



City of Richmond

Report to Committee

To: Finance Select Committee **Date:** November 18, 2005
From: Andrew Nazareth, Acting General Manager of Finance & Corporate Services **File:** 03-0970-01/2005-Vol 01
 Jeff Day, P. Eng., General Manager, Engineering & Public Works
Re: 2006 Utility Budgets

Staff Recommendation

1. That the 2006 Utility Expenditure Budgets outlined in Option 3 in the staff report dated November 18, 2005, from the Managers of Revenue, Water, Engineering Design & Construction, and Environmental Programs, be approved as the basis for establishing the 2006 Utility Rates.
2. That the proposed changes in the Water Connection Charges, as outlined in Attachment 1 of the staff report, be approved.
3. That staff be directed to report directly to Council with the necessary amendment bylaws to bring into effect the proposed Water Connection Charges and the 2006 Utility Rates option recommended by Committee.

Andrew Nazareth
 Acting General Manager of
 Finance & Corporate Services
 (4365)

Jeff Day, P. Eng.
 General Manager, Engineering
 & Public Works
 (4019)

FOR ORIGINATING DIVISION USE ONLY			
		CONCURRENCE OF GENERAL MANAGER	
		for JEFF DAY	
REVIEWED BY TAG	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	REVIEWED BY CAO	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

Staff Report

Origin

This report presents the recommended 2006 utility budgets and rate bylaws for Water, Sewer, Drainage and Solid Waste & Recycling. The utility rates must be established by December 31, 2005 to enable billing in 2006.

Analysis

The impact to the utility budgets is significant in 2006 due to inordinately large increases in regional charges. There are also significant increases in fuel charges, which have not only impacted city vehicle operating costs, but have also resulted in above-average increases in materials and supplies. More specifically:

- GVRD regional water rates have increased 16.8% or \$1.7 million in 2006.
- GVRD regional sewer rates have increased 8%, or approximately \$.7 million.
- Fuel costs have increased 30%, and this has had a direct impact on materials and supplies, which have increased 5%.
- Wages have increased in accordance with the collective agreement and power costs have also been impacted.

Another factor is long-term infrastructure planning to replace ageing/deteriorating infrastructure. Council has adopted a staged program to increase water and sewer reserves to support infrastructure replacement. Additionally, the need for annual funding to support seismic upgrades to the City's dyking system to maximize protection of public and private property was highlighted in a recent report to Council.

Recognizing these competing challenges, staff have presented various budget and rate options for 2006, including discretionary and non-discretionary increases. These options are presented for each of the utility areas in the following sections.

Water

2006 Water Budget - Options				
<i>Key Budget Areas</i>	<i>2005 Base Level Budget</i>	<i>Option 1 Non-Discretionary Increases</i>	<i>Option 2 Non-Discretionary Plus Discretionary Increases with Partial Reserve Increase</i>	<i>Option 3 Non-Discretionary Plus Discretionary Increases with Reserve Increase Per Long-Term Plan</i>
Operating Expenditures	\$6,165,100			
• Equipment/Fuel Increase		\$135,500	\$135,500	\$135,500
• Material/Supply Increase		\$50,600	\$50,600	\$50,600
• Wage Increase		\$86,000	\$86,000	\$86,000
• Plant Growth			\$114,900	\$114,900
• Rain Barrel/Project Wet			\$59,400	\$59,400
• Efficiencies			(\$140,000)	(\$140,000)
Rate Stabilization Contribution	\$900,000		(\$5,200)	(\$5,200)
GVRD Water Purchases	\$10,127,000	\$1,706,000	\$1,706,000	\$1,706,000
Capital Program	\$4,500,000		\$500,000	\$1,000,000
Residential Water Metering Program	\$1,491,200			
Other Fiscal	\$1,000,000			
Total Incremental Increase	\$24,183,300	\$1,978,100	\$2,507,200	\$3,007,200
<i>Revenues:</i>				
<i>Apply Rate Levelling Fund¹</i>		(\$683,000)	(\$683,000)	(\$683,000)
<i>Investment Income</i>	(\$650,000)			
Net Budget	\$23,533,300			
Net Difference Over 2005 Base Level Budget		\$1,295,100	\$1,824,200	\$2,324,200

¹By applying the City's rate levelling fund, the increase in water purchases is partially mitigated.

