

COUNTY OF PRINCE EDWARD

**WATER AND WASTEWATER
CONNECTION CHARGES STUDY**

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 **Planning for growth**

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1. INTRODUCTION

1. INTRODUCTION

1.1 Study Purpose

Watson & Associates Economists Ltd. (Watson) was retained by the County to prepare a Development Charges Background Study and Bylaw to recover the anticipated growth-related costs of services. As part of that undertaking water and wastewater services were reviewed and discussed with staff and Council. The study process identified that the County currently has a practice of recovering some water and wastewater capital costs through connection charges. While this practice appears to vary amongst the communities within the County these charges are levied on new users of the water and wastewater system, where applicable. In recognition of this current practice, it was determined that water and wastewater services should be removed from consideration in the DC bylaw and that the County's connection charge policy be reviewed to provide for a comprehensive review. This report provides the background and findings of that review.

1.2 Background

The County currently has a practice of recovering capital related costs through connection charges. As witnessed by the listing of current connection charges, identified below, the County imposes charges that vary by community. Some charges are local in nature and reflect the recovery of specific service extension projects, while other charges recover broader service provisions. Moreover, there are areas of the community where no connection charges are levied (e.g. no water connection charges in Picton and Wellington).

The County's connection charges are imposed on a uniform per connection basis for all new system users within a defined geographic area. For clarity, new system users include new developments (e.g. subdivision lots), infill developments on vacant lots and private service conversions. The implementation policies for these charges generally follow that new system users resulting from development (i.e. new development or infill) are required to pay the full amount of the charge at the time of connection, where those resulting from private service connections have the ability to pay the connection charges over a specified term with interest. With respect to the latter, once the term payment option has been selected the system user does not have the ability to pay out any outstanding balance during the specified term, as the

County has secured financing for these funds. Moreover, for developments that are in the benefiting area but have elected not to connect to the water or wastewater system charges are not levied until the time of service connection (with varying application of interest charges).

The following summarizes the connection charges currently in place within the County.

- Carrying Place/Consecon - \$5,350 water
- Rossmore/Fenwood - \$4,029 water
- Ameliasburg (Kente extension area only) - \$8,323 water
- Bloomfield - \$3,385 water
- Wellington - \$1,500 sewer
- Picton - \$1,500 sewer
- Picton-Hallowell (Upper Lake St. extension area only) - \$6,540 water and \$1,500 sewer

1.3 Statutory Authority

Municipalities have the statutory authority to impose water and wastewater connection charges under Part XII (Fees and Charges) of the *Municipal Act*. With the recent changes to the Act (i.e. Municipal Statute Law Amendment Act) municipalities have been provided with greater flexibility to design and impose fees and charges for services provided. This is witnessed in part by Part XII bylaws having natural person powers. The following subsections provide reference to the relevant statutory provision of the *Municipal Act* and associated regulation.

1.3.1 *Municipal Act – Part XII*

“By-laws re: fees and charges

391. (1) Without limiting sections 9, 10 and 11, those sections authorize a municipality to impose fees or charges on persons,
- (a) for services or activities provided or done by or on behalf of it;
 - (b) for costs payable by it for services or activities provided or done by or on behalf of any other municipality or any local board; and
 - (c) for the use of its property including property under its control.

Local board

- (1.1) A local board may impose fees or charges on persons,
- (a) for services or activities provided or done by or on behalf of it;
 - (b) for costs payable by it for services or activities provided or done by or on behalf of any municipality or other local board; and
 - (c) for the use of its property including property under its control.

Deferred benefit

- (2) A fee or charge imposed for capital costs related to services or activities may be imposed on persons not receiving an immediate benefit from the services or activities but who will receive a benefit at some later point in time.

Costs related to administration, etc.

- (3) The costs included in a fee or charge may include costs incurred by the municipality or local board related to administration, enforcement and the establishment, acquisition and replacement of capital assets.”

The above referenced sections of the *Municipal Act* indicate that it is permissible for municipalities to impose charges for the recovery of capital costs associated with services that are provided either directly or on its behalf. These capital costs can include costs associated with the initial establishment or acquisition of capital or for the replacement of existing capital assets. Moreover, the Act permits the imposition of capital charges on persons who receive an immediate benefit or a benefit at some later point (i.e. deferred benefit).

