

# Request for Decision City Council





Type of Decision									
Meeting Date	February 28, 2007				Report Date	February 21, 2007			
Decision Requested	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	Priority	<input checked="" type="checkbox"/>	High	<input type="checkbox"/>	Low
	Direction Only				Type of Meeting	<input checked="" type="checkbox"/>	Open	<input type="checkbox"/>	Closed

Report Title
Kingsway Sewer and Water Enhancements

Budget Impact / Policy Implication		Recommendation	
<input checked="" type="checkbox"/>	This report has been reviewed by the Finance Division and the funding source has been identified.		
Financing options are outlined in the report.		<p>It is recommended that:</p> <ul style="list-style-type: none"> <li>the City proceed with the installation of new water and wastewater services along the Kingsway from Falconbridge Road to Moonlight Avenue, in conjunction with the 2007 road widening project, at an estimated cost of \$2.565 million;</li> <li>the City fund its share of this project (\$768,800) through the 2006 Water Capital Envelope and the 2008 Water and Wastewater Capital Envelopes;</li> <li>proceed with the necessary downstream upgrading works (estimated at \$3 million) as the projects are required, funding the City's share from the appropriate Capital Envelopes, and financing the recoverable portion through the Capital Fund;</li> </ul>	
<input checked="" type="checkbox"/>	Background Attached	<input checked="" type="checkbox"/>	Recommendation Continued

Recommended by the Department	Recommended by the C.A.O.
 R.G. (Greg) Clausen, P. Eng., Acting GM of Infrastructure  L. Hayes, CFO/Treasurer	 Mark Mieto Chief Administrative Officer

Date: February 21, 2007

Report Prepared By	Division Review
 R.G. (Greg) Clausen, P. Eng., Acting GM of Infrastructure  L. Hayes, CFO/Treasurer	

**Recommendation (continued):**

- ▶ recover \$3.8 million, based on a 6% interest rate and a 20-year recovery period, through a Section 391 Charge, as outlined in Option 2 of this report and in the Hemson Report dated February 2007;
- ▶ collect these fees at the building permit stage for all new residential, commercial and industrial development in the catchment area; and
- ▶ have the Section 391 Charge By-law prepared for Council approval.

**Overview**

On August 9, 2006, the City approved the major reconstruction of the Kingsway from Falconbridge Road east to the 17E By-Pass near Coniston. The reconstructed roadway will change the existing two lane roadway to a four lane roadway with centre lane. The centre lane will provide a left turning lane at Third Avenue, Mid-North Motors, Levesque Street and Moonlight Avenue as well as at strategic business entrances such as at Mid-North Motors. Where the left turn lane is not required, a raised median will be provided for safety and aesthetic purposes. Landscaping will be provided along the median and roadway at strategic locations to improve the visibility of this major east entrance to the City. In built-up residential areas, the roadway will be constructed to full urban section with curbs, gutters, storm sewers, sidewalks and street lighting.

The cost estimate for this road reconstruction project is \$ 12.9 million which includes \$4 million in total COMRIF funding from both the provincial and federal governments. Shortly after the COMRIF funding for this project was announced, and detailed design was completed and road tender awarded, the Growth and Development Department and Infrastructure Department reviewed the option of fully servicing this section of roadway by installing sewer and water services. By installing the sewer and water services in conjunction with the road work currently underway, major disturbance and reconstruction of at least one lane of the new road would be avoided. Also, major disruption in traffic movement for local residents, commercial and tourist traffic would be avoided.

Staff are confident that the potential for development along this section of the Kingsway would be greatly enhanced if the lands were fully serviced with sewer and water. Similarly, the value of the property would be increased proportionately. The potential benefitting property owners confirmed staff's opinion during two public meetings as discussed later in this report.

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If the sewer and water services along the Kingsway were installed at a later date there would be major disruptions to traffic as well as commercial disruptions, traffic congestion, and disturbance to residents, not to mention the significant costs for digging up/disturbing new infrastructure.

The sewer and water services would be sized to accommodate all future growth along this corridor. Strategic cross connections across the roadway would be installed at this time to allow future connections to the services as growth occurs without having to disturb the new roadway.

The sanitary services from approximately Mid-North Motors will flow by gravity to the existing Sherwood Lift Station (located opposite Sudbury Transit) west. The sewer systems from Mid-North Motors eastward will flow east to Levesque Street along Levesque Street to the existing Levesque Street Lift Station.

As development along the Kingsway occurs, the existing sanitary sewers along Levesque Street will have to be increased in size to handle the increased volumes. Similarly, the Levesque Street Lift Station and Sherwood Lift Station will also have to be increased in size.

As identified at the public meetings, there are also vacant lands south of the Kingsway that could be developed that will also utilize the Levesque Street Lift Station upgrades. These properties are shown on **Drawing 1** and **Table 1** attached.

A second, expanded catchment area, being largely future residential development, which will benefit from the upgrades to the Levesque Lift Station has been identified. Approximately 49% of these upgrades should be allocated to the expanded catchment area, and this has been taken into consideration in the tables below. Recovery from this additional area (\$441,000) will be the subject of a future Section 391 Charge, a new Development Charges By-law and/or Site Plan / Subdivision Agreements.

As development occurs, the existing downstream sewage systems will have to be upgraded to handle the increased volumes. The cost estimate for construction of the sewer and water systems along the Kingsway and necessary downstream upgrades is show on **Table 2** below:

Table 2 - Cost Estimate and City Share

	Total	City Share <sup>(2)</sup>	Recovery
Sewer & Water Services Along the Kingsway	\$2,565,000 <sup>(1)</sup>	\$768,800 <sup>(1)</sup>	\$ 1,796,200
Downstream Upgrades	\$1,990,000	\$435,520	\$ 1,554,480
Levesque Street Lift Station Upgrades	\$1,000,000	\$100,000	\$ 900,000
Total Project	\$5,555,000 <sup>(1)</sup>	\$1,304,320 <sup>(2)</sup>	\$ 4,250,680
Less: costs of Levesque Lift Station benefitting an expanded catchment area	\$ (490,000)	\$ (49,000)	\$ (441,000)
Total Kingsway Catchment Area / Recovery	\$5,065,000 <sup>(1)</sup>	\$1,255,320 <sup>(2)</sup>	\$ 3,809,680

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City Share of Total Project is 23.48%

Note: <sup>(1)</sup> \$490,000 in upgrades to the existing sewer and water services is included in existing road contract and will be funded from the 2006 Water Capital envelope while the remainder will be funded from 2008 Water and Wastewater envelopes.

<sup>(2)</sup> The City's share has been calculated as the replacement cost of existing services as a percentage of useful life expended. i.e. If system has reached 1/3 of its design life, the City will be responsible for 1/3 of its replacement costs.

The Planning Division has identified all vacant properties either fronting on the Kingsway and/or will utilize the upgrades to the Levesque Street Lift Station. The properties are shown on **Drawing 1** and **Table 1** attached.

As the costs for the installation of sewer and water services along the Kingsway and necessary long term enhancements to the existing infrastructure were being developed, staff began to review how the short and long term capital costs could be financed.

Historically, the City's policy has been that new development pays the full cost for providing services for their development. This would include all costs on their property as well as costs to extend sewer and water services to their property. Also, the developers would be responsible for their share of costs for improvements / enhancements to any existing infrastructure if necessary to accommodate the new development.

Occasionally, the original/initial developer would pay all the initial up front costs and recover part of the capital costs through a Front Ending Agreement. Under a Front Ending Agreement, all future development that utilizes the new services would pay their share of the initial development costs. The costs would be assessed at the time of their future development. However, the costing formulas and shares are developed as part of the initial front ending agreement. The City would administer the front ending agreement and all revenues would be paid to the initial developer.

The amount of the capital expenditures involved in this undertaking would make development of any of these properties on their own unaffordable. However, the City, working with the potential benefitting property owners can allow these services to be installed in a timely fashion and at an amount affordable to all property owners.

#### Public Information Meetings

In an effort to work proactively with the developers, on October 23, 2006 and December 12, 2006, City staff held two public meetings with the potential benefitting property owners that front this section of the Kingsway. Copies of the Minutes of Meetings for the two meetings are attached in **Appendix A**.

At these meetings, the Finance Division described possible cost-sharing approaches that the property owners and the City could undertake, and which would enable this project to proceed.

Since the last public meeting, cost estimates and the corresponding City share have been refined as shown on **Table 3** attached. This table also indicates the estimated timing of the downstream improvements, over the next thirteen years.

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## Financing

The City would be required to up-front the \$2.6 million in 2007 for the project to proceed, of which \$768,800 (being the City's share) would be funded from the 2006 to 2008 Water and Wastewater Capital Envelopes and the remaining \$1.8 million borrowed from the Capital Fund. Future downstream improvements would be funded through the appropriate Capital Envelopes for the City share, with the recoverable portion being funded either through a positive balance from developers' payments or through internal financing, with recoveries in the future as building permits are issued.

## Repayment Options

For the entire project for this catchment area, there is a total recovery target of \$3.8 million which can be recovered from the benefitting developers by establishing a Section 391 Charge. In addition, a further \$441,000 will have to be recovered from an expanded catchment area, which will be done through a further Section 391 Charge, a new Development Charge By-law or through future site plan and subdivision agreements.

Two options have been developed for repayment for the Kingsway catchment area. In both options, the assumptions are that development will occur equally over a 20-year period, and that construction costs inflation will be 2.5% annually. For the calculations, a 6% interest rate has been applied, and the assumption is that 4% interest would be earned on any charges that are collected in advance of construction of the downstream works.

The two options are outlined below:

<b>OPTION 1 TWO CHARGE OPTION</b>		
	<b>RESIDENTIAL</b>	<b>NON-RESIDENTIAL</b>
10 Year Charge <sup>(1)</sup> For MR 55 - Kingsway Works	\$4,427 per ha	\$1,405 per ha
Development Stage Charge <sup>(2)</sup> For Downstream Works		
Year 1 - 5	\$1,236 per Single/Semi/TH Unit \$ 666 per Multi Unit	\$4.35 per m <sup>2</sup>
Year 6 - 10	\$1,655 per Single/Semi/TH Unit \$ 891 per Multi Unit	\$5.82 per m <sup>2</sup>
Year 11 - 15	\$2,214 per Single/Semi/TH Unit \$1,192 per Multi Unit	\$7.79 per m <sup>2</sup>
Year 16 - 20	\$2,963 per Single/Semi/TH Unit \$1,596 per Multi Unit	\$10.42 per m <sup>2</sup>

<sup>(1)</sup> Charged annually against all benefitting lands regardless of when development occurs

<sup>(2)</sup> One-time payment at building permit stage

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The two charge option would recover the \$1.8 million of the 2007 project through a fixed mandatory per hectare charge of \$1,405 (for non-residential) and \$4,427 (residential) annually for 10 years; and collect a second charge related to the future downstream works (\$2 million) through a charge applied to new development, at the building permit stage, over an estimated twenty year period. For example a non-residential development would pay \$4.35 per square metre while a single residential unit would have a charge of \$1,236 in years 1 to 5.

