

In areas where limited or no development is anticipated and direct dedication is unlikely within the time constraints of the proposed capital works project, such land acquisitions are considered to be development charge projects (normally included as part of the capital works project).

**STORM WATER MANAGEMENT WORKS**

**10) Storm Drainage Works**

**i) Related to a Specific Development**

**(storm sewers, culverts, ditching, outfalls)**

(a) All storm drainage works related to a specific development(s) and not providing a benefit to Regional property or infrastructure are considered to be the developer's responsibility through a development agreement with the local municipality.

(b) All Regional costs associated with over-sizing of storm drainage works by a developer are considered to be development charge projects for which

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an agreement will be required between the Region and developer and/or the local municipality.

**ii) Unrelated to a Specific Development**

- (a) All storm drainage works relating to future Regional road construction, are considered to be development charge projects (normally included as part of the capital works project).
- (b) Storm drainage works relating to road maintenance best practises may be considered as development charge projects in whole or part.

**11) Storm Water Management**

**(retention/detention storage, erosion remediation)**

**i) Related to a Specific Development**

All storm water management works related to a specific development(s) and not providing a benefit to Regional property and/or infrastructure are considered to be the developer's responsibility through a development agreement with the local municipality.

**ii) Unrelated to a Specific Development**

All Regional costs associated with the construction of storm water management works unrelated to a specific development, including downstream erosion works control measures are considered to be development charge projects (normally included as part of the capital works project).

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The above policy guidelines are general principles by which staff will be guided in considering development applications. However, each application will be considered 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, these policy guidelines, the location and type of services required and their relationship to the proposed development and existing and proposed development in the area, changes in policy regarding Regional and local municipal responsibility and subsection 59(2) of the *Development Charges Act, 1997*.

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## **Front Ending Policy**

The development charge calculations incorporate the growth-related capital requirements that have been identified in accordance with the policies outlined more fully in Chapter 4 of this Background Study. The Region may require a developer(s) to enter into front-end financing or related agreements as part of the planning application approval process in order to fund specific capital projects that are required to service their development in the following circumstances:

1. Where a specific development(s) requires Regional budget approval for a capital project that has been included within the development charge calculation in advance of the project timing determined as outlined in the Region's Annual Capital Budget and Forecasting process.
2. Where a specific development(s) requires Regional budget approval for a capital project that has not been included within the development charge calculation but has been deemed to be a development charge project (as opposed to a subdivider responsibility under the Local Servicing Policy).

These front-end financing and related agreements will ensure that the complete infrastructure requirements based on Master Planning processes, phasing strategy, and other studies are provided for, and that the Region's design criteria requirements, as well as Regional and local service standards, are maintained in the project delivery. These agreements will provide for landowner financing of the full project cost where required, with repayment terms to the landowner(s) acceptable to the Region based on a supporting financial plan.

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

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**APPENDIX E**  
**LONG TERM CAPITAL AND OPERATING**  
**COST EXAMINATION**

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## APPENDIX E - LONG TERM CAPITAL AND OPERATING COST EXAMINATION

This Appendix presents the examination required under s.s.10(2)(c) of the DCA, 1997 of the long-term capital and operating costs for capital infrastructure required for each service to which the by-law relates.

### 1. Services

As indicated in the Region's proposed development charge by-law, charges are proposed for the following services:

- (a) Administrative (Development-related Studies)
- (b) Police
- (c) Emergency Medical Services
- (d) Roads and Related
- (e) Water
- (f) Wastewater

The three sections which follow address, in turn, the operating cost implications of these services, as well as the capital cost implications (medium and long term). The final section completes the cost examination with a brief commentary on its affordability.

### 2. Operating Cost Implications

- (a) **Administrative** - The "capital infrastructure" involved, consists of development-related studies. They will be administered and implemented by existing staff and have no additional operating cost implications.
- (b) **Police** - The capital program provides for the expansion of facility space. Costs for building maintenance, telephone and other utilities, office supplies, etc., are estimated at \$20 per sq.ft. per year for a total annual operating cost of approximately \$420,000, assuming a maximum of 21,000 sq.ft. to be partially funded from development charges.
- (c) **Emergency Medical Services** – Two new satellite hubs are planned for Grimsby and Welland. The operating costs associated with these two facilities for items such as building maintenance, telephone, other utilities, office supplies, etc., is estimated to be in the range of \$165,000 to \$170,000 annually.

The annual maintenance cost for the additional vehicles has been estimated at \$300,000, once all ten vehicles are in operation, for expenditures such as maintenance, fuel, licenses and insurance. Annual staffing cost related to the ten additional vehicles is estimated to be in the range of \$5 million.

- (d) **Roads and Related** – The roads program to be partially funded by DCs will involve the addition of approximately 144 lane kms of arterial roads by 2021. Based on estimated

maintenance and snow clearing costs of \$10,000 per lane kilometre, the annual cost to maintain all of the additional roads when completed is expected to be \$1.4 million.

- (e) **Water** – The following table summarizes the estimated annual operating costs of the new and/or expanded water service works.

		Annual O&M Cost
Increased storage capacity	23.8 ML of additional storage across 4 facilities	\$ 635,000
Increased pumping station capacity	117 L/s of new pumps at 3 stations	\$ 18,000
Supply projects (treatment plants)	5km of new intake pipeline and additional 22 MLD of raw water pumping capacity at intake	\$ 81,000
Security of supply projects (pipes)	8.7 km of new watermain	\$ 52,000

- (f) **Wastewater** – The following table summarizes the estimated annual operating costs for the new and/or expanded wastewater treatment and collection works.

		Annual O&M Cost
Increased WWTP capacity	17.1 MLD additional capacity + process upgrades at existing plants; 1 new 8 MLD plant	\$ 3,251,000
Increased pumping station or forcemain capacity	1281 L/s of new pumps at 9 stations, the additional of VFD drives at one station, and 18.3km of forcemain	\$ 293,000
New or replaced pipes	2.68 km of new pipe	\$ 18,000

### 3. **Capital Cost Implications**

- (a) **Administrative** - Development-related studies do not, of themselves, have initial or subsequent capital cost implications. The works that they address are covered under other service headings.
- (b) **Police** - Capital funding is expected to occur via a combination of capital funding from the current budget, development charge and other reserve funds (existing and to be accumulated), with front-end financing as required.

Over the long term, it is expected that the new facilities will require substantial repair or replacement after 40+ years.

It is anticipated that the Region's capital reserve fund will fund a portion of this long term cost, based on a future contribution schedule to be established. This also applies to the other services.

- (c) **Emergency Medical Services** – Capital funding is expected to occur via a combination of capital funding from the current budget, development charge and other reserve funds (existing and to be accumulated). Over the long term, new facilities will require substantial repair and replacement after 30-40 years.
- (d) **Roads and Related** – Capital funding is expected to occur via a combination of capital funding from the current budget, development charge and other reserve funds (existing and to be accumulated), with front-end financing as required.

The road program is expected to be carried out on a gradual basis over the ten years, as development charges and supplementary funding sources become available and roads-related needs arise.

Over the long term, capital repair and replacement expenditures are anticipated, based on the following general schedule:

Road Resurfacing	-	every 10-12 years at a cost of \$150,000 per lane km
Road Reconstruction	-	25-30 years at a cost of \$546,000 to \$1,250,000 per lane km depending on the type of road

- (e) **Water** – Capital funding is expected to occur via a combination of capital funding from the current budget, development charge and other reserve funds (existing and to be accumulated), with front-end financing as required.

With respect to long term capital replacement, the following general schedule is expected to apply.

		Life Span (Years)	Annual Replacement Cost
Increased storage capacity	23.8 ML of additional storage across 4 facilities	50	\$ 635,000
Increased pumping station capacity	117 L/s of new pumps at 3 stations	40	\$ 22,000
Supply projects (treatment plants)	5km of new intake pipeline and additional 22 MLD of raw water pumping capacity at intake	75 for pipeline; 40 for lift station	\$ 68,000
Security of supply projects (pipes)	8.7 km of new watermain	75	\$ 220,000

- (f) **Wastewater** – Capital funding is expected to occur via a combination of capital funding from the current budget, development charge and other reserve funds (existing and to



be accumulated), with front-end financing as required. With respect to long term capital replacement, the following general schedule is expected to apply:

		Life Span (Years)	Annual Replacement Cost
Increased WWTP capacity	17.1 MLD additional capacity + process upgrades at existing plants; 1 new 8 MLD plant	50	\$ 2,906,000
Increased pumping station or forcemain capacity	1281 L/s of new pumps at 9 stations, the additional of VFD drives at one station, and 18.3km of forcemain	40 for PS; 75 for FM	\$ 474,000
New or replaced pipes	2.68 km of new pipe	75	\$ 115,000

#### 4. Affordability Implications

The foregoing sections have examined the long term operating and capital cost implications of the services and infrastructure required for the specific services to which the development charge by-law relates. These requirements are in addition to the operating cost and capital renewal needs of the 2012 base population and existing facilities, although a portion of the capital and operating costs of these new facilities will also be the responsibility of the existing population, based on the benefits to be received.