Regional Issues

Regional District increases represent the major cost driver under all the options. The majority of these costs are for the drinking water treatment program. A new water filtration plant at the Seymour reservoir, scheduled for completion in 2007, is required to meet the new water quality treatment guidelines, introduced in 2001. Another significant driver to the GVRD rates is the ultra-violet disinfection plant at the Coquitlam reservoir. GVRD costs are projected to continue rising at these rates until 2008. After that time, costs will level off as they are transferred to operations and maintenance of these facilities.

Impact on Water Rates

The impact of these various budget options on the water rates by customer class is as follows. The amount of the increase for each option is shown bracketed beneath the rate in italics.

<i>2006 Water Rates Options</i>				
<i>Customer Class</i>	<i>2005 Rates</i>	<i>2006 Option 1 Rate</i>	<i>2006 Option 2 Rate</i>	<i>2006 Option 3 Rate</i>
Single Occupant	\$272.55	\$297.27 <i>(\$24.72)</i>	\$303.48 <i>(\$30.93)</i>	\$309.40 <i>(\$36.85)</i>
Single Family Dwelling	\$328.02	\$357.77 <i>(\$29.75)</i>	\$365.25 <i>(\$37.23)</i>	\$372.37 <i>(\$44.35)</i>
Townhouse	\$275.81	\$292.55 <i>(\$16.74)</i>	\$298.84 <i>(\$23.03)</i>	\$304.83 <i>(\$29.02)</i>
Apartment	\$177.73	\$188.52 <i>(\$10.79)</i>	\$192.57 <i>(\$14.84)</i>	\$196.43 <i>(\$18.70)</i>
Metered Rate (\$/m ³)	\$0.6577	\$0.6713 <i>(\$0.0136)</i>	\$0.6863 <i>(\$0.0286)</i>	\$0.7006 <i>(\$0.0429)</i>

Advantages/Disadvantages of Various Options

Option 1

- Represents the minimal increase necessary to sustain operations.
- Does not allow new water infrastructure to be maintained, and, therefore results in a reduced level of service.
- The rain barrel and project wet programs are not included.
- Does not meet our long-term infrastructure plan to increase the capital program for replacement of ageing infrastructure. Under this option, capital replacement remains at \$4.5 million for 2006.

Option 2

- This option has a lesser impact on the budget and rates than Option 1.
- Provides for sustained operations, maintenance of new water infrastructure, and continuation of the rain barrel and project wet programs.
- Provides for a partial increase in the capital infrastructure program, from \$4.5 to \$5 million.
- Partially meets objective to increase the degree of replacement of ageing water infrastructure.

Option 3

- Has a higher impact on the budget and rates charged to owners.
- Recommended option because it meets all objectives as noted in Option 2, and fully conforms with the planned, phased increases in the long-term replacement program objective for aging infrastructure, increasing the capital program from \$4.5 to \$5.5 million. The goal is to build the program to \$7 million annually.

Proposed Changes in Water Connection Charges

It is proposed to change fees for water connection charges for residential and commercial properties. The proposal is to establish a firm price fee, supplemented by a price per meter. The purpose of this change is to update pricing, as the rates have not been increased for approximately 10 years, as well as to create alignment with the method used for sanitary and storm sewer connection charges. These proposed fees align more closely with actual costs, and create greater equitability. Previously, the rates for short connections were subsidizing the rates for long connections as there is a significant cost associated with crossing the traveled roadway. The fees charged were also not sufficient to recover actual costs. The rates vary depending on connection size and distance. A comparison is shown in Attachment 1. If approved, this change will be incorporated into the amending bylaws which will be brought forward to Council for approval.

Sewer

2006 Sewer Budget - Options				
<i>Key Budget Areas</i>	<i>2005 Base Level Budget</i>	<i>Option 1 Non-Discretionary Increases</i>	<i>Option 2 Non-Discretionary Plus Discretionary Increases with Partial Reserve Increase</i>	<i>Option 3 Non-Discretionary Plus Discretionary Increases with Reserve Increase as per Long-Term Plan</i>
Operating Expenditures	\$3,599,200			
• Equipment/Fuel Increase		\$92,600	\$92,600	\$92,600
• Material/Supply Increase		\$21,500	\$21,500	\$21,500
• Wage Increase		\$59,300	\$59,300	\$59,300
• Plant Growth			\$38,300	\$38,300
• Power Cost Increase		\$8,000	\$8,000	\$8,000
GVS&DD O&M	\$8,429,000	\$730,000	\$730,000	\$730,000
GVS&DD DD Debt	\$4,179,600	\$10,750	\$10,750	\$10,750
Rate Stabilization Contribution	\$1,104,800			
Capital Program	\$2,006,400		\$250,000	\$500,000
Other Fiscal/Debt/Provisions	\$306,600	\$240,865	\$240,865	\$240,865
Total Incremental Increase	\$19,625,600	\$1,163,015	\$1,451,315	\$1,701,315
<i>Revenues:</i>				
<i>Investment Income</i>	<i>(\$150,000)</i>			
<i>Property Tax Levy for DD Debt</i>	<i>(\$4,179,600)</i>	<i>(\$10,750)</i>	<i>(\$10,750)</i>	<i>(\$10,750)</i>
Net Budget	\$15,296,000			
Net Difference Over 2005 Base Level Budget		\$1,152,265	\$1,440,565	\$1,690,565