It should be noted, that under this option the fixed mandatory per hectare charge could be paid in full (in advance) at any time, if a developer wishes to do so. Any payments remaining at the time of payment in full would be discounted, using the 6% interest rate used to calculate the repayments.

<b>OPTION 2 SINGLE CHARGE OPTION AT BUILDING PERMIT STAGE</b>		
	<b>RESIDENTIAL</b>	<b>NON-RESIDENTIAL</b>
Year 1 - 5	\$2,617 per Single/Semi/TH Unit \$1,409 per Multi Unit	\$9.21 per m <sup>2</sup>
Year 6 - 10	\$3,502 per Single/Sem/TH Unit \$1,886 per Multi Unit	\$12.32 per m <sup>2</sup>
Year 11 - 15	\$4,687 per Single/Semi/TH Unit \$2,524 per Multi Unit	\$16.49 per m <sup>2</sup>
Year 16 - 20	\$6,272 per Single/Semi/TH Unit \$3,377 per Multi Unit	\$22.06 per m <sup>2</sup>

Under the single charge option, the entire \$3.8 million related to this project would be recovered at the building permit stage, as development occurs, over the next twenty years. For example, in years 1 to 5, a non-residential development would be charged \$9.21 per square metre while a single family residential unit would have a charge of \$2,617.

Based on meetings with the benefitting property owners, the preference is clearly Option 2 (single charge as development occurs).

### **Public Meeting**

Although there is no longer a requirement to have a public meeting before passing Section 391 charges, Council may chose to hold one. However, the benefitting property owners have attended two public sessions, and the refined rates as calculated in the Hemson report as shown in **Appendix B** attached are less than those presented to them at the December meeting. The potential developers were very clear at the second meeting that their preference was to pay their share of the project at the development (building permit) stage.

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## **Summary**

In summary, it is recommended that:

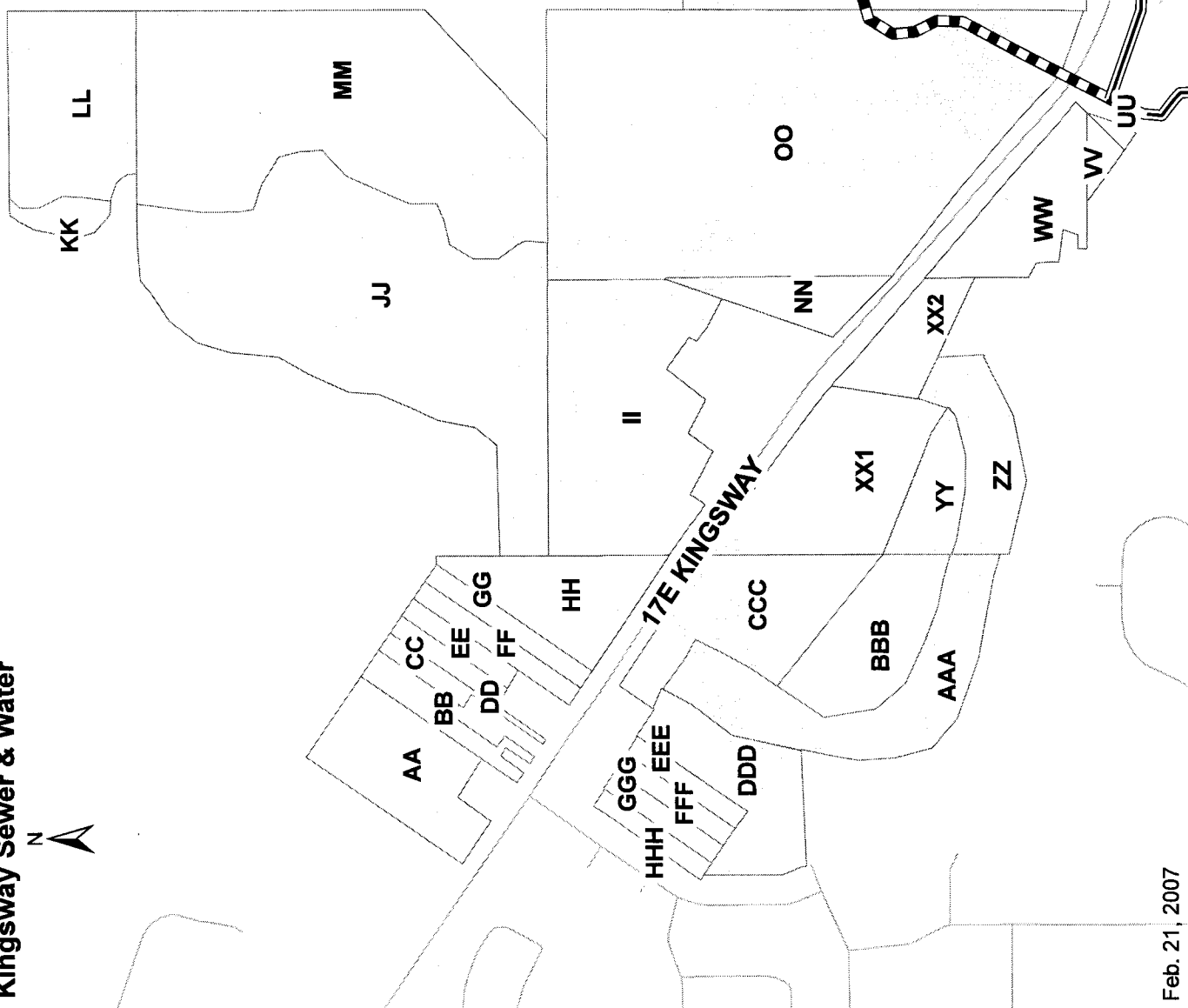
- ▶ the City proceed with the installation of new water and wastewater services along the Kingsway from Falconbridge Road to Moonlight Avenue, in conjunction with the 2007 road widening project, at an estimated cost of \$2.565 million;
- ▶ the City fund its share of this project (\$768,800) through the 2006 Water Capital Envelope and the 2008 Water and Wastewater Capital Envelopes;
- ▶ proceed with the necessary downstream upgrading works (estimated at \$3 million) as the projects are required, funding the City's share from the appropriate Capital Envelopes, and financing the recoverable portion through the Capital Fund;
- ▶ recover \$3.8 million, based on a 6% interest rate and a 20-year recovery period, through a Section 391 Charge, as outlined in Option 2 of this report and in the Hemson Report dated February 2007;
- ▶ collect these fees at the building permit stage for all new residential, commercial and industrial development in the catchment area; and
- ▶ have the Section 391 Charge By-law prepared for Council approval.

**Drawing 1**  
**Kingsway Sewer & Water**



**Legend**

- Kingsway Sewer & Water
- Existing & Potential Lands Serviced by Levesque
- Existing Levesque Lift Station Boundary



Feb. 21, 2007



**Table 1**

Label	Roll No./PIN	Land Use (New OP)	Zoning	Acres	ha
AA	530701002601201	Industrial	M1/M2	8.9	3.6
BB	530701002601100	Industrial	M2	2.6	1.0
CC	530701002601000	Industrial	M2	1.4	0.5
DD	530701002600900	Industrial	M2	1.4	0.6
EE	530701002600800	Industrial	M2	1.4	0.6
FF	530701002600700	Industrial	M2	2.1	0.8
GG	530701002600600	Industrial	M2	2.1	0.8
HH	530701002600500	Industrial	M1	7.5	3.1
II	530701001801300	Industrial	M1	21.7	8.8
JJ	530701002600500	Industrial	FD	42.2	17.1
KK	530701002600500	Industrial	FD	1.5	0.6
XX1	530701001801102	Parks/Living Area 1	FD	12.9	5.2
YY	530701001801102	Parks & Open Space	FD	3.8	1.5
ZZ	530701001801102	Living Area 1	FD	6.4	2.6
AAA	530701003115000	Parks/Living Area 1	FD	12.6	5.1
BBB	530701003115000	Parks & Open Space	FD	8.4	3.4
CCC	530701003115000	Parks & Open Space	FD	10.6	4.3
DDD	530701003115000	Living Area 1/Parks	FD	8.1	3.3
EEE	530701002509700	Living Area 1	R1	1.5	0.6
FFF	530701002509600	Living Area 1	R1	1.5	0.6
GGG	530701002509500	Living Area 1	R1	1.5	0.6
HHH	530701002509400	Living Area 1	R1	1.4	0.6
LL	530701002600500	Industrial	FD	12.9	5.2
MM	530701002600500	Industrial	FD	38.8	15.7
NN	530701001801301	Industrial	M1	3.8	1.5
OO	530701001801100	Industrial	FD	64.4	26.1
PP1	530701001800500	Industrial	FD	6.2	2.5
PP2	530701001800500	Industrial	FD	7.8	3.2
PP3	530701001800500	Industrial	FD	43.6	17.7
QQ	530701001800500	Heavy Industrial	FD	14.7	6.0
RR	530701001800500	Industrial	FD	15.4	6.2
SS	530701001800500	Heavy Industrial	FD	8.0	3.2
UU	530701001801101	Living Area 1	R2/C2	0.3	0.1
VV	530701001801101	Living Area 1	R1/R2/C2	0.9	0.4
WW	530701001801101	Mixed Use Comm/Parks/LA1	C2	7.2	2.9
XX2	530701001801102	Parks/Living Area 1	FD	4.4	1.8
<b>Total</b>				<b>390.0</b>	<b>157.9</b>

LL, MM, NN, OO, PP1, PP2, PP3, QQ, RR, SS, UU, VV, WW, XX2 are part of northern undeveloped area contribution to expanded Levesque Lift Station (92.5 ha)

Total new Levesque Lift Station undeveloped contributing area 180.2 ha

Northern portion (LL, MM, NN, OO, PP1, PP2, PP3, QQ, RR, SS, UU, VV, WW, XX2) represents 51.3 % of area contribution for Levesque Lift Station

Feb. 21/07

**KINGSWAY SANITARY SEWER & WATER OPTIONS**  
**Minutes of Meeting with Property Owners**

C-11  
 Tom Davies Square

Monday, October 23, 2006  
 Commencement: 6:15 p.m.