Over the 10 year period, Regional population is expected to increase by 9% and by 16.7% by 2031. Employment is forecast to increase by 10.8% from 2012 to 2022 and by 17.2% from 2012 to 2031. It is anticipated that revenues from property taxation, development charges (which only cover a portion of development-related capital costs), user charges and other revenue sources will generally increase proportionately, as a result. These revenue increases will be available to the Region on a gradual basis over time, to assist in funding the foregoing, based on the averages below.

#### **Summary of Selected Region Revenue Sources 2010**

Revenue Category	\$	\$/capita (2010 pop)
Taxes (total Region)	300,295,722	678
Fees, service charges, donations	79,674,847	180
Water and wastewater charges	102,048,602	230
<b>TOTAL</b>	<b>\$482,019,171</b>	<b>\$1,088</b>

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**APPENDIX F**  
**PROPOSED REGION OF NIAGARA DEVELOPMENT CHARGE**  
**BY-LAW (2012)**

## THE REGIONAL MUNICIPALITY OF NIAGARA

BY-LAW NO. [number]

A BY-LAW TO ESTABLISH DEVELOPMENT CHARGES  
FOR THE REGIONAL MUNICIPALITY OF NIAGARA AND TO REPEAL BY-LAW 62-2009

WHEREAS the *Development Charges Act, 1997*, S.O. 1997, c. 27, as amended, 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 by-law applies;

AND WHEREAS the Council of The Regional Municipality of Niagara completed a development charge background study in July, 2012;

AND WHEREAS the Council of The Regional Municipality of Niagara gave notice, made available this proposed by-law and the background study, and on June 6, 2012 held a public meeting;

NOW THEREFORE the Council of The Regional Municipality of Niagara enacts as follows:

DEFINITIONS

1. In this By-law:

"Act" means the *Development Charges Act, 1997*, S.O. 1997, c. 27, as amended;

"agricultural use" means use or intended use for bona fide farming purposes:

(a) including (but not limited to):

- (i) cultivation of crops, whether on open land or in greenhouses, including (but not limited to) fruit, vegetables, herbs, grains, field crops, sod, trees, shrubs, flowers, and ornamental plants;
- (ii) raising of animals, including (but not limited to) cattle, horses, pigs, poultry, livestock, fish; and
- (iii) agricultural animal husbandry, dairying, equestrian activities, horticulture, fallowing, pasturing, and market gardening;

(b) but excluding:

- (i) retail sales activities; including but not limited to restaurants, banquet facilities, hospitality facilities and gift shops;
- (ii) services related to grooming, boarding or breeding of household pets;

"apartment dwelling" means a residential building containing two or more dwelling units, of which not all dwelling units have a separate entrance to grade;

"board of education" means a board as defined in the *Education Act*, R.S.O. 1990, c. E.2, as amended;

"brownfield" means land located within the boundaries of the approved Community Improvement Project areas, as amended from time to time and as set out in Schedule "D" to this By-law, or

within the boundaries of the urban areas as defined from time to time in the Region's Policy Plan, upon which there has been previous industrial or commercial development (although such development may have been demolished) and for which a Phase I Environmental Site Assessment and Record of Site Condition have been completed pursuant to the *Guideline for Use at Contaminated Sites in Ontario* (Ontario Ministry of the Environment);

"building permit" means a permit pursuant to the *Building Code Act, 1992*, S.O. 1992, c. 23, as amended;

"calculation date" means the date on which the Chief Building Official of the local municipality has received:

- (a) the application for the building permit; and
- (b) all accompanying information, approvals and documents required to be provided by the applicant seeking the building permit and within the control of the applicant,

even if such Chief Building Official has not yet received:

- (c) payment of all fees and charges (including development charges) in respect of the issuance of the building permit; and /or
- (d) all information, approvals and documents required for the building permit, but:
  - (i) not within the control of the applicant; and
  - (ii) for which the applicant has taken all necessary and reasonable steps to obtain;

"commercial purpose" means used, designed or intended for use for or in connection with the purchase and/or sale and/or rental of commodities; the provision of services for a fee; or the operation of a business office;

"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; notwithstanding the foregoing, development does not include temporary structures, including but not limited to, seasonal hoop structures, seasonal fabric structures, tents, or produce sales stands;

"duplex dwelling" means a residential building containing two dwelling units separated by horizontal division, each of which units has a separate entrance to grade;

"dwelling room" means either

- a) Each bedroom used, designed or intended for use by one or more persons living together in a lodging home, or student residence,
- or
- b) In the case of a special care/special need residence, each individual room or suite of rooms used, designed or intended for use by one or two persons with or without exclusive sanitary and/or culinary facilities.

"dwelling unit" means one or more rooms used, designed or intended to be used by one or more persons as a residence and which has access to culinary and/or sanitary facilities. A "dwelling unit" does not include a Park Model Trailer conforming to National Standard of Canada #CAN/CSA - Z241.0-92 or similar standard;

“existing industrial building” means a building used for or in connection with:

- (a) manufacturing, producing, processing, storing or distributing something;
- (b) research or development in connection with manufacturing, producing or processing something;
- (c) retail sales by a manufacturer, producer or processor of something they manufactured, produced or processed, if the retail sales are at the site where the manufacturing, production or processing takes place;
- (d) office or administrative purposes, if they are:
  - (i) carried out with respect to manufacturing, producing, processing, storage or distributing of something; and
  - (ii) in or attached to the building or structure used for that manufacturing, producing, processing, storage or distribution;

“granny flat” means a one-unit detached, temporary residential structure, containing culinary and sanitary facilities that is ancillary to an existing residential structure and that is designed to be temporary;

“gross floor area” means the total floor area, measured between the outside of exterior walls, virtual walls or between the outside of exterior walls or virtual walls and the centre line of party walls dividing the building from another building, of all floors and mezzanines above the average level of finished ground adjoining the building at its exterior walls;

“group home” means a dwelling for the accommodation of 3-8 residents, supervised by agency staff and funded wholly or in part by any government and approved or supervised by the Province under any Act.

“hotel/motel” means a commercial establishment offering lodging to travellers and sometimes permanent residents, and may include other services such as restaurants, meeting rooms and stores that are available to the general public, but does not include a dwelling unit.

“industrial use” means land, buildings or structures used for or in connection with manufacturing by:

- (a) manufacturing, producing, processing, storing or distributing something;
- (b) research or development in connection with manufacturing, producing or processing something;
- (c) retail sales by a manufacturer, producer or processor of something they manufactured, produced or processed, if the retail sales are at the site where the manufacturing, production or processing takes place;
- (d) office or administrative purposes, if it is:
  - (i) carried out with respect to manufacturing, producing, processing, storage or distributing of something; and
  - (iii) in or attached to the building or structure used for that manufacturing, producing, processing, storage or distribution;
- (e) self storage facilities;

"institutional" means lands, buildings or structures used or designed or intended for use by an organized body, society or religious group for promoting a public or non-profit purpose and includes offices where such uses are accessory to an institutional use.

"local board" means a municipal service board, transportation commission, public library board, board of health, police services board, planning board, or any other board, commission, committee, body or local authority established or exercising any power or authority under any general or special Act with respect to any of the affairs or purposes of one or more local municipalities or the Region, but excluding a board of education, a conservation authority, any municipal services corporation that is not deemed to be a local board under O. Reg. 599/06 made under the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended;

"local municipality" means any one of the municipalities of the Town of Fort Erie, Town of Grimsby, Town of Lincoln, City of Niagara Falls, Town of Niagara-on-the-Lake, Town of Pelham, City of Port Colborne, City of St. Catharines, City of Thorold, Township of Wainfleet, City of Welland, and the Township of West Lincoln;

"lodging home" means a use in which the proprietor supplies for gain, lodging with or without meals to three or more persons other than the proprietor or members of his family but does not include a tourist establishment, hotel, hospital or home for the aged, but does include a rooming house, boarding house and a student residence.

"long term care home" means homes, nursing homes or homes for the aged where the Ministry of Health and Long Term Care funds the care provided in such homes and application for accommodation is made through a Community Care Access Centre.

"mezzanine" means an intermediate floor assembly between the floor and ceiling of any room or storey and includes an interior balcony;

"mixed-use building" means a building or structure used for both residential and non-residential use;

"multiplex dwelling" means a residential building containing three or more dwelling units, each of which unit has a separate entrance to grade;

"municipal housing project facilities" has the same meaning as that specified in the Region's *Municipal Housing Facility By-law* (No. 34-2004), as may be amended;

"non-residential building" means a building or structure used exclusively for non-residential use;

"non-residential use" means use or intended use for any purpose other than human habitation and includes, but is not limited to, an institutional use, an industrial use, a hotel/motel use and a commercial use;

"other multiple" means all residential units other than a single detached dwelling or apartment dwelling or a dwelling room, including, but not limited to, semi-detached, row, multiplex and duplex units;

"parking structure" means buildings or structures used for the parking of motor vehicles;

"place of worship" means any building or part thereof that is owned by a church or religious organization that is exempt from taxation as a place of worship pursuant to the *Assessment Act*, R.S.O. 1990, c. A.31, as amended;

"premise" means one or more dwelling units and/or one or more square feet used for non-residential use;

"Region" means The Regional Municipality of Niagara;

"Regulation" means O. Reg. 82/98 under the Act, as amended;

"residential building" means a building used exclusively for residential use, including a single detached dwelling, a semi-detached dwelling, a row dwelling, a duplex dwelling, a multiplex dwelling, an apartment dwelling, or a dwelling room;

"residential use" means use or intended use for human habitation and ancillary purposes, and includes such use related to agricultural use, but does not include such use related to short stay rental use; for purposes of this definition "ancillary purposes" includes (but is not limited to) vehicle storage and equipment storage;

"row dwelling" means a residential building containing three or more dwelling units separated by vertical division, each of which units has a separate entrance to grade;

"semi-detached dwelling" means a residential building containing two dwelling units separated by vertical division each of which units has a separate entrance to grade;

"single detached dwelling" means a residential building containing one dwelling unit and not attached to another structure. Where it is attached to another structure by footings or below grade walls only, it shall be considered a single detached dwelling for the purposes of this by-law; and

"special care/special need residence" means a residence

- a) Containing two or more dwelling rooms, which rooms have common entrance from street level;
- b) Where the occupants have the right to use in common with other occupants, halls, stairs, yards, common room and accessory buildings;
- c) 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, charitable dwellings, group homes and hospices.