Regional Issues

GVRD operating increases are due principally to upgrades and expansion of the Lulu Island Sewage Treatment Plant to accommodate future growth, an inspection/cleaning program on the GVRD Gilbert Road trunk main and a projected increase in biosolids production and recycling. GVS&DD debt is based on estimates provided by the GVRD.

Impact on Sewer Rates

The impact of these various budget options on the sewer rates by customer class is provided in the table which follows. The amount of the increase for each option is shown bracketed beneath the rate in italics.

<i>2006 Sewer Rates Options</i>				
<i>Customer Class</i>	<i>2005 Rates</i>	<i>2006 Option 1 Rate</i>	<i>2006 Option 2 Rate</i>	<i>2006 Option 3 Rate</i>
Single Occupant	\$162.65	\$184.43 <i>(\$21.78)</i>	\$187.55 <i>(\$24.90)</i>	\$190.26 <i>(\$27.61)</i>
Single Family Dwelling	\$197.69	\$224.16 <i>(\$26.47)</i>	\$227.96 <i>(\$30.27)</i>	\$231.24 <i>(\$33.55)</i>
Townhouse	\$185.64	\$204.93 <i>(\$19.29)</i>	\$208.49 <i>(\$22.85)</i>	\$211.58 <i>(\$25.94)</i>
Apartment	\$154.61	\$170.68 <i>(\$16.07)</i>	\$173.64 <i>(\$19.03)</i>	\$176.21 <i>(\$21.60)</i>
Metered Rate (\$/m ³)	\$0.4999	\$0.5407 <i>(\$0.0408)</i>	\$0.5504 <i>(\$0.0505)</i>	\$0.5588 <i>(\$0.0589)</i>

Advantages/Disadvantages of Various Options

Option 1

- Represents the minimal increase necessary to sustain operations and results in the least impact to property owners.
- Does not allow us to maintain new sewer infrastructure and, therefore, results in a reduced level of service.
- Does not meet City's long-term infrastructure plan to increase the capital program for replacement of ageing infrastructure. Capital replacement remains fixed at \$2 million for 2006. The objective is to build the annual infrastructure replacement for sewer to \$4.3 million.

Option 2

- Higher impact on the budget and rates charged to property owners.
- Ensures sustained operations, maintenance of new sewer infrastructure, and provides for a partial increase in the capital infrastructure program, from \$2 to \$2.25 million. This option partially meets the City's objective for increasing the degree of replacement of ageing sewer infrastructure.

Option 3

- Highest impact on the budget and rates charged to owners.
- Recommended option because it meets all objectives as noted in Option 2, and fully conforms with the planned, phased increases in the long-term replacement program objective for aging infrastructure, increasing the capital program from \$2 to \$2.5 million.

Drainage and Dyking

<i>2006 Drainage and Dyking Options</i>				
<i>Utility Area</i>	<i>2005 Rates</i>	<i>2006 Option 1 Rate</i>	<i>2006 Option 2 Rate</i>	<i>2006 Option 3 Rate</i>
Drainage	\$33.45	\$44.60	\$44.60	\$44.60
Dyking	\$0	\$0	\$5.55	\$11.11
Total Drainage & Dyking	\$33.45	\$44.60	\$50.15	\$55.71
<i>(Increase Over 2005)</i>		<i>(\$11.15)</i>	<i>(\$16.70)</i>	<i>(\$22.26)</i>

Background

Drainage - In 2003, a drainage utility was created to begin developing a reserve fund for drainage infrastructure replacement costs. The objective is to build the fund to an anticipated annual expenditure of \$4.85 million, subject to ongoing review of the drainage infrastructure replacement requirements.