**Present:**

Ajutor Belanger	Ron Belanger	Nick Dellelce
Gil & Janet Gasparini	Denise Jutras	Saleem Khan
B. McDowell	Gil Rinaldi	Ron Scagnetti
Paul Zulich	John Zulich	Gerard McAndrew

**Absent:**

1594630 Ontario Ltd	Sheryl Gail Pauley	James Hendry	Keystone Realty Ltd
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**City Staff Present:**

Mark Mieto, Chief Administration Officer  
 Doug Nadorozny, GM of Growth and Development  
 Lorella Hayes, CFO / Treasurer  
 Nick Benkovich, Director of Water/Wastewater Services  
 Greg Clausen, Director of Engineering Services  
 Robert Falcioni, Director of Roads & Transportation  
 Bill Lautenbach, Director of Planning Services  
 Al Sweetman, Sewer & Water Engineer  
 Ed Stankiewicz, Co-ordinator of Current Budget, Financial Services  
 Leo Lange, IES / Engineering

**MARK MIETO PRESIDING**

Welcome address performed by Mark Mieto, CAO

During introductions, Councillor Janet Gasparini declared a conflict of interest and stated that she was present in the capacity of a property owner and not as a Councillor.

Mark Mieto welcomed everyone to the meeting and thanked them for attending. The City is considering up fronting the costs of installing sewer and water services on the current Kingsway project to accommodate future growth that may / will occur along the section of the Kingsway between Falconbridge Road and Levesque Street.

The City wishes to work with the property owners in a mutually benefitting partnership.

This meeting is to determine whether there is interest from the impacted property owners. Mark indicated that all funding options were open for discussion ranging from up-front contributions from the private developers towards the capital costs to the developers paying their share at the time building permits were required. In the latter approach, the City would up-front the

capital costs and recoup the developers' share at a later stage. This project concept was being presented at this time to avoid having to dig up the Kingsway in several years which would cause much frustration, traffic delays and significant additional costs. This approach is common in southern Ontario but new to Sudbury.

Mark Mieto introduced Greg Clausen and asked him to give an overview of the project.

Greg stated that this meeting was going to be informal. Staff were going to give the background as to why we called the meeting, describe various funding options from Ms. Lorella Hayes, CFO & Treasurer and her staff, and determine if there was sufficient interest in pursuing this option.

Greg gave a brief history / breakdown of the Kingsway Road Project as approved by Council and under construction. Staff are cautiously optimistic that once the 4 laning with centre median is completed, that development activities / potential will be accelerated on this section of the Kingsway.

Staff have calculated that the costs to install sewer and water services along the road right-of-way is estimated at \$2 Million. Necessary downstream improvements to the existing sewer system including lift station and forcemain to handle the increased flow volumes is estimated at an additional \$4 Million.

The downstream improvements would have to be in place when the new development wanted occupancy of their infrastructure. This is estimated to be within a 5 to 20 year window.

To avoid re-excavation of the new road right of way, the \$2 Million sewer and water services has to be approved by March 2007 to avoid delaying the road project. These cost estimates are gross cost estimates and do not include a cost sharing distribution formula including what the City's share would be for replacing existing services. It is anticipated that all benefitting partners including proposed new Subdivision off Bancroft Drive would contribute towards the capital upgrading and servicing program. It is estimated that the City's share of the total capital costs of \$6 Million could be in the \$1.0 to 1.5 Million with the balance coming from the private sector.

Mark Mieto stated that the City wishes to partner with property owners, to initiate now and to avoid additional costs of road rebuilds, and to have in place for new developments upgraded water & sewer capacity. The Municipal Act and Planning Act provide several mechanisms for the City to recoup the up-front new development related cost.

The City's current policy requires that developers pay 100% of the costs to provide new infrastructure (sewer, water, roads, etc.) necessary for their development. Also the developer is responsible for the costs of upgrading existing infrastructure necessary for the development. Based on merit, the City will contribute to necessary downstream improvements to improve existing identified deficiencies within the short term action plan. Each situation is reviewed individually on its specific merits and needs.

The City does not have a budget for new capital costs to accommodate growth.

Lorella Hayes explained the fee structure that could be considered. Costs per square metre of development and various mechanisms were mentioned. One option, based on the preliminary cost estimates, would propose a fee of approximately \$15.00 per square metre of building, and \$1,500 per residential unit, with increases in each 5 year period would be applicable.

General Questions came from the owners.

Questions were raised in regard to "Green belts?" Lorella Hayes stated that contributors would pay per square metre of development. The intent would be paying on what you build / develop. The owners were assured that under this option, if there is no development i.e. nothing happens, there would be no charges. You do not pay now; you only pay if you have new development on the land, based on this preliminary option.

Doug Nadorozny stated that under the current policy, the costs to provide for water and sewer services for new development is too expensive for any one developer. If future development is to occur in this area, there must be an upgrade to services currently in place. The City proposes to act as the catalyst to encourage development.

Concerns were raised by Mr. Zulich. Will the City force them to participate in this proposal? Mr. Mieto stated that there will be Public Meetings and Council will hear from the individuals and the majority will rule this or any new proposal. A similar process as used in the Rock Tunnel would be considered.

Lorella Hayes' staff will work up various cost sharing scenarios and financing options will be developed. The City will pay for its share, which would be based existing infrastructure.

CGS will make available at the next meeting the preliminary overviews for the whole system, detailed costs, and financing options.

Mark Mieto assured Mr. Zulich that detailed work regarding delineating areas in regard to their current properties will be looked into before the next meeting.

General consensus was received from all the owners that were present at the meeting.

Next meeting tentatively scheduled for Monday, November 27, 2006, at 6:00 p.m. in room C-11, Tom Davies Square. Owners will be notified in advance in writing. It is also proposed to have the minutes of this meeting and engineering and financial information submitted to the owners by about November 20, 2006.

Meeting adjournment: @ 7:25 p.m.

If you have any questions regarding these minutes, please contact the undersigned at (705) 675-4455 extension 2523. **(Meeting date has been rescheduled for December 12, 2006)**

R.G. (Greg) Clausen, P. Eng  
City Engineer  
RGC:pb



## Proposed Kingsway Sewer & Water Enhancement Program

### Minutes of Meeting

C-11  
Tom Davies Square

Tuesday, December 12, 2006  
Commencement: 6:00 p.m.

#### **Attendees:**

##### **Property Owners**

Ajutor Belanger  
Denise Jutras  
Gil Gasparini  
Gil Rinaldi  
John Zulich  
Paul Zulich  
Nick Dellelce  
Ron Belanger  
Ron Scagnetti  
Helene Scagnetti  
Saleem Khan  
Ted Beynon

##### **Absent Property Owners**

Bernie McDowell - Regrets  
James Hendry - Regrets  
S.G. Pauley  
Argentin Corps  
1594360 Ontario Ltd

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705.671.2489

[www.greatersudbury.ca](http://www.greatersudbury.ca)  
[www.grandsudbury.ca](http://www.grandsudbury.ca)

#### **CGS Staff**

Councillor Joe Cimino  
Mark Mieto, Chief Administration Officer  
Lorella Hayes, CFO / Treasurer  
Nick Benkovich, Director of Water/Wastewater Services  
Greg Clausen, Director of Engineering Services  
Bill Lautenbach, Director of Planning Services  
Al Sweetman, Sewer & Water Engineer  
Ed Stankiewicz, Mgr. Financing Planning & Policy  
Cheryl Mahaffy, Deputy Treasurer  
Keith Forrester, Real Estate Co-ordinator  
Angie Roy, Property Administrator  
Jason West, Engineering Technician  
Pauline Brien, Recording Secretary

**During the meeting, a number of questions were asked requesting additional information. The answers to the questions have been added to these Minutes of Meeting in bold.**

## **Mark Mieto Presiding**

Mark Mieto welcomed everyone to the meeting and thanked them for attending. He recapped the meeting of October 23, 2006, by stating that the City wishes to partner with the property owners to initiate and accommodate future growth that will occur along the section of the Kingsway between Falconbridge Road and Levesque Street.

He stated that City Council has approved \$ 12 million for the "five laning" of the Kingsway from Falconbridge Road east to the southeast by-pass (towards Coniston).

Mr. Mieto stated that the City is requesting a decision from the owners tonight in regard to their preferred funding option. City Staff will then complete the financial analysis to determine possible methods of repayment, cost share and who should contribute to costs. Staff propose to take a report to Council on February 28, 2007, giving options and recommendations for the sewer and water services on this section of the Kingsway and necessary downstream improvements.

A preliminary report including possible financing options was distributed to the owners at the meeting. A copy is attached.

Greg Clausen spoke on the capital construction cost estimates for the sewer and water services on the entire project. Greg also reviewed the necessary upgrades to the downstream system, as well as required work along the Kingsway. For preliminary analysis the City has assumed that a 25 percent contribution by the City for their share of the replacement costs of replacement of the existing infrastructure would be appropriate. The final contribution share by the City would be provided in the Minutes of Meeting.

### **Our most recent cost estimate for this project is as follows:**

<b>SECTION</b>	<b>TOTAL COST ESTIMATE</b>	<b>CITY SHARE</b>
<b>Kingsway West (1)</b>	<b>\$ 2,845,000.</b>	<b>\$ 928,800.</b>
<b>Kingsway East (2)</b>	<b>\$ 1,710,000.</b>	<b>\$ 275,520.</b>
<b>Levesque Lift Station (3)</b>	<b>\$ 1,000,000.</b>	<b>\$ 100,000.</b>
<b>Total</b>	<b>\$ 5,555,000.</b>	<b>\$ 1,304,320.</b>

**CITY SHARE: 23.5 percent**

- Note 1. The Kingsway West Section includes the cost of Sanitary Sewer Services on the Kingsway that flow to the West to and including the upgrades of the Sherwood Lift Station and Forcemain. The water services along this same alignment are included in this estimate.**

- **Note 2 . The Kingsway East Section includes the costs of Sanitary Sewer Services on the Kingsway that flow east to Levesque Street and the costs of necessary upgrades of the Levesque Street sanitary sewers. The new water services along the same section of the Kingsway are included in this estimate.**
- **Note 3. The costs for upgrading the Levesque Lift Station include all sewage flows from the Kingsway East Section plus the potential development area south of the Kingsway.**

Greg Clausen stated that Pioneer Construction is doing the preparatory road work over the winter and that the roadway is scheduled to be completed to Levesque Street by the middle of July 2007. The balance of the project is scheduled to be completed by the end of 2007. Pioneer is requesting to know if the sewer and water services are to be included by March 01, 2007, to avoid possibly delaying the road work next spring.

Lorella Hayes explained in general two financial Options 1 & 2 as shown on the handout.

Discussions ensued after Lorella completed her presentation.

Mr. Rinaldi stated that the Levesque Street Lift Station was originally built in 1967.