"use" means either residential use or non-residential use.

## RULES

2. For the purposes of complying with section 6 of the Act:

- (a) The rules for determining if a development charge is payable in any particular case and for determining the amount of the charge shall be in accordance with sections 4 through 10, and 21 through 24.
- (b) The rules for determining exemptions, relief, credits and adjustments shall be in accordance with sections 11 through 18.
- (c) The rules for determining the phasing in of development charges shall be in accordance with section 9.
- (d) The rules for determining the indexing of development charges shall be in accordance with sections 21 through 23.

- (e) The rules respecting the redevelopment of land shall be in accordance with sections 19 and 20.

#### LANDS AFFECTED

3. This By-law applies to all lands in the geographic area of the Region, being all of the lands shown on Schedule "A".

#### APPROVALS FOR DEVELOPMENT

4. (1) Development charges under this By-law shall be imposed against all development if the development requires:
- (a) the passing of a zoning by-law or of an amendment to a zoning by-law under section 34 of the *Planning Act*, R.S.O. 1990, c. P.13, as amended;
  - (b) approval of a minor variance under section 45 of the *Planning Act*;
  - (c) a conveyance of land to which a by-law passed under subsection 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, 1998*, S.O. 1998, c. 19, as amended; or
  - (g) the issuing of a permit under the *Building Code Act* in relation to a building or structure.
- (2) That nothing in this By-law prevents Council from requiring, in an agreement under section 51 of the *Planning Act* or as a condition of consent or an agreement respecting same under section 53 of the *Planning Act*, that the owner, at his or her own expense, shall install such local services related to or within the area to which a plan of subdivision relates, as Council may require, in accordance with the Region's applicable local service policy in the effect at the time.

#### DESIGNATION OF SERVICES

5. The categories of services (from among those for which the Region is responsible) for which a development charge is calculated under this By-law are as follows:

<u>Category</u>	<u>Principal Components</u>
General Government	growth-related studies
Police Services	facilities
Emergency Medical Services	ambulances facilities
Roads	roads road related structures and works
Water	supply storage treatment



Wastewater

distribution  
collection  
treatment

6. A development charge shall include:
- (a) a charge in respect of general government, police services, emergency medical services and roads;
  - (b) if water service is available, a charge in respect of water; and
  - (c) if wastewater service is available, a charge in respect of wastewater.

#### AMOUNT OF CHARGE

##### Amount of Charge – Residential

7. For development for residential purposes, development charges shall be imposed on all residential development, including a dwelling unit accessory to a non-residential development and the residential component of a mixed-use building, according to the number and type of dwelling units on the lands as set out in Schedule “B”.

##### Amount of Charge – Non-residential

8. For development for non-residential purposes, development charges shall be imposed on all non-residential development and, in the case of a mixed-used building, on the non-residential component of the mixed-use building, according to the type and gross floor area of the non-residential component as set out in Schedule “B”.

##### Phasing In of Development Charges

9. The development charge schedule in Schedule “B” is not being phased in.

#### TIMING AND CALCULATION AND PAYMENT

10. (1) The development charge under this By-law shall be calculated using the rate effective on the calculation date with respect to such development and shall be payable on the issuance of a building permit with respect to such development.
- (2) No Chief Building Official of any local municipality shall issue a building permit in respect of a development for which a development charge is payable pursuant to this By-law, until such development charge is paid.
- (3) The Region may, by agreement pursuant to section 38 of the Act, permit an owner to provide services in lieu of the payment of all or any portion of a development charge. The Region shall give the owner who performed the work a credit towards the development charge in accordance with the agreement subject to the requirements of the Act. In addition, the Region may, in the case of development located outside of the existing service area, require payment of an appropriate share of the costs of the required infrastructure within the existing service area, in addition to the costs external to the service area.

#### EXEMPTIONS

11. The following are exempt from the payment of development charges under this By-law by reason of section 3 of the Act:
- (a) lands and buildings owned by and used for the purposes of any local municipality or the Region or any local board unless such buildings or parts thereof are used, designed or intended for use primarily for or in connection with any commercial purpose; and

- (b) land and buildings owned by and used for the purposes of a board of education unless such buildings or parts thereof are used, designed or intended for use primarily for or in connection with any commercial purpose.
12. Notwithstanding any other provision of this By-law, no development charge is imposed under this By-law respecting:
- (a) granny flats;
- (b) parking structures;
- (c) lands and buildings used for agricultural use; notwithstanding this provision, a development charge shall be imposed in relation to agricultural use unless the owner of the fee simple of the land intends to actually use and occupy the land for such respective agricultural use;
- (d) that portion of a place of worship that is owned by a church or religious organization which is used exclusively as a place of worship only for religious services and any reception and meeting areas deemed to be used in connection with the worship space, such as a front hallway, attached meeting rooms and lobby;
- (e) lands and buildings which are used or intended to be used as municipal housing project facilities, as set out in section 110 of the *Municipal Act, 2001*, S.O. 2001, c. 25, O. Reg.603/06 under the *Municipal Act, 2001*, and the Region's *Municipal Housing Facility By-law* (No. 34-2004), all as may be amended, including those undertaken by organizations that receive funding for the affordable housing project through an agreement with Niagara Regional Housing following registration on title of the building by Niagara Region in the amount of the waived development charges; and
- (f) gas station canopies.

#### SPECIAL SITUATIONS

13. No development charge is payable for those lands and buildings for the Healthcare Complex on Fourth Avenue, St. Catharines owned by the Niagara Health System, being all of the lands more particularly described on Schedule "C1", save and except such buildings or parts thereof used, designed or intended for use primarily for or in connection with any commercial purpose.
14. No development charge is payable for those lands and buildings for the hospital on Main Street East, Grimsby, owned by West Lincoln Memorial Hospital, being all of the lands more particularly described on Schedule "C2", save and except such buildings or parts thereof used, designed or intended for use primarily for or in connection with any commercial purpose.

#### Rules With Respect to Designated Exemption Areas

15. (a) The applicable development charge shall be reduced by 50% for any development in relation to uses other than agricultural use that will be located within the boundaries of the designated areas as set out in Schedule "D" to this By-law or located on a brownfield or the development of a long term care home, as approved by Regional Council.
- (b) The boundaries in Schedule "D" reflect approved Community Improvement Plan boundaries and may be modified from time to time without amendment to this by-law.
- (c) The applicable development charge shall be reduced by the remaining 50% as approved by Regional Council for any development in relation to uses other than agricultural use that will be located within the boundaries of the designated areas as set out in Schedule

“D” to this By-law or located on a brownfield or the development of a long term care home where, in the opinion of Council of the Region, the development includes three or more of the following features:

“Intensification of an existing use,” meaning redevelopment or building addition so as to add floor area and/or a residential unit or units.

“Creation of mixed uses,” meaning redevelopment, addition or conversion so as to add a new compatible use or uses to a building or property. “Creation of mixed uses” also means new development that proposes a mixed use building or a mix of uses on the site.

“Contribution towards the creation of a walkable neighbourhood character,” meaning development, redevelopment, addition or conversion within a neighbourhood context that features one or more of the following: safe and clearly demarcated pedestrian access to and within the development site, building orientation and pedestrian access oriented toward the street, site and building access directly from the street without requiring passage across a driveway or parking area, street-oriented building façade that features fenestration and entranceways to create a sense of permeability and movement between the street and the building interior, contribution to the quality of the public space on the street by the provision of space for public assembly, street furniture, artworks and/or landscaping.

“Creation of a range of housing opportunities and choices,” meaning development, redevelopment, addition or conversion that adds multiple-unit housing types to the housing stock.

“Reduced setbacks from roadways,” meaning development, redevelopment or conversion that places the building façade at the front lot line or closer to the street than the mid-point between the street line and the existing building. Where there is an existing building line along the block-face that is set back from the street line, “reduced front setbacks from roadways” means placing the building façade closer to the street line than the mid-point between the street line and the established building line.

- (d) The features and program details may be modified from time to time, as approved by Regional Council, without amendment to this by-law.