Unlike its predecessor legislation, Section 391 of the *Municipal Act* does not define a methodology for calculating the fee or charge quantum, nor for determining its distribution among the benefiting landowners. Fees and charges may now be determined at the reasonable discretion of the municipality following some general restrictions.

“Restriction, poll tax

393. No fee or charge by-law shall impose a poll tax or similar fee or charge, including a fee or charge which is imposed on an individual by reason only of his or her presence or residence in the municipality or part of it.

Restriction, fees and charges

394. (1) No fee or charge by-law shall impose a fee or charge that is based on, is in respect of or is computed by reference to,

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- (a) the income of a person, however it is earned or received, except that a municipality or local board may exempt, in whole or in part, any class of persons from all or part of a fee or charge on the basis of inability to pay;
 - (b) the use, purchase or consumption by a person of property other than property belonging to or under the control of the municipality or local board that passes the by-law;
 - (c) the use, consumption or purchase by a person of a service other than a service provided or performed by or on behalf of or paid for by the municipality or local board that passes the by-law;
 - (d) the benefit received by a person from a service other than a service provided or performed by or on behalf of or paid for by the municipality or local board that passes the by-law; or
 - (e) the generation, exploitation, extraction, harvesting, processing, renewal or transportation of natural resources.”

1.3.2 Ontario Regulation 584/06

Ontario Regulation 584/06 governs the fees and charges provision of the *Municipal Act*. The fees and charges regulation was significantly revised in 2006 with the corresponding changes to the Act. The regulation in its present form is less prescriptive than its predecessor. The previous regulation (i.e. O.Reg. 244/02) limited bylaws for water and waste services to a 1-year period, required public process notification and meetings to substantiate any charges and expressly limited any charges to the costs of service. Furthermore, the previous restrictions whereby a municipality did not have the power to impose fees or charges under Part XII of the Act relating to the allocation of sewage and water capacity have been removed. In keeping with the intent of the Municipal Statute Law Amendment Act, the changes to the fees and charges regulation provide municipalities with greater flexibility in determining its use.

Germane to this undertaking, it should be noted that in applying Section 391 of the *Municipal Act* for the recovery of capital costs a municipality must have regard for the associated regulation. Section 2(1) of the regulation indicates that a fee under the Act can not be imposed to recover capital costs which are also included in a development charge or front-ending agreement which is in effect before the composition of the fee. This clause is provided to avoid a duplication of fees and charges for the same works. As these costs are not included in the County's DC Bylaw no duplication in cost recovery exists.

“Capital costs

2. (1) A municipality and a local board do not have power under the Act to impose fees or charges to obtain revenue to pay capital costs, if as a result of development charges by-laws or front-ending agreements under the Development Charges Act, 1997 or a predecessor of that Act that was passed or entered into before the imposition of the fees or charges, payments have been, will be or could be made to the municipality or local board to pay those costs.”

2. WATER AND WASTEWATER CONNECTION CHARGES

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2.1 Connection Charge Rationale

The rationale for imposing connection charges is to recover the capital costs of services being provided to the benefit new system users. As defined in the introduction these new system users may be in the form of new building development or conversion of private water and wastewater systems to municipal services. Regardless of the form of the new system user the implicit demands on the municipal service are the same and therefore the treatment in the assignment of benefits should be consistently applied.

Recognizing that the water and wastewater systems are designed and constructed to ultimately accommodate full buildout of the urban service area this would suggest that there is a common average cost associated with service provision. This average cost basis of full development reflects the long-term investment in municipal services by the County which would be, in part, to the benefit of incremental system growth. As such, the charge should be determined on an average cost basis to include both lateral (i.e. distribution/collection) and vertical works (i.e. facilities). In practice these costs may reflect new infrastructure requirements to accommodate system growth (e.g. watermain extensions) and/or oversized infrastructure currently in place that will require future replacement (e.g. water treatment plant). These costs are consistent with the provisions for capita cost recovery under the Municipal Act, in that they may include both establishment and replacement costs. Imposing a connection charge on an average cost basis provides for an equitable recovery of capital service costs from all new users (i.e. both future and existing). The average cost of service provision would be contributed by future system users, with existing users contributing to the subsequent replacement of their share of existing assets.

In designing the charge Council may consider the implementation of connection charges on a service area-specific basis or on a uniform County-wide basis (only applicable within the broader municipal service area). The latter would be consistent with the County's current water and wastewater rate billing practice which recognizes the broader servicing needs of the municipality. This approach may also be beneficial in removing any potential impacts on location decisions. In the following section the average cost connection charges are provided on an area-specific and uniform County-wide basis.