Mr. Rinaldi had several questions including:

1. What is the capacity in the existing sewage collection system along Levesque Street and in the Lift Station?
2. If someone applied for a building permit tomorrow would there be "free" capacity available without having to contribute to the development costs?

**Based on our current computerized sewer modeling, we estimate that the Levesque Street collection system and Lift Station has an available capacity of 22 l/sec of flow before upgrades to the collection system and/or Lift Station will be required.**

**This capacity is available "free" until such time as Development Charges (Special Assessment Levy, Section "391", etc.) is approved. From that point forward, any development within the defined catchment areas would be assessed their share of costs.**

Jason West stated that using the current sewer computer model and assuming uniform development over the next 20 years, the existing sewer collection system will need to be upsized within the next 10 years and that upgrades to the Lift Station may be required in about 5 years.

Lorella Hayes stated that the current financial figures indicate that necessary downstream infrastructure improvements are now estimated at \$3.0million.

Mark Mieto stated that this is our best guestimate at this time. We will make available the existing capacity within the Levesque Street system and Lift Station and the land area to be assessed costs as part of any development assessment. The information will be made available to the owners as soon as it is available.

Greg Clausen stated that we will distribute the revised assessment calculations, the finalized cost estimate including City contribution with the Minutes of Meeting if available.

Bill Lautenbach explained that the value and potential for development of adjacent land with the sewer and water services in place is much greater. Also, in 4 to 5 years available serviced land will be paramount for the future growth of the City. He stated that we may not have sufficient available serviced land for industrial/commercial development.

Mark Mieto stated that there are several key issues that need to be addressed including:

1. Cost of the project
2. Method / Alternative for payment including possibly Upfronting Agreements
3. This is an excellent opportunity for the City and Property Owners to work together pro-actively for the Community
4. Our report to Council will recommend "a go forward" position.

Mark Mieto reassured the owners that we would keep them informed on all aspects of this project.

Greg Clausen stated that the proposal is for the sewer & water services to be constructed along the edge of the five lane roadway with conduits across the road at strategic locations to accommodate development as it occurs. It is our goal not to require any pavement cuts across the roadway for sewer and/or water connections.

Mr. John Zulich stated that this is a good point; good idea to put conduits in now to avoid additional costs and disruption later. He stated that Financial Option 2 is more palatable for them. It will be easier for them to factor costs at the development stage. It shows the hard costs.

Mark Mieto stated that the current costs are based on current contract unit prices and estimates. The City will revise the numbers and review the City's share. He recommended approval of the preliminary totals as currently understood. A better cost estimate will not be known until actual quotes or tenders are received.

Lorella Hayes requested feedback from the owners over the estimated period of development of 20 years.

Mr. Mieto canvassed all the owners present:

- Mr. Adjutor Belanger was not impacted. He owns a residential property.
- Mr. G. Rinaldi did not wish to vote on either Options 1 or 2 until he feels confident



which option is best for him. He suggested a deferral until 2007, and a decision be made after the final numbers are available to determine the impact on his business and property.

- Messrs. Paul & John Zulich voted for Option 2.
- Mr. Ron Belanger voted for Option 2.
- Mr. Ted Banyon, on behalf of the Shrine Lodge, voted for Option 2.
- Ms. Denise Jutras voted for Option 2.
- Mr. Nick Dellelce voted for Option 2.

Bill Lautenbach will make available a list of which lands will receive benefit from this project and could potentially be assessed costs.

Mark Mieto thanked everyone for attending the meeting.

The meeting ended at 7:50 p.m.

We trust that these Minutes of Meeting accurately reflect what was discussed at the meeting. If you require elaboration on any item contained herein and / or require additional information, please give the writer a call at 674-4455 x 2523. Alternatively you may wish to call either Lorella Hayes, Bill Lautenbach, Al Sweetman or Jason West.

Thank you.

R. G. (Greg) Clausen, P. Eng



RGC:pbk

Enclosures

# **Kingsway Water and Sewer Project**

**December 12, 2006**

# Kingsway Water & Sewer Project

Water and Sewer Pipelines  
(along the Kingsway) \$2.1M

Future Downstream Upgrades  
(current pricing) \$3.0M

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\$5.1M

City's Share  
(25% of downstream costs) \$(-.75M)

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\$4.35M

# Apportionment of Costs Between Future Land Uses

Future Development	Flow Litres (000's/per day)	Share of Total %	Share of Costs	
			Water & Sewer Pipes	Downstream Works (current value)
Residential (10.6 ha)	414,920	24.9%	\$521,700	\$558,400
Commercial/ Industrial (133.2 ha)	1,248,750	75.1%	\$1,573,300	\$1,684,100
Total	1,663,670	100.0%	\$2,095,000	\$2,242,500

# KEY ASSUMPTIONS

- 20 years to develop area
- 6% interest rate for financing / 4% rate of return
- Downstream upgrades performed in future years
- 2.5% inflation factor
- 10.6 hectares of vacant residential land = 382 units
- 133.2 hectares Commercial / Industrial = 333,000 sq. metres
- Development stage charge to increase each 5 year period

# Option 1

Two Charge Option		
	Residential	Non-Residential
Annual Charge For 10 Years Kingsway Road Works <sup>(1)</sup>	\$6,308 per ha (approx \$175 per potential unit)	\$1,508 per ha
Development Stage Charge <sup>(2)</sup> For Downstream Works	\$1,267 per unit (blended) (Years One to Five)	\$4.38 m <sup>2</sup> (Years One to Five)
<sup>(1)</sup> Charged annually against all benefiting lands <sup>(2)</sup> One-time payment at building permit stage		

# Option 1

Two Charge Option		
	Residential	Non-Residential
Annual Charge For 10 Years Kingsway Road Works <sup>(1)</sup>	\$6,308 per ha (approx \$175 per potential unit)	\$1,508 per ha
Development Stage Charge <sup>(2)</sup> For Downstream Works	Years 1 -5    \$1,267 Years 6 -10    \$1,696 Years 11 -15    \$2,269 Years 16 -20    \$3,037	Years 1 -5    \$4.38 m <sup>2</sup> Years 6 -10    \$5.87 m <sup>2</sup> Years 11 -15    \$7.85 m <sup>2</sup> Years 16 -20    \$10.51m <sup>2</sup>
<sup>(1)</sup> Charged annually against all benefiting lands		
<sup>(2)</sup> One-time payment at building permit stage		
	6	

## Option 2

<b>Single Charge Option at Development Stage</b> (Years One to Five)	
<b>Residential (blended)</b>	<b>\$2,780 per unit</b>
<b>Non-Residential</b>	<b>\$9.62 per m<sup>2</sup></b>



## Option 2

Single Charge Option at Development Stage (Years 1 to 20)	
<b>Residential (blended)</b>	Years 1 -5    \$2,780
	Years 6 -10    \$3,721
	Years 11 -15    \$4,979
	Years 16 -20    \$6,663
<b>Non-Residential</b>	Years 1 -5    \$9.62 m <sup>2</sup>
	Years 6 -10    \$12.87 m <sup>2</sup>
	Years 11 -15    \$17.23 m <sup>2</sup>
	Years 16 -20    \$23.05m <sup>2</sup>

# Questions?

TABLE 3

Kingsway W/WW		Total Costs	City Share	To Be Recovered	Present Catchment	2007 Section 391	Future DC / 391
2007	Year 1	Present Project	768,800	1,796,200	100%	1,796,200	-
2010	Year 4	Levesque WW	116,624	230,471	100%	230,471	-
		Levesque Lift (pumps)	100,000	100,000	51%	51,000	49,000
2011	Year 5	Sherwood Forcemain	85,000	85,000	100%	85,000	-
2014	Year 8	Sherwood Lift	75,000	925,000	100%	925,000	-
2015	Year 9	Levesque WW	158,896	314,009	100%	314,009	-
2019	Year 13	Levesque Lift (upgrade)	-	800,000	51%	408,000	392,000
Totals		5,555,000	1,304,320	4,250,680		3,809,680	441,000
Option 1 - 10 year fixed At development stage						1,796,200 2,013,480	

# MR 55 - KINGSWAY WATER AND SEWER PROJECT COST RECOVERY OPTIONS

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City of Greater Sudbury

HEMSON Consulting Ltd

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February 2007

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## **I BACKGROUND**

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The City of Greater Sudbury is in the process of undertaking a major reconstruction project involving the MR 55 - Kingsway. The adjacent area broadly between Third Avenue and Moonlight Avenue contains approximately 158 hectares of undeveloped land which has the potential for Light Industrial, Commercial Industrial and Residential uses. However, the existing water and sewer system in the area has insufficient capacity to accommodate the potential growth.

While there is no immediate need to provide the necessary capacity to service the area, the opportunity to carry out the work in conjunction with the road reconstruction project is being given consideration. With regard to financing the project, the City wants to examine options for recovering part of the cost from the benefiting properties. Accordingly, it needs to establish the quantum of the charges that these options might involve and more generally the level of support for such an approach among the land owners who would be affected.

The required improvements are comprised of two elements. The first are new water and sewer pipes that would need to be installed mainly along MR 55 - Kingsway. This work would be undertaken in 2007. The second element are downstream upgrades that would be constructed in the future in response to demand.

This report examines two options for financing the improvements:

- **Two-charge Option.** The first component would recover the costs over a ten-year period of the sewer and water pipe that would be installed in 2007 along MR 55 - Kingsway based on a mandatory fixed per hectare charge. The cost of the downstream works would be recovered through a charge which would be applied at the point when sites are being developed. The charge would be calculated based on an assumed 20-year development time frame for the benefiting area. The charge rate under this option would be fixed for five year terms.

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- Single Charge Option. Under this option, a single charge would be applied at the building permit stage. The charge would incorporate both the MR 55 - Kingsway and the downstream works. The charge would be calculated using an assumed 20-year development time frame and would be fixed for five year terms.

## II A SECTION 391 CHARGE IS PROPOSED

---

In keeping with recent City practice regarding the recovery of costs from new development, a Section 391 charge is proposed as the cost recovery method for the MR 55 - Kingsway project. A charge established according to the provisions of S.391 of the Municipal Act is a practical and appropriate approach given the nature of the project. S.391 is within Part XII of the Act which governs Fees and Charges. Additionally, S.391 is subject to regulations contained in Ontario Regulation 584/06.

Section 391(2) specifically allows a municipality to impose a charge for capital costs related to sewage or water services on persons who do not receive immediate benefit but will receive benefit at some point in time.

Part XII of the Municipal Act which covers Fees and Charges together with OR 584/06 set out conditions under which fees and charges may be applied. The key conditions are as follows:

### 1. Part XII: Fees & Charges

Section 392 requires the municipality to maintain a list of the services for which fees and charges are applicable, the properties to which they apply and the amount of the fee or charge. Section 396 provides authority and direction to the municipality regarding items such as interest charges and penalties, discounts and exemptions.