#### Rules With Respect to Exemptions for Intensification of Existing Housing

16. Pursuant to the Act, no development charge is payable if the development is only the enlargement of an existing dwelling unit.
17. Pursuant to the Act and Regulation, no development charge is payable if the development is only the creation of:
- (a) one or two additional dwelling units in a dwelling unit in a single detached dwelling, where the total gross floor area of the additional dwelling unit or units is less than or equal to the gross floor area of the existing dwelling unit;
  - (b) one additional dwelling unit in a dwelling unit in a semi-detached dwelling or row dwelling, where the gross floor area of the additional dwelling unit is less than or equal to the gross floor area of the existing dwelling unit; or
  - (c) one additional dwelling unit in a dwelling unit in a duplex dwelling, multiplex dwelling or apartment dwelling, where the gross floor area of the additional dwelling unit is less than or equal to the gross floor area of the smallest existing dwelling unit in the residential building.

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### Rules With Respect to Exemptions for Industrial Expansion

18. (1) Pursuant to the Act, but subject to the other provisions of this By-law, if a development includes the enlargement of the gross floor area of an existing industrial building, the amount of the development charge that is payable in respect of the enlargement is determined in accordance with this section.
  - (2) If the gross floor area is enlarged by 50 percent or less, the amount of the development charge in respect of the enlargement is zero.
  - (3) If the gross floor area is enlarged by more than 50 percent, the amount of the development charge in respect of the enlargement is the amount of the development charge that would otherwise be payable multiplied by the fraction determined as follows:
    1. Determine the amount by which the enlargement exceeds 50 percent of the gross floor area before the enlargement.
    2. Divide the amount determined under paragraph 1 by the amount of the enlargement.
  - (4) The exemption shall not apply to expansions where the enlarged area is attached to the existing industrial building by means only of a tunnel, bridge, canopy, corridor or other passage-way, or through a shared below-grade connection such as a service tunnel, foundation, footing or a parking facility.

### Rules With Respect to Redevelopment – Demolitions

19. (1) If application is made for a building permit in respect of a parcel of land upon which a premise existed within five years prior to the date of such application, but which premise has been demolished or destroyed before the date of such application, then the amount of development charges payable upon issuance of the said building permit shall be reduced by the net amount, calculated pursuant to this By-law at the current development charge rates, that would be payable as development charges in respect of the demolished or destroyed premise, provided that such reduction shall not exceed the development charges otherwise payable. For purposes of this subsection, “net” means the excess of the development charges for premises constructed, over the development charges for premises demolished or destroyed.
- (2) If, at the time of payment of development charges in respect of a parcel of land, the owner of the said land provides written notification of his/her intention to demolish (within five years) a premise existing on that parcel at the time of such payment, then upon the subsequent assurance by the Treasurer of the relevant local municipality (or his or her designate) to the Region’s Treasurer, within five years after such payment, that such premise on such parcel has indeed been so demolished (and the particulars of such demolished premise), the Region shall refund to such owner a reduction in the development charges paid, which reduction is the amount, calculated pursuant to this By-law or a predecessor by-law of the Region, at the development charge rates in effect at the time of such payment, that would have been payable as development charges in respect of the premise demolished, provided that such reduction shall not exceed the development charges actually paid.

### Rules With Respect to Redevelopment – Conversions

20. If a development includes the conversion of a premise from one use (the “first use”) to another use, then the amount of development charges payable shall be reduced by the amount, calculated pursuant to this By-law at the current development charge rates, that would be payable as development charges in respect of the first use, provided that such reduction shall not exceed the development charges otherwise payable.

INDEXING

21. The amounts of development charges imposed pursuant to this By-law, as set out in Schedule "B" shall be adjusted annually without amendment to this By-law, in accordance with the Statistics Canada Quarterly Construction Price Statistics (catalogue number 62-007), as follows:
- (a) the initial adjustment shall be one year from the effective date of this By-law; and
  - (b) thereafter, adjustment shall be made each year on the anniversary of the effective date of this By-law.
22. For greater certainty, on September 1<sup>st</sup> of each year, the annual indexation adjustment shall be applied to the development charge as set out in Schedule "B", plus the accumulated annual indexation adjustments from previous years, if any.
23. Notwithstanding sections 21 and 22 of this By-law, Council of the Region may, for any particular year, waive the indexing for that particular year.

GENERAL


24. The following schedules to this By-law form an integral part of this By-law:
- Schedule "A" – Map of the Regional Municipality of Niagara
  - Schedule "B" – Development Charges
  - Schedule "C1" – Legal Description of the Healthcare Complex Lands on Fourth Avenue, St. Catharines
  - Schedule "C2" – Legal Description of the Hospital Lands on Main Street East, Grimsby
  - Schedule "D" – Designated Areas for Regional Development Charges (Partial) Exemption/Waiver (subject to section 15)
25. This By-law shall come into force and effect on September 1, 2012.
26. Pursuant to the Act, and unless it is repealed earlier, this By-law shall expire five years after the date it comes into force.
27. Each of the provisions of this By-law is severable and if any provision hereof should, for any reason, be declared invalid by the Ontario Municipal Board or a court of competent jurisdiction, the remaining provisions shall remain in full force and effect.
28. By-law 62-2009 is hereby repealed effective September 1, 2012.

THE REGIONAL MUNICIPALITY OF NIAGARA


\_\_\_\_\_  
(Regional Chair)

\_\_\_\_\_  
(Regional Clerk)

Passed: [date]

**Schedule "A"      Niagara  Region**

**Map of the Regional Municipality of Niagara**



## Schedule "B"

**Regional Development Charge Rates Table**

Amount of Development Charge

CATEGORY OF SERVICE	<i>Residential</i>				<i>Non-Residential per sq.ft. of gross floor area</i>			
	PER DWELLING UNIT			Per Dwelling Room	Commercial	Industrial	Institutional	Hotel/Motel
	Single Detached	Other Multiple	Apartment					
General Government	\$78	\$56	\$44	\$26	\$0.10	\$0.05	\$0.05	\$0.03
Police Services	\$252	\$182	\$141	\$83	\$0.33	\$0.15	\$0.16	\$0.10
Emergency Medical Services	\$74	\$54	\$42	\$24	\$0.03	\$0.01	\$0.01	\$0.01
Roads	\$5,540	\$2,853	\$1,922	\$1,208	\$6.02	\$2.71	\$2.83	\$1.81
<b>Subtotal</b>	<b>\$5,944</b>	<b>\$3,145</b>	<b>\$2,149</b>	<b>\$1,341</b>	<b>\$6.48</b>	<b>\$2.92</b>	<b>\$3.05</b>	<b>\$1.95</b>
Wastewater (in available)	\$3,178	\$2,292	\$1,782	\$1,042	\$3.81	\$1.70	\$1.79	\$1.15
Water (if available)	\$917	\$662	\$514	\$301	\$1.21	\$0.54	\$0.57	\$0.37
<b>Total - Region Wide Services</b>	<b>\$10,039</b>	<b>\$6,099</b>	<b>\$4,445</b>	<b>\$2,684</b>	<b>\$11.50</b>	<b>\$5.16</b>	<b>\$5.41</b>	<b>\$3.47</b>

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Bill 62

***Schedule "C1"***

***Legal Description of the Healthcare Complex  
Lands on Fourth Avenue, St. Catharines***

Part of Lot 1, Concession 4 Louth, described as Part 1 on Reference Plan 30R-4521, except Part 1 on Reference Plan 30R-13035, City of St. Catharines, Regional Municipality of Niagara;  
P.I.N. 46157-0344 (LT); and

Part of Lot 1, Concession 4 Louth, described as Part 5 on Reference Plan 30R-13035, City of St. Catharines, Regional Municipality of Niagara;  
P.I.N. 46157-0342 (LT)