2.2 Connection Charge Calculations

Developing a connection charge requires the assessment of the average cost of service provision for water and wastewater services. To sufficiently identify these service costs, the analysis considered the anticipated full cost of urban service area development. This assessment consisted of a review of the existing system users and infrastructure currently provided and as well as the incremental infrastructure requirements to service anticipated development to full buildout.

For the assessment of existing infrastructure, the County's infrastructure database was consulted for replacement costs. The replacement value lateral and vertical works of the current water system is valued at approximately \$86.1 million with the wastewater system valued at approximately \$56.5 million. In total these works service approximately 4,032 water users and 2,688 wastewater users, based on current system billing records. It should be noted that users are defined as service connections and not occupants. In aggregate this represents an average cost per water system user of approximately \$21,300 and per wastewater system user of approximately \$21,000. On a service area-specific basis, the per user investments ranges between \$16,000-\$58,000 for the water system and \$19,200-\$21,900 for the wastewater system. These average costs variances may be based on the size of the system and customers with larger systems recognizing economies of scale benefits. Table 2-1 provides a summary of the per user costs by service area.

Table 2-1
County of Prince Edward
Summary of Infrastructure Replacement Costs per System User

Location	Existing Replacement Value	Current System Customers	Replacement Value per Customer
<u>Water</u>			
Picton	47,815,028	2,395	19,965
Wellington	19,020,800	903	21,064
Ameliasburg	3,424,000	59	58,034
Rossmore/Fenwood Gardens Water	6,418,100	401	16,005
Peat's Point Water	803,750	19	42,303
Consecon/Carrying Place Water	8,575,000	255	33,627
Total Water	86,056,678	4,032	21,343
<u>Wastewater</u>			
Picton	40,091,731	1,834	21,860
Wellington	16,434,592	854	19,244
Total Wastewater	56,526,324	2,688	21,029

The anticipated amount of development for full build-out of the urban service area was determined based on the 2007 Development Charges Background Study Growth Forecast. The basis for the growth forecast was the Registered/Draft Approved Plan of Subdivisions provided by Prince Edward County Planning Services Department and the "Prince Edward County Growth and Servicing Strategy, June 2003". The results of this forecast anticipate an additional 4,551 water system users and 4,364 wastewater system users, included both residential and non-residential development (i.e. industrial, commercial and institutional). The majority of this growth in system users is anticipated to occur in the communities of Picton and Wellington.

To assess the incremental costs associated with build-out of the urban service area, the water and wastewater servicing needs were discussed with County staff. Based on the anticipate development identified above, the following table summarizes the projects that were identified with the incremental growth-related cost share. The incremental growth-related cost share reflects the deduction of existing infrastructure replacement costs from the gross capital cost estimates, which are presumably contained in Table 2-1. These costs reflect the broader municipal infrastructure requirements to service new system users, local service costs (e.g. watermains internal to plans of subdivision) are not included in these figures as they would continue to be recovered under conditions of planning approval.

Table 2-2
County of Prince Edward
Summary of Incremental Water Infrastructure Capital Needs

Water System	Gross Capital \$	Less: Existing Infrastructure Replacement \$	Incremental Growth- Related Cost \$
<u>Picton</u>			
2 Water Tower/Booster Stn. (New Development - E of John St., N of Cty. Rd. 8)	1,000,000	-	1,000,000
Booster Station Upgrades (Cty Rd. 22 and London Ave.)	300,000	-	300,000
Watermain Replacement and Oversizing 6" to 10" (Walton St. to End of Washburn St.)	232,000	210,083	21,917
Watermain Extension 10" (End of Washburn St. to New Bypass Rd.)	185,600	-	185,600
Watermain Replacement and Oversizing 6" to 10" (King St. to End of Bowery St.)	139,200	126,050	13,150
Watermain Extension 10" (End of Bowery St. to New Bypass Rd.)	324,900	-	324,900
Watermain Replacement and Oversizing 6" to 10" (Centre St. - King St. to E of Century Dr.)	232,000	210,083	21,917
Cross Connect Watermains (Cty. Rd. 1 and Loyalist Prkwy)	150,000	-	150,000
Picton Subtotal	2,563,700	546,216	2,017,484
<u>Wellington</u>			
Water Tower (New Development - W of Prince Edward Dr., N of Empire Blvd.)	1,500,000	-	1,500,000
Watermain Extension 10" (Prince Edward Dr. - Main St. to New Development)	185,600	-	185,600
Watermain Extension 10" (Main St. - WTP to West St.)	464,100	-	464,100
WTP Upgrades (pumping)	300,000	-	300,000
Wellington Subtotal	2,449,700	-	2,449,700
<u>Consecon</u>			
Watermain Extension 8" (Stinson Block Rd. - Cty. Rd. 1 to SW End of New Development)	374,500	-	374,500
Watermain Extension 8" (Loyalist Prkwy. - Cty. Rd. 29 to Lakeside Dr.)	330,400	-	330,400
Consecon Subtotal	704,900	-	704,900
<u>Rossmore /Fenwood</u>			
Watermain Extension 8" (Cty. Rd. 28 - Hwy. 62 to Weatherhead Rd.)	440,600	-	440,600
Rossmore /Fenwood Subtotal	440,600	-	440,600
WATER SYSTEM TOTAL	6,158,900	546,216	5,612,684