### 2. Ontario Regulation 584/06

Section 2 of the Regulation prohibits municipalities from imposing fees or charges for capital costs already being recovered through a Development Charge. This is not an issue for the City as none of the costs associated with the MR 55 - Kingsway project are included in the current D. C. By-law.

The current regulation replaces OR 244/02 which contained a requirement to hold a public meeting concerning an intention to pass a general charges by-law. Under the new regulation no public meeting is required.

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The power provided to municipalities under Section 391 of the Municipal Act is well suited to the recovery of the costs associated with the proposed works. The associated provisions contained elsewhere in Part XII of the Municipal Act and in OR 584/06 are not overly prescriptive. Accordingly, the City can develop and implement a by-law designed to recover costs from new development reasonably quickly. Also to be noted is that neither Part XII of the Act nor Regulation 584/06 provide for an appeal of any associated by-law to the OMB.

In the next sections of the report, the apportionment of the cost of the proposed improvements is discussed.

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### **III FLOWS BY LAND USE IS MOST APPROPRIATE BASIS FOR APPORTIONING COSTS**

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This section discusses how to apportion the projected costs of the proposed project between the various land uses within the benefiting area. The overall cost of the project including downstream work is \$5.6 million based on current pricing. Of that, \$2.6 million relates to sewer and water pipes along the MR 55 - Kingsway. The future downstream upgrades to the Levesque Street sanitary system and lift station, the Sherwood lift station and the Frobisher forcemain have a current cost of approximately \$3.0 million. There is a variety of land uses within the area that will benefit from the service and since these uses do not make equal demands on the system, it is appropriate to use a method for apportioning costs that recognize these differences.

#### **A. ESTIMATED FLOWS BEST REFLECT USAGE OF THE WORKS**

The first issue concerning the apportionment of costs is the unit of measure that should be used. Since usage of the system will vary by type of property, a unit of measure that is able to account for these variances should be adopted. Based on discussions with City staff it was concluded that average daily flows of wastewater (expressed in terms of litres) would be the most appropriate common measure.

Flow rates data are not available for the various land uses. However, in the view of City staff, it is reasonable to use a flow rate assumption of 410 litres per day per person for residential uses and 3.75 litres per day per m<sup>2</sup> for non-residential uses.

Although flow rates for more specific land uses could vary from the broad estimated daily averages identified above, alternative approaches for allocating costs, such as land area or building area are considered less reasonable since they bear a less direct relationship to the purpose and usage of the sewer and water system infrastructure for which charges are being calculated.

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## **B. FLOW PROJECTIONS BY PROPERTY TYPE BASED ON FUTURE LAND USES**

To calculate the projected flows by property type within the catchment area, data on future land use were obtained from the City's Growth and Development Department. The data break down the projected amount of development that would exist once currently vacant land is developed according to planned uses. The bulk of the vacant land area is for non-residential uses. The other significant use would be residential development. Map 1 illustrates uses by area and Table 1 provides additional details to each area, including size. In total, there are approximately 158 hectares of land within the catchment area of which 150.1 hectares are developable. Of the developable land 10.6 hectares would be for residential uses. The balance of the vacant land is divided between Commercial Industrial (14.7 ha) use and Light Industrial (124.8 ha) use.

### **1. Residential**

According to Planning Services, the 10.6 hectares of vacant residential land is likely to be built out with an even share of medium and high density housing. Overall the land would yield an average of 36 units per hectare. Thus the land would accommodate approximately 382 units.

Using this unit projection, an estimate of additional population was made based on population per unit rates of 2.6 p.p.u. for medium density units (singles, semis and townhomes) and 1.4 p.p.u. for high density units (apartments). Accordingly, the projected population for the new units at build-out is 763 persons.

### **2. Commercial/Industrial**

Within the catchment area there are approximately 124.8 hectares of potential light industrial land. Of this, approximately 15.0 hectares has reduced potential because of buffering and other requirements. These requirements would reduce the available area for development by about 60% or 9 hectares. Thus, the net developable area of light industrial land is 115.8 hectares. In addition there are 14.7 ha of commercial/industrial land. In total, developable non-residential land is 130.5 ha.

Given this area of developable land, an estimate was made of the amount of built space that it would likely accommodate. While "density" (built space as a percentage of site area) can vary substantially from site to site depending upon the

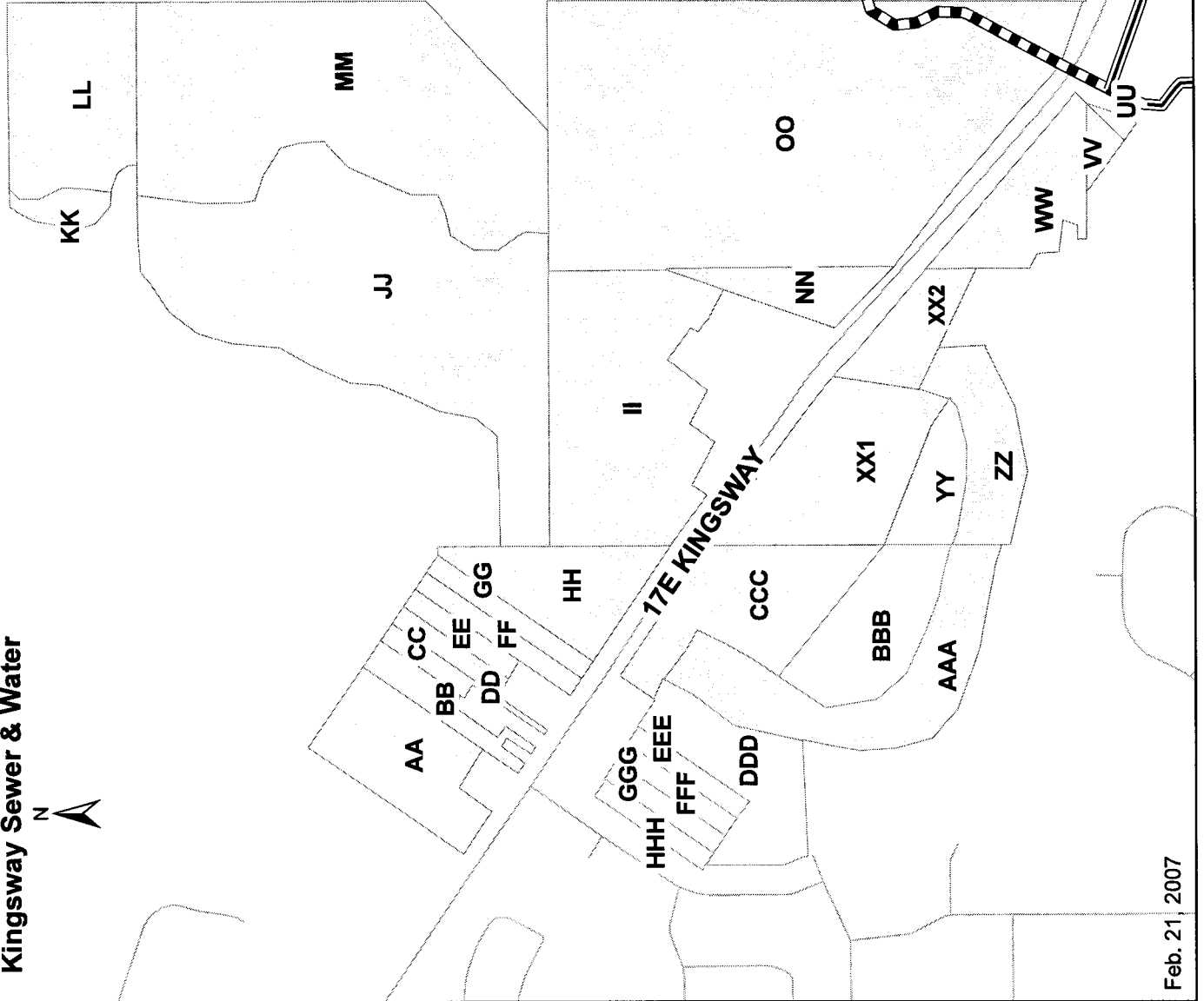
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# Map 1 Kingsway Sewer & Water



## Legend

- Non-Residential
- Residential
- Existing & Potential Lands Serviced by Levesque
- Existing Levesque Lift Station Boundary



Feb. 21, 2007

**Table 1**

Label	Roll No./PIN	Land Use (New OP)	Zoning	Acres	ha
AA	530701002601201	Industrial	M1/M2	8.9	3.6
BB	530701002601100	Industrial	M2	2.6	1.0
CC	530701002601000	Industrial	M2	1.4	0.5
DD	530701002600900	Industrial	M2	1.4	0.6
EE	530701002600800	Industrial	M2	1.4	0.6
FF	530701002600700	Industrial	M2	2.1	0.8
GG	530701002600600	Industrial	M2	2.1	0.8
HH	530701002600500	Industrial	M1	7.5	3.1
II	530701001801300	Industrial	M1	21.7	8.8
JJ	530701002600500	Industrial	FD	42.2	17.1
KK	530701002600500	Industrial	FD	1.5	0.6
XX1	530701001801102	Parks/Living Area 1	FD	12.9	5.2
YY	530701001801102	Parks & Open Space	FD	3.8	1.5
ZZ	530701001801102	Living Area 1	FD	6.4	2.6
AAA	530701003115000	Parks/Living Area 1	FD	12.6	5.1
BBB	530701003115000	Parks & Open Space	FD	8.4	3.4
CCC	530701003115000	Parks & Open Space	FD	10.6	4.3
DDD	530701003115000	Living Area 1/Parks	FD	8.1	3.3
EEE	530701002509700	Living Area 1	R1	1.5	0.6
FFF	530701002509600	Living Area 1	R1	1.5	0.6
GGG	530701002509500	Living Area 1	R1	1.5	0.6
HHH	530701002509400	Living Area 1	R1	1.4	0.6
LL	530701002600500	Industrial	FD	12.9	5.2
MM	530701002600500	Industrial	FD	38.8	15.7
NN	530701001801301	Industrial	M1	3.8	1.5
OO	530701001801100	Industrial	FD	64.4	26.1
PP1	530701001800500	Industrial	FD	6.2	2.5
PP2	530701001800500	Industrial	FD	7.8	3.2
PP3	530701001800500	Industrial	FD	43.6	17.7
QQ	530701001800500	Heavy Industrial	FD	14.7	6.0
RR	530701001800500	Industrial	FD	15.4	6.2
SS	530701001800500	Heavy Industrial	FD	8.0	3.2
UU	530701001801101	Living Area 1	R2/C2	0.3	0.1
VV	530701001801101	Living Area 1	R1/R2/C2	0.9	0.4
WW	530701001801101	Mixed Use Comm/Parks/LA1	C2	7.2	2.9
XX2	530701001801102	Parks/Living Area 1	FD	4.4	1.8
			<b>Total</b>	<b>390.0</b>	<b>157.9</b>

LL, MM, NN, OO, PP1, PP2, PP3, QQ, RR, SS, UU, VV, WW, XX2 are part of northern undeveloped area contribution to expanded Levesque Lift Station (92.5 ha)

Total new Levesque Lift Station undeveloped contributing area 180.2 ha

Northern portion (LL, MM, NN, OO, PP1, PP2, PP3, QQ, RR, SS, UU, VV, WW, XX2) represents 51.3 % of area contribution for Levesque Lift Station

Feb. 21/07

specific type of development, an overall average of 25% is considered reasonable. For higher density uses such as office buildings a density in the range of 50% is usual while for uses such as car dealerships and free standing restaurants much lower densities in the range of 10% are common. For retail developments and light industrial buildings ratios of 25-30% are common.