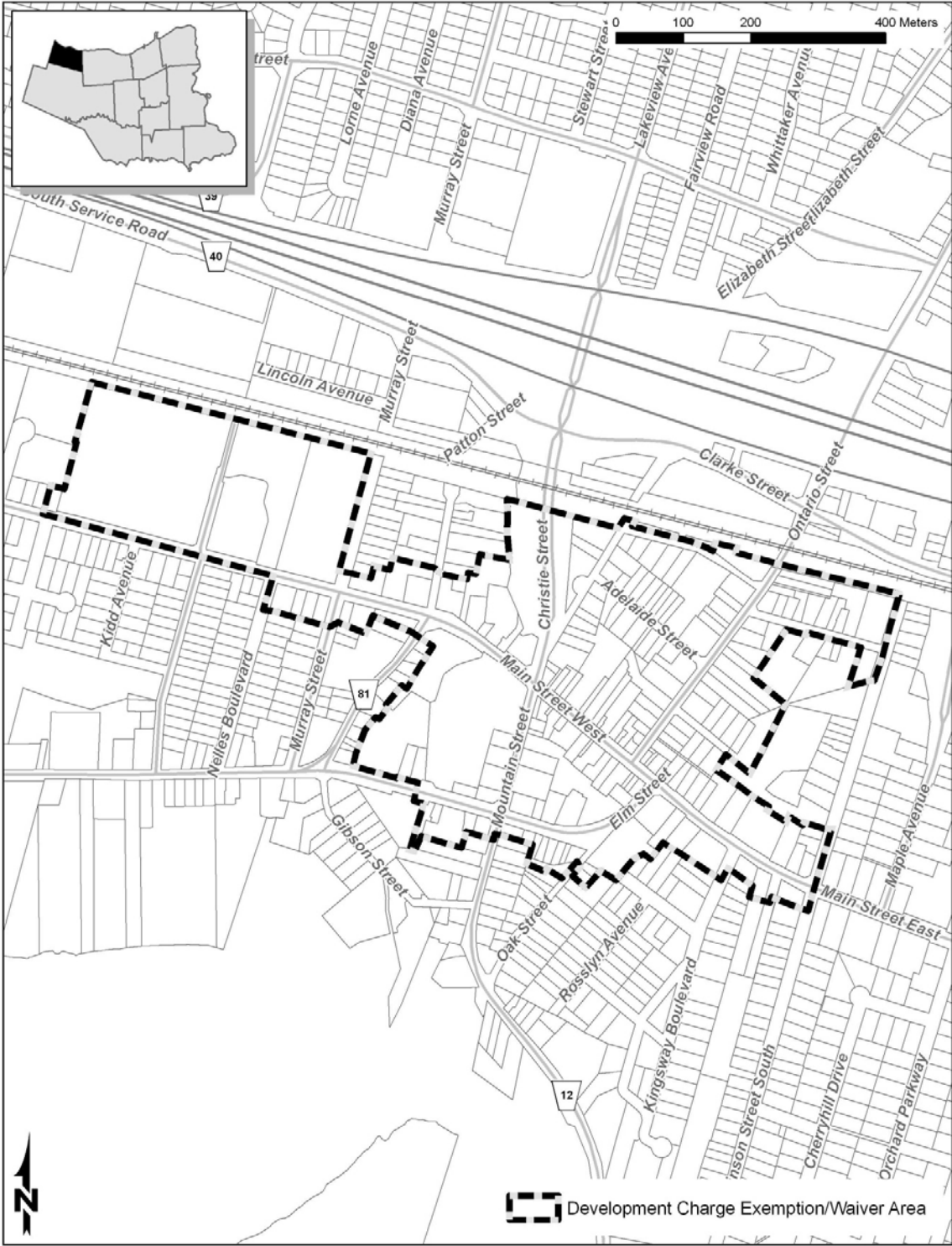
**Schedule "C2"**

**Legal Description of the Hospital  
Lands on Main Street East, Grimsby**

Part of Lot 5, Concession 1 North Grimsby, described as Parts 6, 7 and 8 on Reference Plan 30R-6103, together with RO151366, RO152759, RO153070, RO502734, RO556583 and RO152336, subject to RO598003 and RO751488, Town of Grimsby, Regional Municipality of Niagara;  
P.I.N. 46028-0180 (LT); and

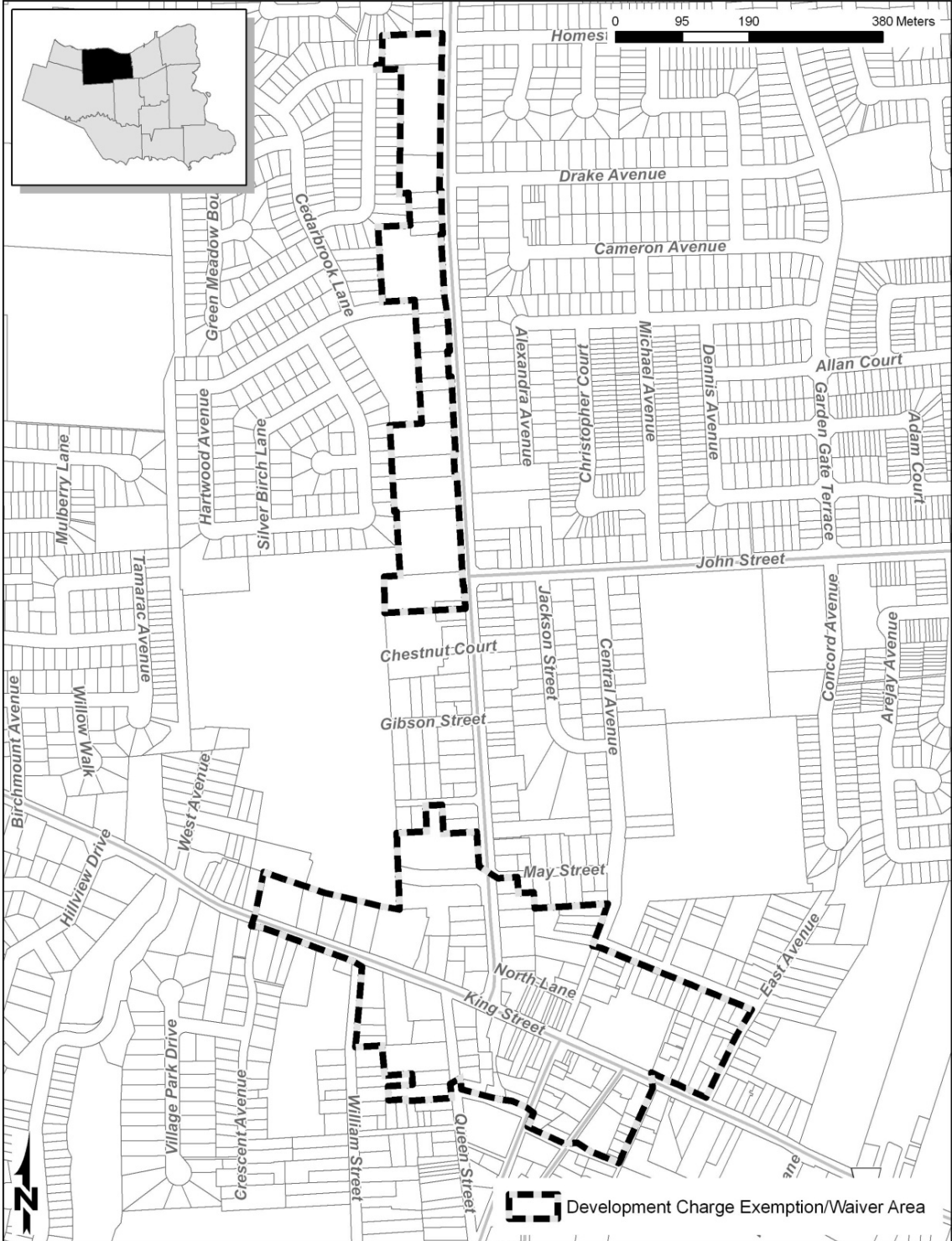
Part of Lot 5, Concession 1 North Grimsby, described as Parts 1 to 14 on Reference Plan 30R-12012, subject to RO502734 and RO598004, together with RO151366, RO152336, RO153384, RO152759, RO153070 and RO556583, Town of Grimsby, Regional Municipality of Niagara;  
P.I.N. 46028-0503 (LT)