Table 2-3
County of Prince Edward
Summary of Incremental Wastewater Infrastructure Capital Needs

Wastewater System	Gross Capital \$	Less: Existing Infrastructure Replacement \$	Incremental Growth- Related Cost \$
<u>Picton</u>			
Pumping Station Upgrades (W of Bridge St., S of Laird Lane)	450,000	-	450,000
Sewermain Replacement and Oversizing 8" to 10" (Lalor St. to Maitland St.)	417,700	396,526	21,174
Sewermain Replacement and Oversizing 8" to 10" (Walton St. to End of Washburn St.)	232,000	220,240	11,760
Sewermain Extension 10" (End of Washburn St. to New Bypass Rd.)	185,600	-	185,600
Sewermain Replacement and Oversizing 8" to 10" (King St. to End of Bowery St.)	139,200	132,144	7,056
Sewermain Extension 10" (End of Bowery St. to New Bypass Rd.)	324,900	-	324,900
Pumping Station (New Development - Paul St. and New Bypass Rd.)	600,000	-	600,000
Pumping Station (New Development - Jasper Ave. and New Bypass Rd.)	600,000	-	600,000
Wastewater Treatment Plant	22,000,000	15,516,471	6,483,529
Picton Subtotal	24,949,400	16,265,380	8,684,020
<u>Wellington</u>			
Sewermain Extension 10" (Prince Edward Dr. - Main St. to New Development)	232,000	-	232,000
Inflow & Infiltration Improvements	500,000	75,000	425,000
Wellington Subtotal	732,000	75,000	657,000
WASTEWATER SYSTEM TOTAL	25,681,400	16,340,380	9,341,020

In total the costs of anticipated lateral and vertical works for incremental system growth is approximately \$5.6 million for the water system and \$9.3 million for the wastewater system. Based on the anticipated system growth of 4,551 water system users and 4,364 wastewater users, the average cost per water system user is approximately \$1,200 and per wastewater system user is approximately \$2,141. These average costs are considerably lower than the average investment cost for existing system users, principally because the service benefits of existing infrastructure (i.e. oversizing) have not been included in the incremental cost needs. This reflects an inherent inequity of a marginal cost system. Table 2-4 provides a summary of the incremental per user costs by service area.

Table 2-4
County of Prince Edward
Summary of Incremental Infrastructure Costs per System User

Location	Growth Related Costs	Anticipated Development to Buildout	Growth Related Cost per Customer
<u>Water</u>			
Picton	2,017,484	3,138	643
Wellington	2,449,700	1,226	1,999
Ameliasburg		38	-
Rossmore/Fenwood Gardens Water	440,600	93	4,738
Peat's Point Water			
Consecon/Carrying Place Water	704,900	56	12,588
Total Water	5,612,684	4,551	1,233
<u>Wastewater</u>			
Picton	8,684,020	3,138	2,767
Wellington	657,000	1,226	536
Total Wastewater	9,341,020	4,364	2,141

Calculating the full average cost of service for water and wastewater systems, the estimated buildout value of infrastructure was applied to the full development potential of the urban service area. As a result the calculated average charge and therefore the maximum justifiable uniform connection charges would be \$10,681 for water services and \$9,341 for wastewater services. These charges vary by system and are provided in Table 2-5.