As adopted by Council in 2003, the rate started at \$11.15 and is increased an additional \$11.15 each year until such time as the \$4.85 million annual reserve requirement is reached -- expected to take approximately 8 years. The rate in 2005 was \$33.45. The options presented above represent the planned increase in 2006 to \$44.60 for all options, as previously approved by Council.

Dyking - At the Council meeting on October 24, 2005, staff presented a status report on dykes. This report recommended that an annual budget amount of \$600,000 be established to undertake structural upgrades at key locations along the dyke, namely No. 3 Road/Gilbert Road south, No. 5 Road/Shell Road south, and the north dyke in east Richmond, east of No. 8 Road. Continued annual funding is required to facilitate further upgrades as identified through further seismic assessments of the dykes. Current funding levels limit activities to sustained operations, maintenance and survey of dykes.

To establish the \$600,000 annual dyke improvement fund, a \$11.11 fee per household/property is required. The options presented above include no amount for dyking in 2006 (Option 1), a charge at one-half of the per-property requirement (Option 2), and the full revenue requirement of \$11.11 (Option 3).

Staff recommend Option 3 for the Drainage and Dyking portion of the utility to ensure sound infrastructure management. The dyking system is critical City infrastructure, and the structural integrity and stability of the dykes is of high importance for safety and protection of property. As such, it is recommended that the full revenue requirement be included for dyking. If approved, the line item on the tax notices would be renamed, "Drainage and Dyke Utility".

Solid Waste & Recycling

2006 Solid Waste & Recycling Budget - Options				
<i>Key Budget Areas</i>	<i>2005 Base Level Budget</i>	<i>Option 1 Non-Discretionary Increases</i>	<i>Option 2² Non-Discretionary Plus Discretionary Increases</i>	<i>Option 3² Non-Discretionary Plus Discretionary Increases</i>
Operating Expenditures	\$427,600			
• Wage Increase		\$7,800	\$7,800	\$7,800
• Efficiencies			(\$6,000)	(\$6,000)
Collection Contracts	\$2,922,100	\$82,200	\$82,200	\$82,200
Disposal Costs	\$2,006,300	\$60,000	\$60,000	\$60,000
Program Costs	\$1,020,700			
• Equipment/Fuel Increase		\$19,300	\$19,300	\$19,300
• Wage Increase		\$13,210	\$13,210	\$13,210
• Efficiencies			(\$24,700)	(\$24,700)
• Litter Attendant – New			\$63,790	\$63,790
Environmental Programs	\$573,300	\$4,100	\$4,100	\$4,100
Rate Stabilization	\$742,400	(\$39,500)	(\$39,500)	(\$39,500)
Total	\$7,692,400	\$147,110	\$180,200	\$180,200
Budget Sub-Total (Option total plus 2005 base level budget)	\$7,692,400	\$7,839,510	\$7,872,600	\$7,872,600

²There is no difference between Options 2 and 3 in Solid Waste & Recycling. Information was repeated for consistency with other utility areas.

Regional Issues

The disposal cost increases shown reflect increases in the quantities of solid waste, yard waste and recycling materials collected for disposal/processing. There is no change in the regional disposal rate for 2005. It is important to note, however, that the delay in provincial approval of the environmental assessment for a new proposed GVRD landfill at Ashcroft ranch is a potential concern. This delay is a result of First Nations concerns and an alternative strategy which has been proposed by Teck Cominco Ltd. to develop a new landfill at Highland Valley Copper near Logan Lake. The First Nations concerns center around potential impacts to adjacent properties, even though the Ashcroft Ranch property is on fee simple land. The Highland Valley Copper site is owned by Teck Cominco. Richmond staff see many potential concerns with this proposal, including land tenure issues, given this open pit mine is on crown land. This proposal has also not gone through the extensive environmental review that has already been conducted at Ashcroft Ranch. It is also highly unlikely that this site would be publicly controlled, which has significant potential to impact disposal costs and collection competition in the GVRD. For these reasons, Richmond staff strongly support the GVRD Ashcroft Ranch landfill proposal.

Impact on Rates

The impact of these various budget options is provided in the table which follows. The amount of the increase for each option is shown bracketed beneath the rate in italics.