**SCHEDULE "D"**  
**AREAS FOR (PARTIAL) REGIONAL DEVELOPMENT CHARGE EXEMPTION/WAIVER**  
**TOWN OF GRIMSBY**

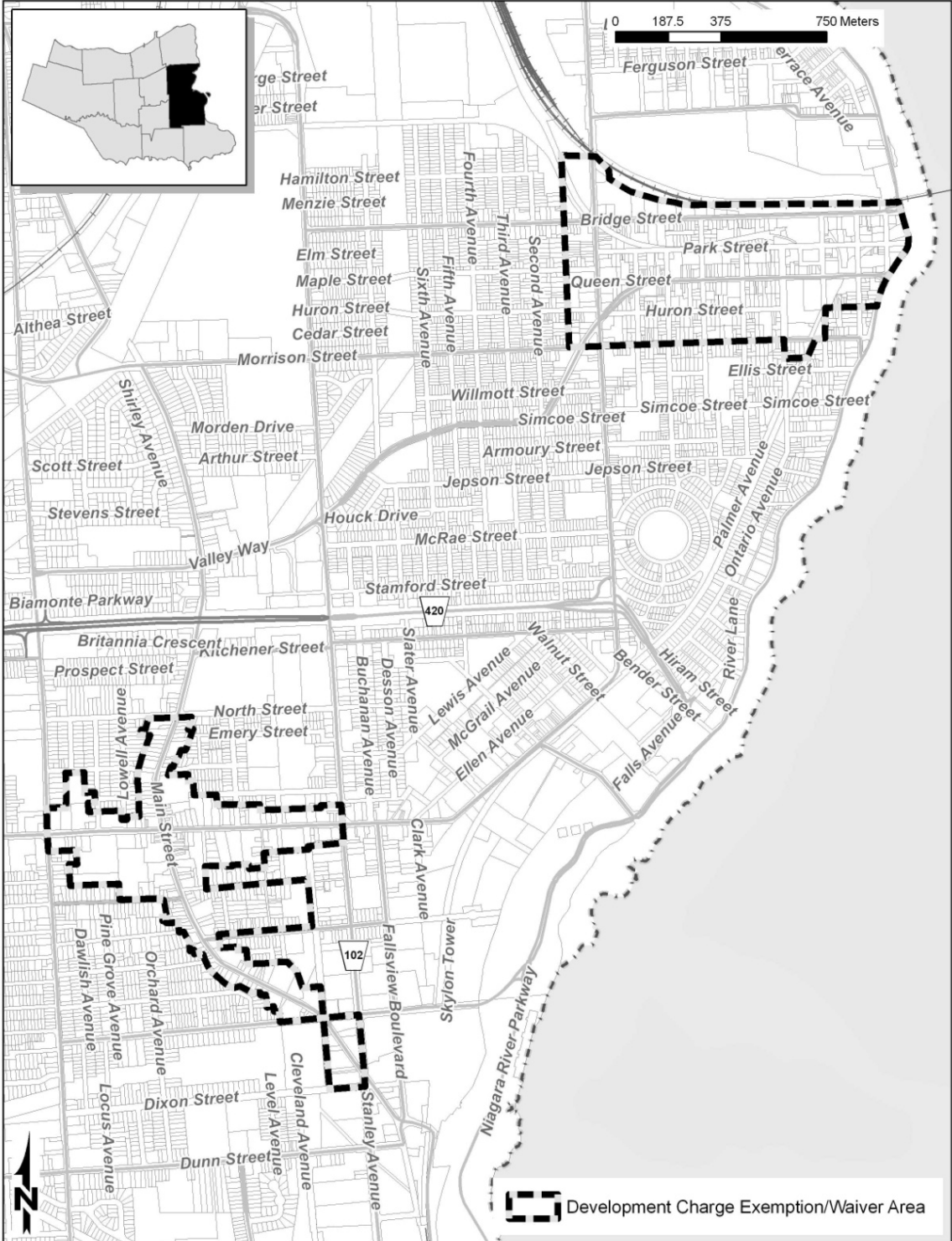


**SCHEDULE "D"**  
**AREAS FOR (PARTIAL) REGIONAL DEVELOPMENT CHARGE EXEMPTION/WAIVER**

**TOWN OF LINCOLN**

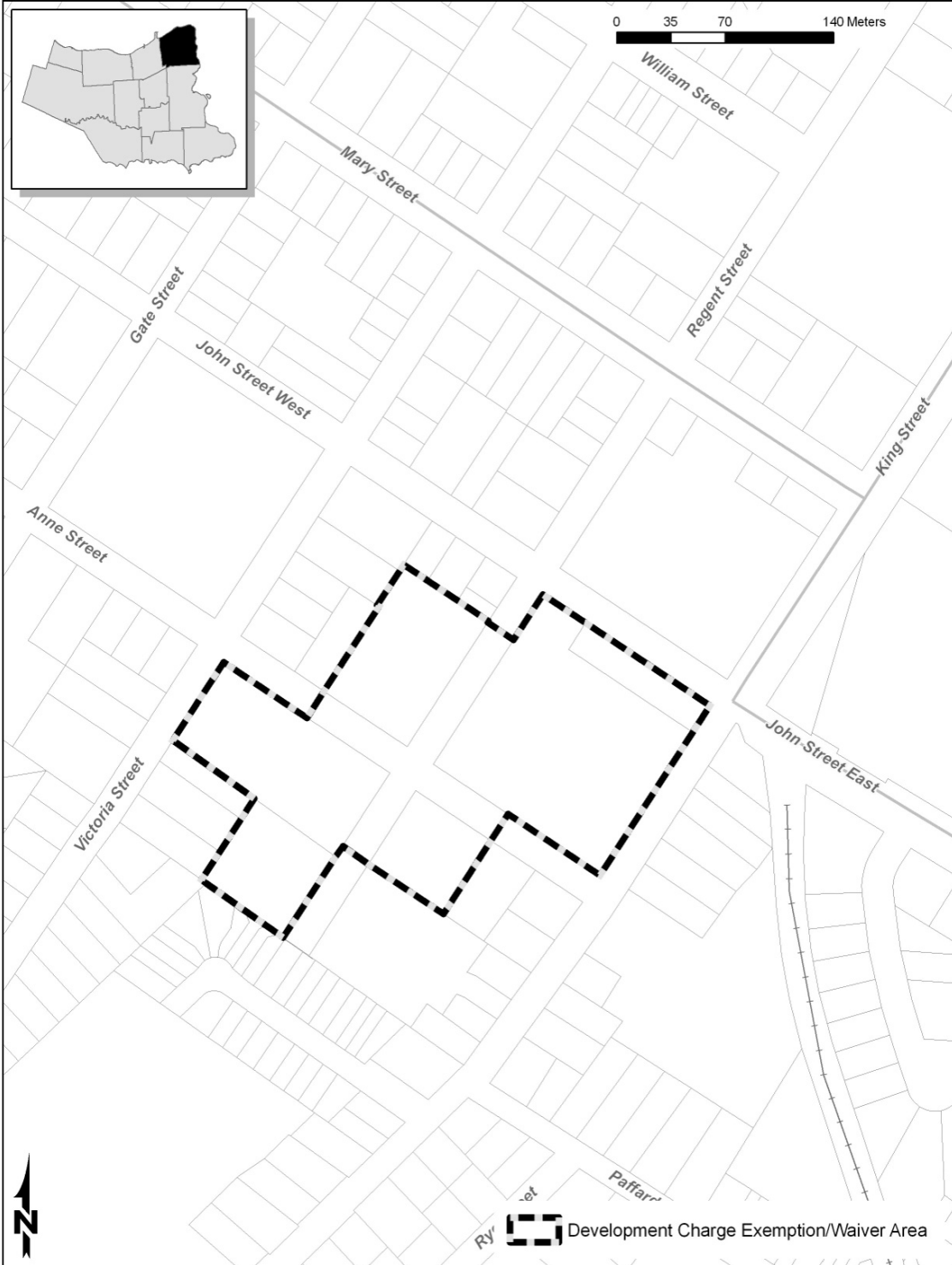


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**AREAS FOR (PARTIAL) REGIONAL DEVELOPMENT CHARGE EXEMPTION/WAIVER**  
**TOWN OF NIAGARA FALLS**



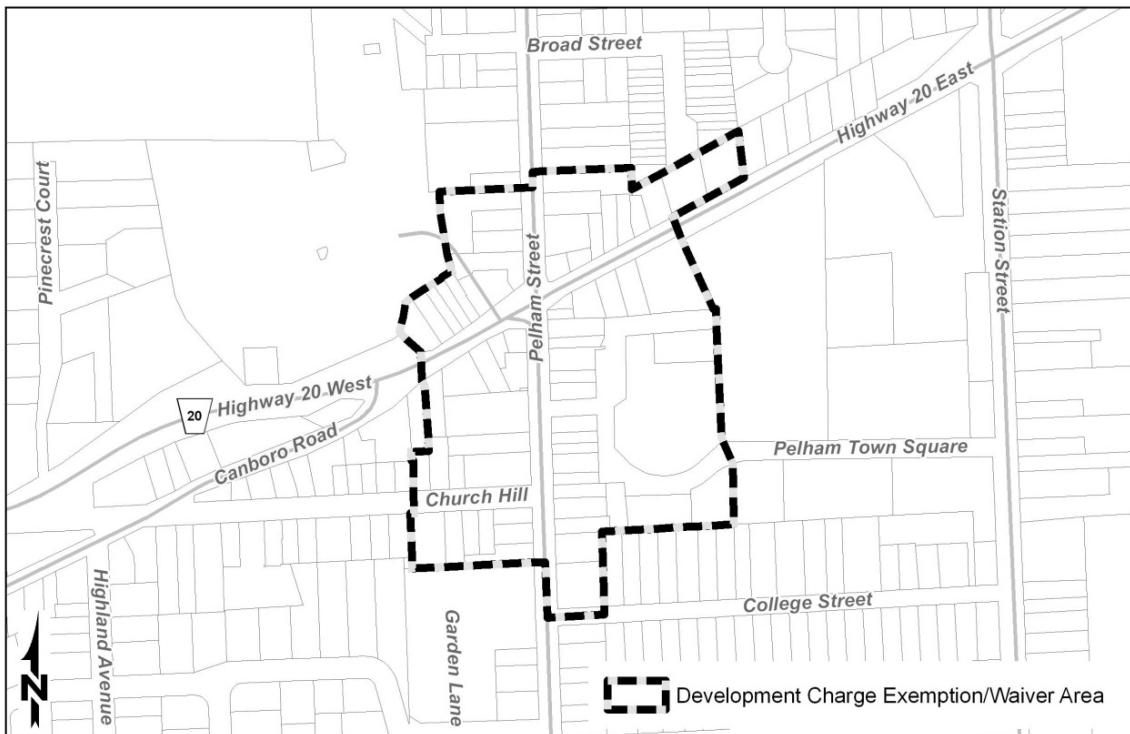
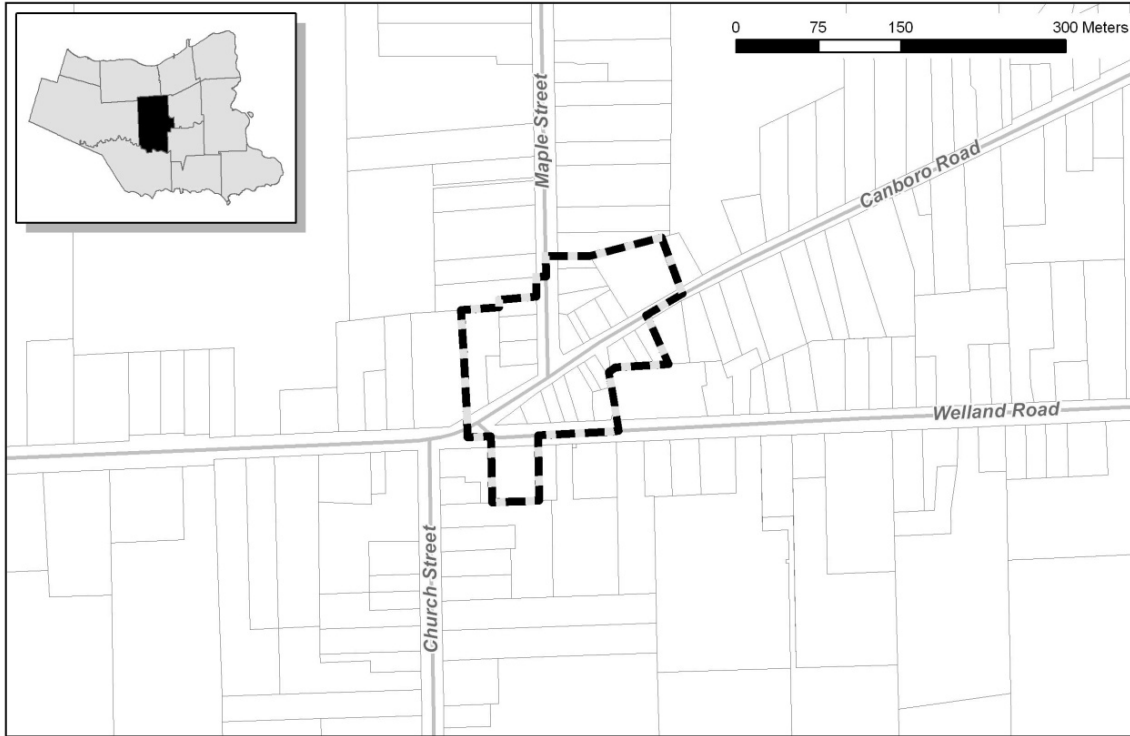
**SCHEDULE "D"**  
**AREAS FOR (PARTIAL) REGIONAL DEVELOPMENT CHARGE EXEMPTION/WAIVER**