Table 2-5
County of Prince Edward
Summary of Buildout Infrastructure Costs per System User

Location	Total Growth and Repl. Value	Total Buildout System Customers	Total Cost per Customer
<u>Water</u>			
Picton	49,832,512	5,533	9,006
Wellington	21,470,500	2,129	10,087
Ameliasburg	3,424,000	97	35,299
Rossmore/Fenwood Gardens Water	6,858,700	494	13,884
Peat's Point Water	803,750	19	42,303
Consecon/Carrying Place Water	9,279,900	311	29,839
Total Water	91,669,362	8,583	10,681
<u>Wastewater</u>			
Picton	48,775,751	4,972	9,810
Wellington	17,091,592	2,080	8,219
Total Wastewater	65,867,344	7,052	9,341

2.3 Bylaw Implementation and Policies

The implementation of a connection charges bylaw under Part XII of the Municipal Act would be required to impose the calculated charges. Implementation of the bylaw will require a number of policy decisions to be considered by Council. These options pertain to the timing of collection of the charges, payment options and transition from existing connection charge policies. These options are presented in the following sub-sections.

2.3.1 *Timing of Collection*

The timing of collection for connection charges can be determined by Council. Current practice within the County is to collect charges at the time of service connection. The *Municipal Act* allows municipalities to charge persons who derive an immediate or deferred benefit. Immediate benefiting properties would be covered under the current collection practice, however those properties deriving a deferred benefit (i.e. available to be connected but remain unconnected) are not charged until a service connect is made. With respect to the latter, the benefit of readily available municipal servicing may provide the owner with an increase in market value. As such the County may consider imposing all or a portion of these costs to those properties that front onto municipal services but do not wish to connect. Alternatively the same could be realized with mandatory connection requirements.

The County may also wish to consider the imposition of the connection charge on new developments as a condition of planning approval. This would serve to accelerate the timing of collection on subdivisions that may develop over an extended period of time.

2.3.2 *Payment Options*

There are commonly two payment options that are utilized for connection charges, these include a commuted charge (i.e. full up-front payment) and instalment charges. The commuted charge option specifies that at the time of connection (or within a reasonable period of time after connection) the property owner would pay the full cost of the imposed charge(s). The instalment charge typically allows the property owner to pay the connection charges over a specified period of time (e.g. 10-year period). These annual costs are then typically recovered through the annual water and wastewater billing process. Those electing to use the instalment payment option are typically assessed interest costs for the period at the municipal borrowing rate.

The current practice of the County is that the full amount of the connection charges are payable at the time of service connection except in situations where localized private service conversions have occurred. In these circumstances the benefiting property owners have been allowed to choose an instalment payment option with interest charges. The current practice seems to suggest a distinction in its application to new development and existing residents.

2.3.3 Transitional Issues

The County currently has situations where a connection charge bylaw has been adopted for localized capital recoveries. As these bylaws have been adopted to recover specific project costs there is a transitional issue that arises in changing the connection charge policy. As part of the implementation of this connection charge policy, Council should give consideration to the application of the charge to specific areas where these bylaws exist. As an example, where a bylaw has been passed to impose charges on benefiting properties with requirement for future payments, the terms of the current bylaw should be maintained. Also where charges have been paid upfront by property owners that have not yet connected, Council will have to give consideration to whether additional connection charges should be assessed.

As the costs included in the study are denominated in 2007 values, Council may also wish to consider the inclusion of indexing provisions within the connection charge bylaw. The inclusion of this provision would ensure that the charges are reflective of the service costs realized at the time of connection. The Statistics Canada Construction Price Statistics is the index that is used for annual adjustments to municipal development charges and would be the recommended index for this purpose.

3. RECOMMENDATIONS

3. RECOMMENDATIONS

3.1 Recommendations

The process undertaken has determined a maximum justifiable average cost charge that could be imposed under the authority of the Municipal Act through bylaw. The uniform service area charge is calculated at a maximum amount of \$10,681 for water and \$9,341 for wastewater. This compares with current water connection charges of \$0-\$8,323 and wastewater connection charges of \$1,500. It is recommended that Council give consideration to the calculated charges provided herein and develop a policy giving consideration to the number of implementation policy issues presented including:

- Area-specific vs. uniform service area charges;
- Timing of connection charge collection;
- Payment options; and
- Transitional issues.