Based on the hectares of developable vacant land and the 25% density assumption, it is projected that 326,250 m<sup>2</sup> of new space will be achieved at build-out.

Based on the projected amounts of future development discussed above, the following estimate of daily waste water flows were calculated.

Land Use	Quantities	Flows per Unit (Litres)	Total Projected Flow (Litres)
Residential	763 persons	410 per person	313,240
Commercial/Industrial	326,250 m <sup>2</sup>	3.75 per m <sup>2</sup>	1,223,440
		<b>Total</b>	<b>1,536,680</b>

### C. ESTABLISHMENT OF SHARE OF COSTS TO BE RECOVERED

As noted previously, the works that are required to enable development to occur on the lands in the catchment area are comprised of two elements. The first are sewer and water pipes to be installed along MR 55 - Kingsway, the second are future downstream improvements mainly related to lift stations and a forcemain. The total cost of the MR 55 - Kingsway component will be \$2.6 million. City engineering staff are of the opinion that elements of the works are for the benefit of existing users. The share for these users varies by component. Of the overall cost, about 30% of this component should be attributed to existing users. The downstream works in total are estimated to cost \$3.0 million. They are comprised of various components of which are, in the opinion of City engineering staff, attributable partly to existing users and partly to other lands to the south of the benefiting area covered by the charges discussed in this report. In combination, 19.5% of the downstream works is considered a reasonable share to

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attribute to existing users and the land to the south. Based on these shares, the costs to be recovered through charges to the benefiting lands would be:

Kingsway Water and Sewer Pipes (70.0%)	\$1,796,200
Downstream Works (80.5%)	<u>\$2,013,480</u>
	\$3,809,680 <sup>1</sup>

#### D. APPORTIONMENT OF COSTS BETWEEN FUTURE LAND USES

A second apportionment calculation is required in order to divide the \$3,809,680 cost share attributable to future development between the future land uses. This apportionment was done on the basis of shares of projected flows discussed previously. The results are shown below.

Future Development	Flow Litres (000's/per day)	Share of Total (%)	Share of Cost	
			Water & Sewer Pipes	Downstream Works
Residential	313,240	24.9%	366,100	410,430
Commercial/Industrial	1,223,440	75.1%	1,430,100	1,603,050
<b>Total</b>	<b>1,536,680</b>	<b>100%</b>	<b>1,796,200</b>	<b>2,013,480</b>

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<sup>1</sup> \$2007 Cost Estimate

## **IV CHARGE COULD BE CALCULATED IN VARIOUS WAYS**

---

As was discussed in the previous section of this report, the recovery target for the potential charges is \$3,809,680. Of this amount, \$1.8 million relates to sewer and water pipes to be installed as part of the MR 55 - Kingsway reconstructions project being undertaken in 2007. Therefore, funds to pay for these costs will have to be borrowed either from one of the City's reserve funds or from external sources since any charges to be applied would not recover the amounts until some time in the future. In contrast, the costs of the downstream improvement will be incurred in stages at later dates. Because of this charge revenues would likely be better aligned with expenditures. To calculate the appropriate charge to recover the share of these costs, consideration must be given both to the effect of inflation on the costs of undertaking the future downstream works and to the interest that would be earned on charges related to these costs that would be collected in advance of the works being undertaken. In order to determine the required charge rates, it is therefore necessary to decide on the most appropriate cost recovery option.

Based on discussions with City staff and taking account of the nature and timing of the various works required to service the undeveloped lands, two potential cost recovery options have been considered.

### **A. TWO CHARGE OPTION**

Under this option, the first charge would recover the \$1.8 million cost of the sewer and water pipe works to be installed along the MR 55 - Kingsway in 2007. The charge would be applied to the benefiting landowners in the form of a fixed, mandatory per hectare charge for 10 years. The second charge would recover the cost share of future downstream works through a per unit or per square metre charge applied to new development as it occurs in the future. As noted, development is anticipated to occur over a 20-year time frame. In order to recognize the inflation and interest rate

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implications effect of this extended development period, this option incorporates charge increases every five years.

#### **B. A SINGLE CHARGE OPTION**

Under the second option both cost elements (short- and long-term works) would be recovered through a single per unit or per square metre charge that would be applied to new development as it occurs. As with the second charge discussed above, this charge would be increased every five years over the development timeframe.

## **V PROJECTED CHARGES BY OPTION AND LAND USE**

---

As discussed in the previous section, two options have been developed for calculating the charges required to recover the costs of the water and sewer system improvements. The first is a two-part charge, one a mandatory ten-year charge and the second a charge applied at the development stage. The second option would recover both cost shares as development occurs over the projected 20-year period it would take to develop the land within the benefiting area.

### **A. THREE RATE ASSUMPTIONS WERE MADE**

For the purposes of determining the charges under the two options, three rate assumptions were made. For the purposes of estimating the cost of the downstream components of the works that would be constructed in future years a construction cost inflation factor of 2 ½% per year was assumed. For the interest rate applicable to costs that would be incurred in 2007 and recovered over a ten year period, a rate of 6% was adopted. A rate of 4% was assumed for the interest that would be earned on charges that are collected in advance of the construction of future downstream works.

### **B. 20-YEAR DEVELOPMENT TIME FRAME IS ASSUMED**

To calculate the appropriate charges it is necessary to reach a conclusion regarding the time frame over which the development in the benefiting area is likely to occur. In the view of Planning Services staff, there is no evident prospect of development occurring in any particular pattern or at any particular time. However, overall, it is considered reasonable to assume that it will take 20 years for the area to reach full development. In view of this, it was therefore assumed for the purposes of the charge calculations that development would occur evenly over a twenty-year period.

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### C. OPTION 1 – TWO CHARGE OPTION

Under the first option, the recovery of the share of costs would be made using a combination of two charges. The first would be a fixed charge applied annually to land in the benefiting area over a 10-year term. Since this charge would be applied irrespective of whether development occurs, it is calculated on a per gross hectare basis. This would recover the cost of the sewer and water pipe works along MR 55 - Kingsway to be undertaken in 2007.

The second element would be a charge applied to new development as it occurs. This charge would recover the costs of the downstream works that will be required in future years. As this charge would apply at the development stage, it has been calculated on a per unit basis for residential development and on a per square metre basis for non-residential development.

The table below shows the rates for the two charges for residential and non-residential land uses.

<b>OPTION 1 TWO CHARGE OPTION</b>		
	<b>RESIDENTIAL</b>	<b>NON-RESIDENTIAL</b>
<b>10 Year Charge<sup>(1)</sup> For MR 55 - Kingsway Works</b>	\$4,427 per ha	\$1,405 per ha
<b>Development Stage Charge<sup>(2)</sup> For Downstream Works</b>		
<b>YEAR 1 - 5</b>	\$1,236 per Single/Semi/TH Unit \$ 666 per Multi Unit	\$4.35 per m <sup>2</sup>
<b>YEAR 6 - 10</b>	\$1,655 per Single/Semi/TH Unit \$ 891 per Multi Unit	\$5.82 per m <sup>2</sup>
<b>YEAR 11 - 15</b>	\$2,214 per Single/Semi/TH Unit \$1,192 per Multi Unit	\$7.79 per m <sup>2</sup>
<b>YEAR 16 - 20</b>	\$2,963 per Single/Semi/TH Unit \$1,596 per Multi Unit	\$10.42 per m <sup>2</sup>

<sup>(1)</sup> Charged annually against all benefiting lands

<sup>(2)</sup> One-time payment at building permit stage

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Appendix Tables 1.1 and 1.2 show the detailed calculations relating to the above charges.

#### **D. OPTION 2 – SINGLE CHARGE OPTION**

The second option would be a single charge that incorporates the cost recovery related to both the initial water and sewer pipe works on MR 55 - Kingsway and the later downstream works. It is anticipated that the charge would be applied against development at the building permit stage. The table below sets out the required charge rates under this approach.

<b>OPTION 2 SINGLE CHARGE OPTION</b>		
	<b>RESIDENTIAL</b>	<b>NON-RESIDENTIAL</b>
<b>YEAR 1 - 5</b>	\$2,617 per Single/Semi/TH Unit \$1,409 per Multi Unit	\$9.21 per m <sup>2</sup>
<b>YEAR 6 - 10</b>	\$3,502 per Single/Semi/TH Unit \$1,886 per Multi Unit	\$12.32 per m <sup>2</sup>
<b>YEAR 11 - 15</b>	\$4,687 per Single/Semi/TH Unit \$2,524 per Multi Unit	\$16.49 per m <sup>2</sup>
<b>YEAR 16 - 20</b>	\$6,272 per Single/Semi/TH Unit \$3,377 per Multi Unit	\$22.06 per m <sup>2</sup>

Appendix Table 2 shows the detailed calculations relating to the above charges.

## **VI ADMINISTRATIVE ISSUES**

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There are a number of administrative considerations that should be taken account of within an implementation of a S.391 Charges By-law.

### **A. MAP**

As part of the implementing by-law, it will be necessary to provide a map accurately delineating the boundaries of the area within which properties will be subject to charges.

### **B. COLLECTION**

Under Option 1 the cost share relating to the initial MR 55 - Kingsway works would be recovered over a ten year period as an annual charge calculated on a per hectare basis. It is suggested that other charges under either Option 1 or 2 be collected at the building permit stage as is the case with Development Charges.

### **C. DEMOLITION**

Where new residential units or non-residential space are constructed on sites which contain existing units or space that is demolished to make way for development, charges should only apply to net additional units or space.

### **D. SERVICE-IN-LIEU AGREEMENTS**

Council could consider the use of "Service-in-Lieu" agreements under which developers would be permitted to undertake work that the City would otherwise be paying for in exchange for credits against charges.