**TOWN OF NIAGARA-ON-THE-LAKE**



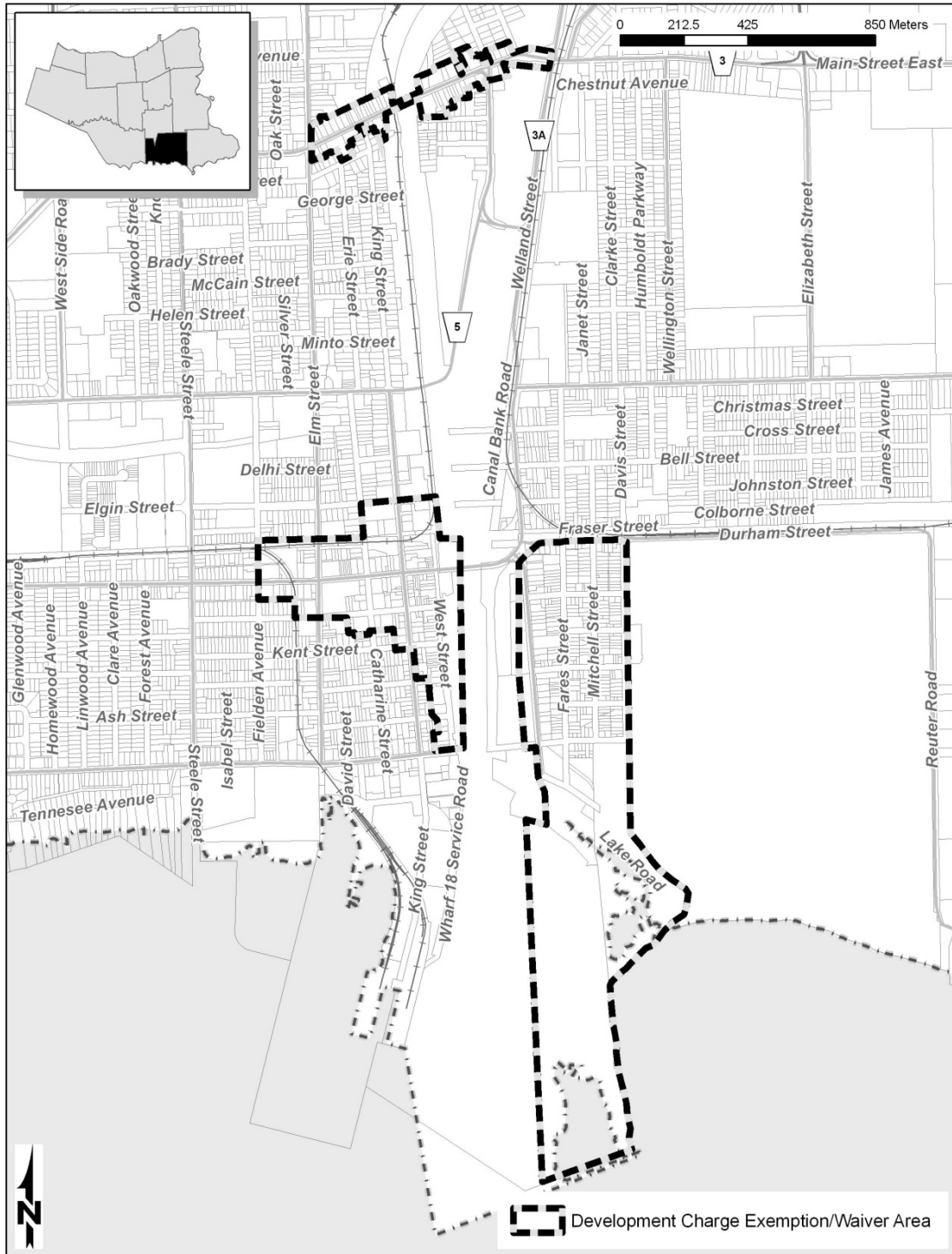
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**TOWN OF PELHAM**



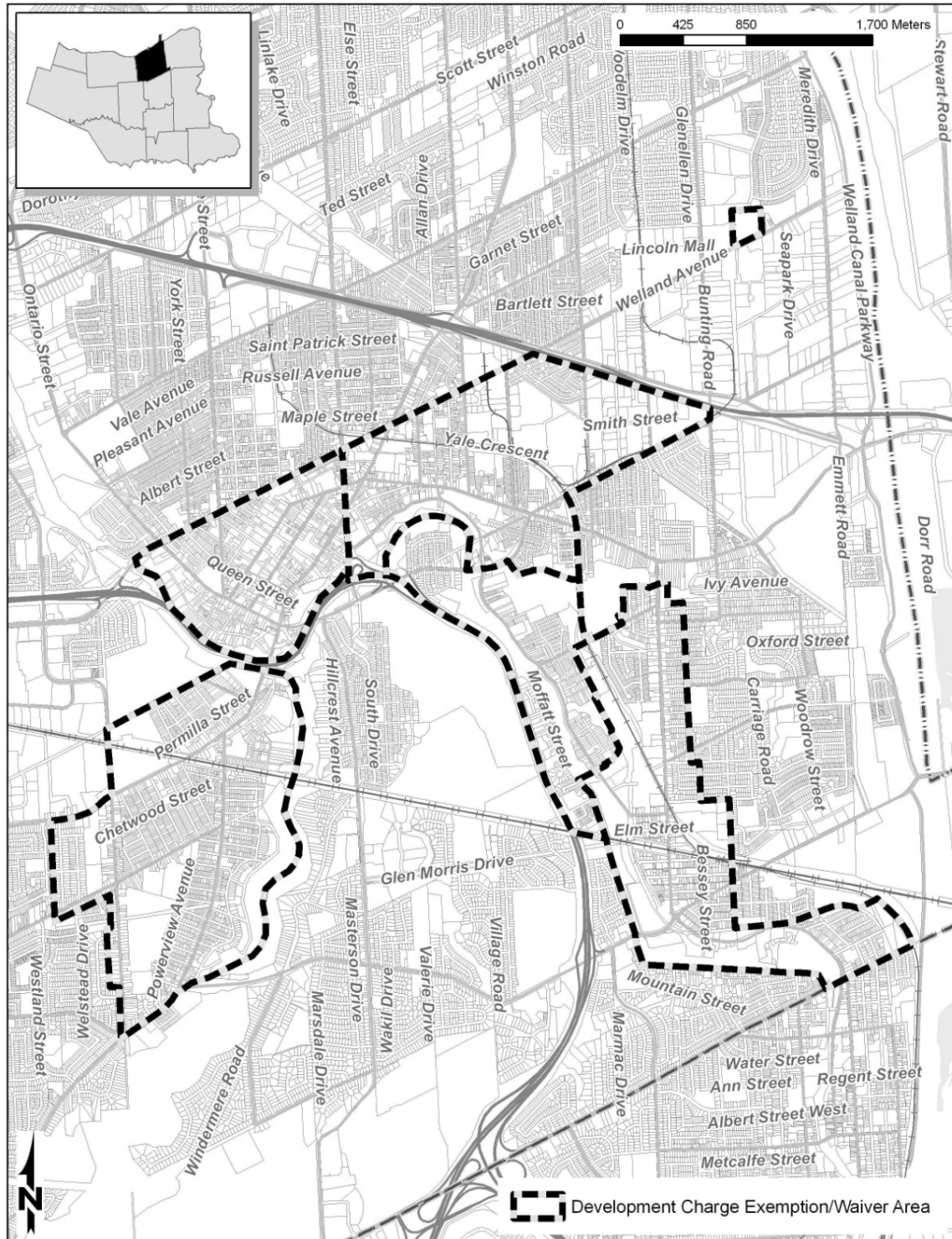
**SCHEDULE "D"**  
**AREAS FOR (PARTIAL) REGIONAL DEVELOPMENT CHARGE EXEMPTION/WAIVER**