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**E. CAPITAL FUND REPAYMENTS**

The City should credit all charge payments to the Capital Fund from which the amounts to be recovered have been drawn. Separate accounts should be maintained for each land use type for which a charge is made. Records should be maintained of the outstanding balance applicable for each land use type. The balance should take account of allowances for accumulated interest calculated using applicable periodic rates. Once the total share to be recovered for a particular land use including accumulated interest has been paid through the collection of charges from developments, charges should no longer be applied to properties involving that land use. Once the recovery target amounts and accumulated interest have been reached for all land uses, Council should rescind the by-law.

**F. PREPAYMENTS**

Should Option 1 be adopted, provision should be made in the by-law to permit owners to prepay the fixed annual MR 55 - Kingsway charge. If a prepayment is made, a reduction should be provided by discounting the remaining payments using a 6% discount rate.

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## ***APPENDIX***

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APPENDIX  
TABLE 1.1

CITY OF GREATER SUDBURY  
OPTION 1 - TWO CHARGE OPTION  
KINGSWAY COMPONENT  
CASH FLOW AND DETERMINATION OF PROPOSED CHARGE

GROWTH-RELATED EXPENDITURES (CONSTANT \$000)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	TOTAL
<b>Project Costs</b>											
Kingsway Works	2,565.0										2,565.0
Total Project Costs	2,565.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,565.0
To Be Recovered from Future DC / S.391	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Project Costs	2,565.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,565.0
City Share	768.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	768.8
Growth-Related Share	1,796.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,796.2
Residential Share 20.4%	366.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	366.1
Non-Residential Share 79.6%	1,430.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,430.1

RESIDENTIAL CASH FLOW

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	TOTAL
<b>OPENING CASH BALANCE (\$000)</b>	0.0	(319.2)	(291.4)	(262.0)	(230.8)	(197.7)	(162.6)	(125.4)	(86.0)	(44.3)	
<b>2007-2016 RESIDENTIAL FUNDING REQUIREMENTS</b>											
RESIDENTIAL CASH FLOW - constant (\$000)	366.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	366.1
HECTARES	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	
REVENUE - current (\$000)	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	469.3
- Charge Receipts	0.0	(19.2)	(17.5)	(15.7)	(13.8)	(11.9)	(9.8)	(7.5)	(5.2)	(2.7)	(103.2)
- Interest <sup>1</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	46.9	27.8	29.4	31.2	33.1	35.1	37.2	39.4	41.8	44.3	366.1
CLOSING CASH BALANCE	(319.2)	(291.4)	(262.0)	(230.8)	(197.7)	(162.6)	(125.4)	(86.0)	(44.3)	0.0	
Rate Per Hectare											\$4,427

NON-RESIDENTIAL CASH FLOW

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	TOTAL
<b>OPENING CASH BALANCE (\$000)</b>	0.0	(1,246.8)	(1,138.3)	(1,023.3)	(901.4)	(772.1)	(635.2)	(490.0)	(336.1)	(172.9)	
<b>2007-2016 NON-RESIDENTIAL FUNDING REQUIREMENTS</b>											
NON-RESIDENTIAL CASH FLOW - constant (\$000)	1,430.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,430.1
HECTARES	130.5	130.5	130.5	130.5	130.5	130.5	130.5	130.5	130.5	130.5	
REVENUE - current (\$000)	183.3	183.3	183.3	183.3	183.3	183.3	183.3	183.3	183.3	183.3	1,833.0
- Charge Receipts	0.0	(74.8)	(68.3)	(61.4)	(54.1)	(46.3)	(38.1)	(29.4)	(20.2)	(10.4)	(403.0)
- Interest <sup>1</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL REVENUE	183.3	108.5	115.0	121.9	129.2	137.0	145.2	153.9	163.1	172.9	1,430.1
CLOSING CASH BALANCE	(1,246.8)	(1,138.3)	(1,023.3)	(901.4)	(772.1)	(635.2)	(490.0)	(336.1)	(172.9)	(0.0)	
Rate Per Hectare											\$1,405

Notes:  
1) Interest Rates  
Charged at (negative balances) 6.0%  
Earned at (positive balances) 4.0%

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APPENDIX  
TABLE 1.2

CITY OF GREATER SUDBURY  
OPTION 1 - TWO CHARGE OPTION  
DOWNSTREAM COMPONENT  
CASH FLOW AND DETERMINATION OF PROPOSED CHARGE

GROWTH-RELATED EXPENDITURES (CONSTANT \$000)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
<b>Project Costs</b>																					
Leverque Street & Lift Station Upgrades				547.1	170.0	0.0	0.0	1,000.0	472.9	0.0	0.0	0.0	800.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,420.0
Sherwood Lift Station Upgrades Ind. Potemmain				547.1	170.0	0.0	0.0	1,000.0	472.9	0.0	0.0	0.0	800.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,700.0
<b>Total Project Costs</b>	0.0	0.0	0.0	1,094.2	340.0	0.0	0.0	2,000.0	945.8	0.0	0.0	0.0	1,600.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,120.0
To Be Recovered from Future DC / S.391																					441.0
<b>Net Project Costs</b>	0.0	0.0	0.0	1,094.2	340.0	0.0	0.0	2,000.0	945.8	0.0	0.0	0.0	1,600.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,549.0
<b>City Share</b>																					535.5
Growth-Related Share	0.0	0.0	0.0	216.6	85.0	0.0	0.0	75.0	158.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,013.5
Residential Share 20.4%	0.0	0.0	0.0	281.5	85.0	0.0	0.0	925.0	314.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	410.4
Non-Residential Share 79.6%	0.0	0.0	0.0	57.4	17.3	0.0	0.0	188.6	64.0	0.0	0.0	0.0	83.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,803.1

RESIDENTIAL CASH FLOW

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
<b>OPENING CASH BALANCE (\$000)</b>	0.0	18.2	37.1	56.7	15.4	15.0	38.6	65.8	(131.4)	(182.9)	(180.2)	(158.5)	(135.4)	(222.9)	(203.7)	(183.4)	(150.9)	(116.4)	(79.8)	(41.1)	
<b>2007-2026 RESIDENTIAL FUNDING REQUIREMENTS</b>																					
RESIDENTIAL CASH FLOW - constant (\$000)	0.0	0.0	0.0	57.4	17.3	0.0	0.0	188.6	64.0	0.0	0.0	0.0	83.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	410.4
RESIDENTIAL CASH FLOW - current (\$000)	0.0	0.0	0.0	61.8	19.1	0.0	0.0	224.1	78.0	0.0	0.0	0.0	111.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	494.9
<b>RESIDENTIAL GROWTH</b>																					
- New Residential Units	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	382.0
<b>PROPOSED CHARGE (per unit)</b>	951.1	951.1	951.1	951.1	951.1	1,272.8	1,272.8	1,272.8	1,272.8	1,272.8	1,703.3	1,703.3	1,703.3	1,703.3	1,703.3	2,279.4	2,279.4	2,279.4	2,279.4	2,279.4	2,279.4
<b>REVENUE - current (\$000)</b>	18.2	18.2	18.2	18.2	18.2	24.3	24.3	24.3	24.3	24.3	32.5	32.5	32.5	32.5	32.5	43.5	43.5	43.5	43.5	43.5	592.7
- Charge Receipts	0.0	0.7	1.5	2.3	0.6	0.6	1.6	2.6	(7.9)	(11.6)	(10.8)	(8.5)	(8.1)	(13.4)	(12.2)	(11.0)	(9.1)	(7.0)	(4.8)	(2.5)	(97.9)
- Interest on Opening Balance	18.2	18.9	19.6	20.4	18.8	24.9	25.9	26.9	16.4	12.7	21.7	23.0	24.4	19.2	20.3	32.5	34.5	36.6	38.7	41.1	494.9
<b>TOTAL REVENUE (\$000)</b>	18.2	37.1	56.7	15.4	15.0	38.9	65.8	(131.4)	(182.9)	(180.2)	(158.5)	(135.4)	(135.4)	(222.9)	(203.7)	(183.4)	(150.9)	(116.4)	(79.8)	(41.1)	0.0
<b>CLOSING CASH BALANCE (\$000)</b>	18.2	37.1	56.7	15.4	15.0	38.9	65.8	(131.4)	(182.9)	(180.2)	(158.5)	(135.4)	(135.4)	(222.9)	(203.7)	(183.4)	(150.9)	(116.4)	(79.8)	(41.1)	0.0

NON-RESIDENTIAL CASH FLOW

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
<b>OPENING CASH BALANCE (\$000)</b>	0.0	71.0	144.7	221.5	60.0	58.6	155.9	257.1	(513.0)	(753.5)	(703.7)	(618.9)	(528.9)	(870.5)	(795.6)	(716.3)	(599.2)	(454.5)	(311.8)	(160.4)	
<b>2007-2026 NON-RESIDENTIAL FUNDING REQUIREMENTS</b>																					
NON-RESIDENTIAL CASH FLOW - constant (\$000)	0.0	0.0	0.0	224.1	67.7	0.0	0.0	798.4	250.0	0.0	0.0	0.0	324.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,603.1
NON-RESIDENTIAL CASH FLOW - current (\$000)	0.0	0.0	0.0	241.3	74.7	0.0	0.0	875.4	304.6	0.0	0.0	0.0	436.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,932.9
<b>NON-RESIDENTIAL GROWTH</b>																					
- Additional GFA - square metres	16,313	16,313	16,313	16,313	16,313	16,313	16,313	16,313	16,313	16,313	16,313	16,313	16,313	16,313	16,313	16,313	16,313	16,313	16,313	16,313	326,250
<b>PROPOSED CHARGE (per square metre)</b>	4.35	4.35	4.35	4.35	4.35	5.82	5.82	5.82	5.82	5.82	7.79	7.79	7.79	7.79	7.79	10.42	10.42	10.42	10.42	10.42	10.42
<b>REVENUE - current (\$000)</b>	71.0	71.0	71.0	71.0	71.0	95.0	95.0	95.0	95.0	95.0	127.1	127.1	127.1	127.1	127.1	170.0	170.0	170.0	170.0	170.0	2,315.1
- Charge Receipts	0.0	2.8	5.8	8.9	2.4	2.3	6.2	10.3	(30.8)	(45.2)	(42.2)	(37.1)	(31.7)	(52.2)	(47.7)	(43.0)	(35.4)	(27.3)	(18.7)	(9.6)	(982.2)
- Interest on Opening Balance	71.0	73.8	76.7	78.8	73.4	97.3	101.2	105.2	64.2	48.7	84.8	89.9	95.3	74.8	78.3	127.1	134.7	142.8	151.3	160.4	1,932.9
<b>TOTAL REVENUE (\$000)</b>	71.0	144.7	221.5	60.0	58.6	155.9	257.1	(513.0)	(753.5)	(703.7)	(618.9)	(528.9)	(528.9)	(870.5)	(795.6)	(716.3)	(599.2)	(454.5)	(311.8)	(160.4)	0.0
<b>CLOSING CASH BALANCE (\$000)</b>	71.0	144.7	221.5	60.0	58.6	155.9	257.1	(513.0)	(753.5)	(703.7)	(618.9)	(528.9)	(528.9)	(870.5)	(795.6)	(716.3)	(599.2)	(454.5)	(311.8)	(160.4)	0.0

Notes:  
1) Interest Rates  
Charged at (negative balances) 6.0%  
Earned at (positive balances) 4.0%  
2) Annual Inflation Rate 2.5%

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APPENDIX  
TABLE 2

CITY OF GREATER SUBURBY  
OPTION 2 - SINGLE CHARGE OPTION  
CASH FLOW AND DETERMINATION OF PROPOSED CHARGE

GROWTH-RELATED EXPENDITURES (CONSTANT \$000)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
<b>Project Costs</b>																					
Kingsway Works	2,565.0			547.1	170.0			1,000.0	472.9				800.0								2,565.0
Levesque Street & Lift Station Upgrades																					1,820.0
Sherrwood Lift Station Upgrades Incl. Foremain																					1,170.0
<b>Total Project Costs</b>	<b>2,565.0</b>	<b>0.0</b>	<b>0.0</b>	<b>547.1</b>	<b>170.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1,000.0</b>	<b>472.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>800.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>5,555.0</b>
<b>To Be Recovered from Future DC / S.391</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>49.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>392.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>441.0</b>
<b>Net Project Costs</b>	<b>2,565.0</b>	<b>0.0</b>	<b>0.0</b>	<b>498.1</b>	<b>170.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1,000.0</b>	<b>472.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>408.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>5,114.0</b>
<b>City Share</b>	<b>768.8</b>	<b>0.0</b>	<b>0.0</b>	<b>216.8</b>	<b>85.0</b>	<b>0.0</b>	<b>0.0</b>	<b>75.0</b>	<b>198.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1,304.3</b>
<b>Growth-Related Share</b>	<b>1,796.2</b>	<b>0.0</b>	<b>0.0</b>	<b>281.5</b>	<b>85.0</b>	<b>0.0</b>	<b>0.0</b>	<b>925.0</b>	<b>314.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>408.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>3,809.7</b>
<b>Residential Share 20.4%</b>	<b>365.1</b>	<b>0.0</b>	<b>0.0</b>	<b>57.4</b>	<b>17.3</b>	<b>0.0</b>	<b>0.0</b>	<b>188.6</b>	<b>64.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>83.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>776.6</b>
<b>Non-Residential Share 79.6%</b>	<b>1,430.1</b>	<b>0.0</b>	<b>0.0</b>	<b>224.1</b>	<b>67.7</b>	<b>0.0</b>	<b>0.0</b>	<b>736.4</b>	<b>250.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>324.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>3,033.1</b>

RESIDENTIAL CASH FLOW

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
<b>OPENING CASH BALANCE (\$000)</b>	<b>0.0</b>	<b>(327.7)</b>	<b>(308.9)</b>	<b>(289.0)</b>	<b>(329.7)</b>	<b>(330.1)</b>	<b>(298.5)</b>	<b>(264.9)</b>	<b>(453.5)</b>	<b>(507.2)</b>	<b>(486.2)</b>	<b>(446.5)</b>	<b>(404.4)</b>	<b>(471.7)</b>	<b>(431.2)</b>	<b>(386.2)</b>	<b>(319.3)</b>	<b>(246.3)</b>	<b>(168.9)</b>	<b>(86.9)</b>	
<b>2007-2026 RESIDENTIAL FUNDING REQUIREMENTS</b>																					
RESIDENTIAL CASH FLOW - constant (\$000)	365.1	0.0	0.0	57.4	17.3	0.0	0.0	188.6	64.0	0.0	0.0	0.0	83.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	776.6
RESIDENTIAL CASH FLOW - current (\$000)	365.1	0.0	0.0	61.8	19.1	0.0	0.0	224.1	78.0	0.0	0.0	0.0	111.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	861.0
<b>RESIDENTIAL GROWTH</b>																					
- New Residential Units	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	382.0
<b>PROPOSED CHARGE (per unit)</b>																					
2,013 2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013	2,013
<b>REVENUE - current (\$000)</b>	<b>38.5</b>	<b>38.5</b>	<b>38.5</b>	<b>38.5</b>	<b>38.5</b>	<b>51.5</b>	<b>51.5</b>	<b>51.5</b>	<b>51.5</b>	<b>51.5</b>	<b>68.9</b>	<b>68.9</b>	<b>68.9</b>	<b>68.9</b>	<b>68.9</b>	<b>92.1</b>	<b>92.1</b>	<b>92.1</b>	<b>92.1</b>	<b>92.1</b>	<b>1,254.6</b>
- Charge Receipts	38.5	38.5	38.5	38.5	38.5	51.5	51.5	51.5	51.5	51.5	68.9	68.9	68.9	68.9	68.9	92.1	92.1	92.1	92.1	92.1	1,254.6
- Interest on Opening Balance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>TOTAL REVENUE (\$000)</b>	<b>38.5</b>	<b>38.5</b>	<b>38.5</b>	<b>38.5</b>	<b>38.5</b>	<b>51.5</b>	<b>51.5</b>	<b>51.5</b>	<b>51.5</b>	<b>51.5</b>	<b>68.9</b>	<b>68.9</b>	<b>68.9</b>	<b>68.9</b>	<b>68.9</b>	<b>92.1</b>	<b>92.1</b>	<b>92.1</b>	<b>92.1</b>	<b>92.1</b>	<b>1,254.6</b>
<b>CLOSING CASH BALANCE (\$000)</b>	<b>(327.7)</b>	<b>(308.9)</b>	<b>(289.0)</b>	<b>(329.7)</b>	<b>(330.1)</b>	<b>(298.5)</b>	<b>(264.9)</b>	<b>(453.5)</b>	<b>(507.2)</b>	<b>(486.2)</b>	<b>(446.5)</b>	<b>(404.4)</b>	<b>(471.7)</b>	<b>(431.2)</b>	<b>(386.2)</b>	<b>(319.3)</b>	<b>(246.3)</b>	<b>(168.9)</b>	<b>(86.9)</b>	<b>(0.0)</b>	

NON-RESIDENTIAL CASH FLOW

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
<b>OPENING CASH BALANCE (\$000)</b>	<b>0.0</b>	<b>(1,278.9)</b>	<b>(1,206.5)</b>	<b>(1,128.7)</b>	<b>(1,287.6)</b>	<b>(1,289.4)</b>	<b>(1,165.7)</b>	<b>(1,034.7)</b>	<b>(1,771.2)</b>	<b>(1,981.1)</b>	<b>(1,999.0)</b>	<b>(1,744.0)</b>	<b>(1,579.7)</b>	<b>(1,842.4)</b>	<b>(1,684.0)</b>	<b>(1,516.1)</b>	<b>(1,247.1)</b>	<b>(962.1)</b>	<b>(659.9)</b>	<b>(339.5)</b>	
<b>2007-2026 NON-RESIDENTIAL FUNDING REQUIREMENTS</b>																					
NON-RESIDENTIAL CASH FLOW - constant (\$000)	1,430.1	0.0	0.0	224.1	67.7	0.0	0.0	736.4	250.0	0.0	0.0	0.0	324.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,033.1
NON-RESIDENTIAL CASH FLOW - current (\$000)	1,430.1	0.0	0.0	241.3	74.7	0.0	0.0	873.4	304.6	0.0	0.0	0.0	456.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,363.0
<b>NON-RESIDENTIAL GROWTH</b>																					
- Additional GFA - square metres	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	16,312.5	326,250.0
<b>PROPOSED CHARGE (per square metre)</b>																					
8,21 9,21 9,21 9,21 9,21 9,21 9,21 9,21 9,21 9,21 9,21 9,21 9,21 9,21 9,21 9,21 9,21 9,21 9,21 9,21	8,21	9,21	9,21	9,21	9,21	9,21	9,21	9,21	9,21	9,21	9,21	9,21	9,21	9,21	9,21	9,21	9,21	9,21	9,21	9,21	9,21
<b>REVENUE - current (\$000)</b>	<b>150.2</b>	<b>150.2</b>	<b>150.2</b>	<b>150.2</b>	<b>150.2</b>	<b>201.0</b>	<b>201.0</b>	<b>201.0</b>	<b>201.0</b>	<b>201.0</b>	<b>288.9</b>	<b>288.9</b>	<b>288.9</b>	<b>288.9</b>	<b>288.9</b>	<b>359.9</b>	<b>359.9</b>	<b>359.9</b>	<b>359.9</b>	<b>359.9</b>	<b>4,900.1</b>
- Charge Receipts	150.2	150.2	150.2	150.2	150.2	201.0	201.0	201.0	201.0	201.0	288.9	288.9	288.9	288.9	288.9	359.9	359.9	359.9	359.9	359.9	4,900.1
- Interest on Opening Balance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>TOTAL REVENUE (\$000)</b>	<b>150.2</b>	<b>150.2</b>	<b>150.2</b>	<b>150.2</b>	<b>150.2</b>	<b>201.0</b>	<b>201.0</b>	<b>201.0</b>	<b>201.0</b>	<b>201.0</b>	<b>288.9</b>	<b>288.9</b>	<b>288.9</b>	<b>288.9</b>	<b>288.9</b>	<b>359.9</b>	<b>359.9</b>	<b>359.9</b>	<b>359.9</b>	<b>359.9</b>	<b>4,900.1</b>
<b>CLOSING CASH BALANCE (\$000)</b>	<b>(1,278.9)</b>	<b>(1,206.5)</b>	<b>(1,128.7)</b>	<b>(1,287.6)</b>	<b>(1,289.4)</b>	<b>(1,165.7)</b>	<b>(1,034.7)</b>	<b>(1,771.2)</b>	<b>(1,981.1)</b>	<b>(1,999.0)</b>	<b>(1,744.0)</b>	<b>(1,579.7)</b>	<b>(1,842.4)</b>	<b>(1,684.0)</b>	<b>(1,516.1)</b>	<b>(1,247.1)</b>	<b>(962.1)</b>	<b>(659.9)</b>	<b>(339.5)</b>	<b>(0.0)</b>	

- Notes:  
1) Interest Rates  
Charged at (negative balances) 6.0%  
Earned at (positive balances) 4.0%  
2) Annual Inflation Rate 2.5%

HEMSON