**CITY OF PORT COLBORNE**



**SCHEDULE "D"**  
**AREAS FOR (PARTIAL) REGIONAL DEVELOPMENT CHARGE EXEMPTION/WAIVER**

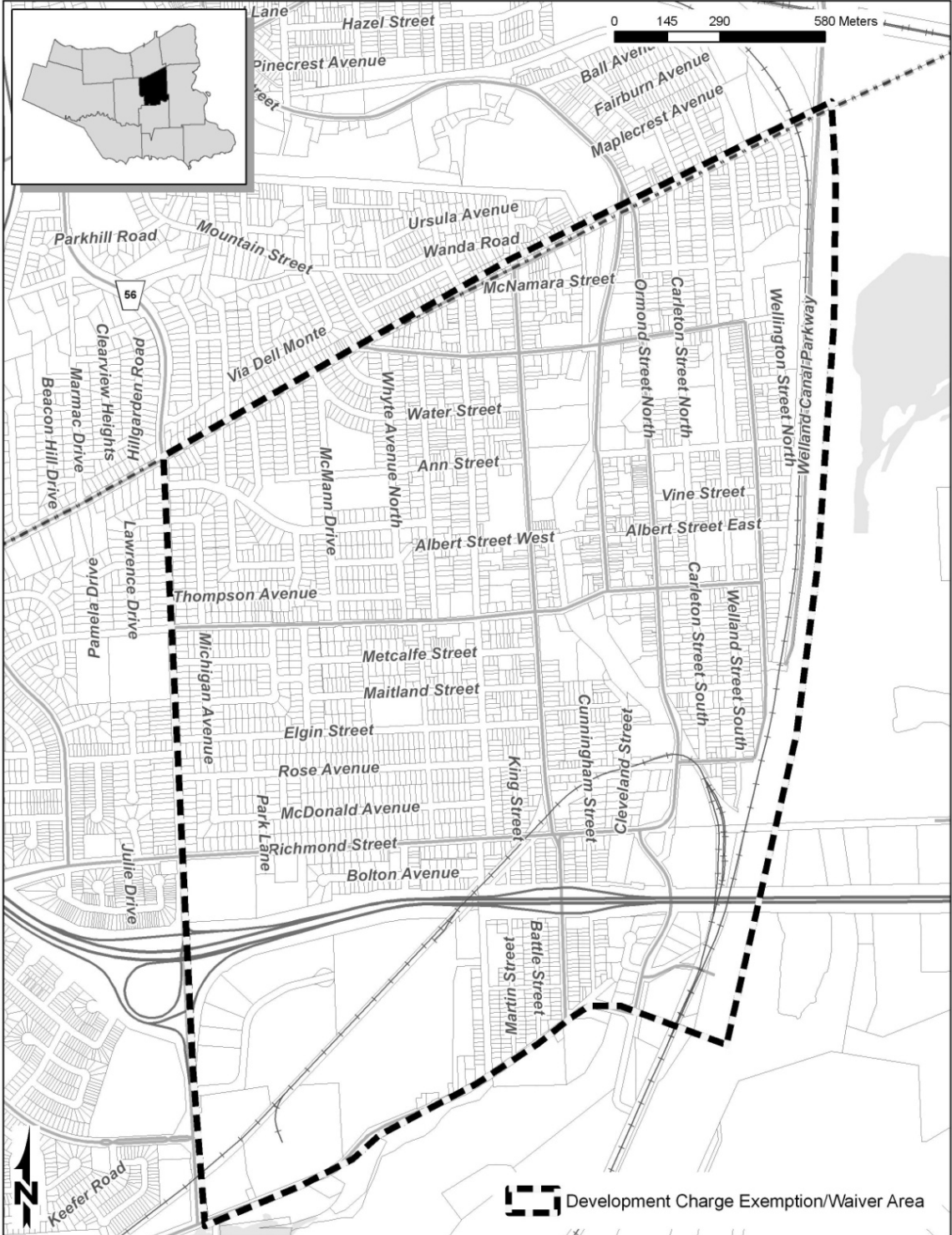
**CITY OF ST. CATHARINES**





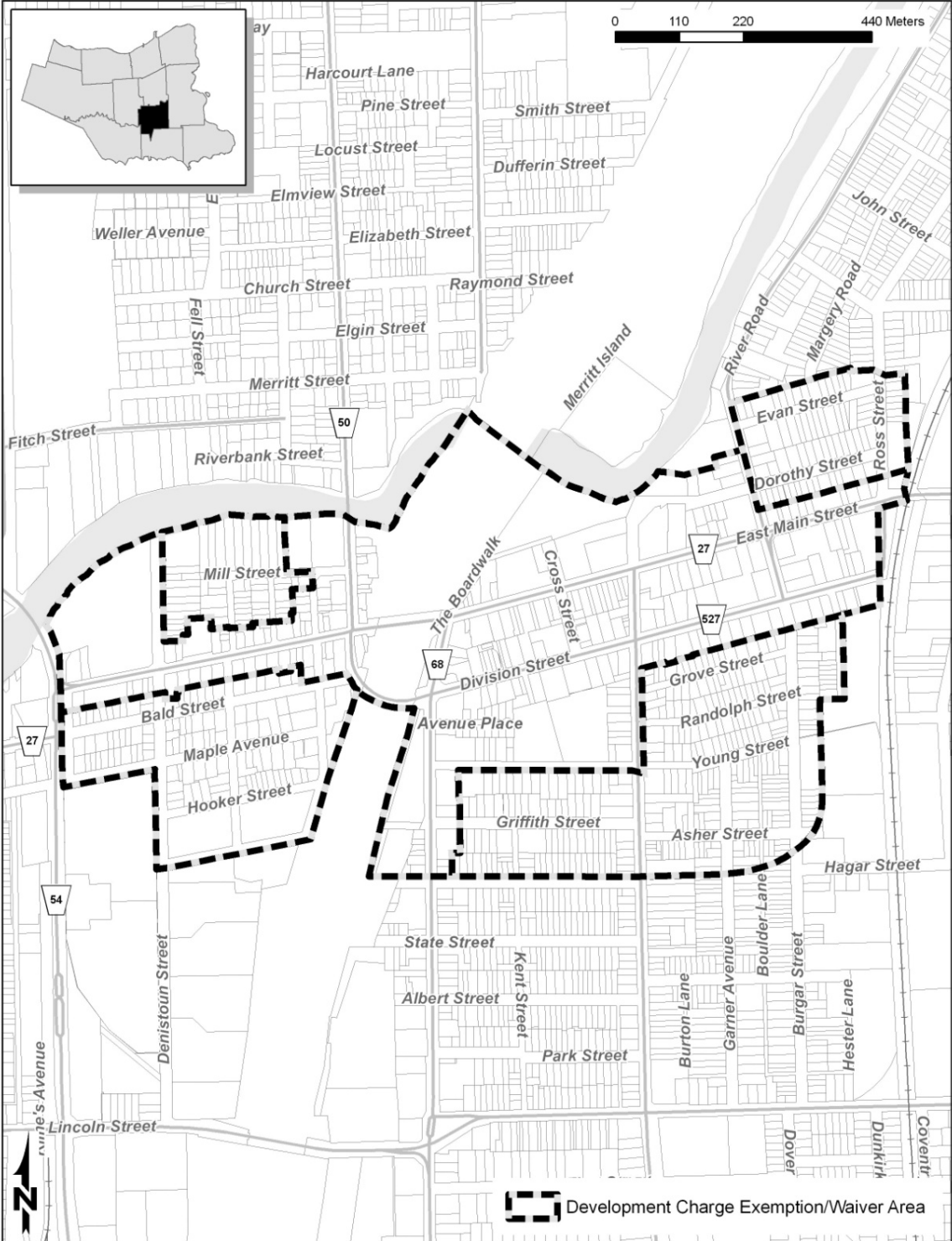
**SCHEDULE "D"**  
**AREAS FOR (PARTIAL) REGIONAL DEVELOPMENT CHARGE EXEMPTION/WAIVER**

**CITY OF THOROLD**



**SCHEDULE "D"**  
**AREAS FOR (PARTIAL) REGIONAL DEVELOPMENT CHARGE EXEMPTION/WAIVER**

**CITY OF WELLAND**



**SCHEDULE "D"**  
**AREAS FOR (PARTIAL) REGIONAL DEVELOPMENT CHARGE EXEMPTION/WAIVER**  
**TOWNSHIP OF WEST LINCOLN**