<i>2005/2006 Solid Waste & Recycling Rates Options</i>				
<i>Customer Class</i>	<i>2005 Rates</i>	<i>2006 Option 1 Rate</i>	<i>2006 Option 2 Rate</i>	<i>2006 Option 3 Rate</i>
Single Occupant	\$205.48	\$207.61 <i>(\$2.13)</i>	\$208.18 <i>(\$2.70)</i>	\$208.18 <i>(\$2.70)</i>
Single Family Dwelling	\$205.48	\$207.61 <i>(\$2.13)</i>	\$208.18 <i>(\$2.70)</i>	\$208.18 <i>(\$2.70)</i>
Townhouse	\$165.40	\$166.47 <i>(\$1.07)</i>	\$167.04 <i>(\$1.64)</i>	\$167.04 <i>(\$1.64)</i>
Apartment	\$44.97	\$44.97 <i>(\$0)</i>	\$45.19 <i>(\$.22)</i>	\$45.19 <i>(\$.22)</i>
Metered Rate (\$/m ³)	\$23.35	\$23.35 <i>(\$0)</i>	\$24.00 <i>(\$.65)</i>	\$24.00 <i>(\$.65)</i>

Options 2 and 3 include funding for a new position, which is requested for Litter Operations. This request relates to an 8% growth in the amount of parks acreage requiring service, an 11% increase in the amount of garbage collected on City lands, and a 22% increase in service requests performed by Litter Operations staff. The cost for this position is \$63,790, including salary and benefits.

Staff recommend Option 2/3.

Total 2006 Utility Rate Options

The total 2006 utility billing, including the four major utility areas, is detailed in the following table, which shows the total utility rate options by customer class for 2006. A comparison to 2005 rates is also provided. The increases over 2005 rates for each option are shown in bracketed italics beneath the rate amount.

2006 Total Annual Utility – Rate Options				
<i>Customer Class</i>	<i>2005 Rates</i>	<i>Total Option 1 Rate</i>	<i>Total Option 2 Rate</i>	<i>Total Option 3 Rate</i>
		<i>Non-Discretionary Increases</i>	<i>Non-Discretionary Plus Discretionary Increases with Partial Reserve Increase</i>	<i>Non-Discretionary Plus Discretionary Increases with Reserve Increase Per Long-Term Plan</i>
Single-Occupant (Single-Family Dwelling)	\$674.13	\$733.91 <i>(\$59.78)</i>	\$749.36 <i>(\$75.23)</i>	\$763.55 <i>(\$89.42)</i>
Single-Family Dwelling	\$764.64	\$834.14 <i>(\$69.50)</i>	\$851.54 <i>(\$86.90)</i>	\$867.50 <i>(\$102.86)</i>
Single-Occupant Townhouse (on City garbage service)	\$634.05	\$692.77 <i>(\$58.72)</i>	\$708.22 <i>(\$74.17)</i>	\$722.41 <i>(\$88.36)</i>
Townhouse (on City garbage service)	\$660.30	\$708.55 <i>(\$48.25)</i>	\$724.52 <i>(\$64.22)</i>	\$739.16 <i>(\$78.86)</i>
Single-Occupant Townhouse (not on City garbage service)	\$535.82	\$593.47 <i>(\$57.65)</i>	\$608.92 <i>(\$73.10)</i>	\$623.11 <i>(\$87.29)</i>
Townhouse (not on City garbage service)	\$562.07	\$609.25 <i>(\$47.18)</i>	\$625.22 <i>(\$63.15)</i>	\$639.86 <i>(\$77.79)</i>
Apartment	\$410.76	\$448.77 <i>(\$38.01)</i>	\$461.55 <i>(\$50.79)</i>	\$473.54 <i>(\$62.78)</i>
Metered Water (\$/m ³)	\$0.6577	\$0.6713 <i>(\$0.136)</i>	\$0.6863 <i>(\$0.0286)</i>	\$0.7006 <i>(\$0.0429)</i>
Metered Sewer (\$/m ³)	\$0.4999	\$0.5407 <i>(\$0.0408)</i>	\$0.5504 <i>(\$0.0505)</i>	\$0.5588 <i>(\$0.0589)</i>
Business: Garbage	\$23.35	\$23.35 <i>(\$0.00)</i>	\$24.00 <i>(\$0.65)</i>	\$24.00 <i>(\$0.65)</i>
Business: Drainage & Dyking	\$33.45	\$44.60 <i>(\$11.15)</i>	\$50.15 <i>(\$16.70)</i>	\$55.71 <i>(\$22.26)</i>

The Option 3 rate is recommended to ensure best management practices concerning infrastructure maintenance are maintained and that the adopted strategy for long-term infrastructure replacement is continued.

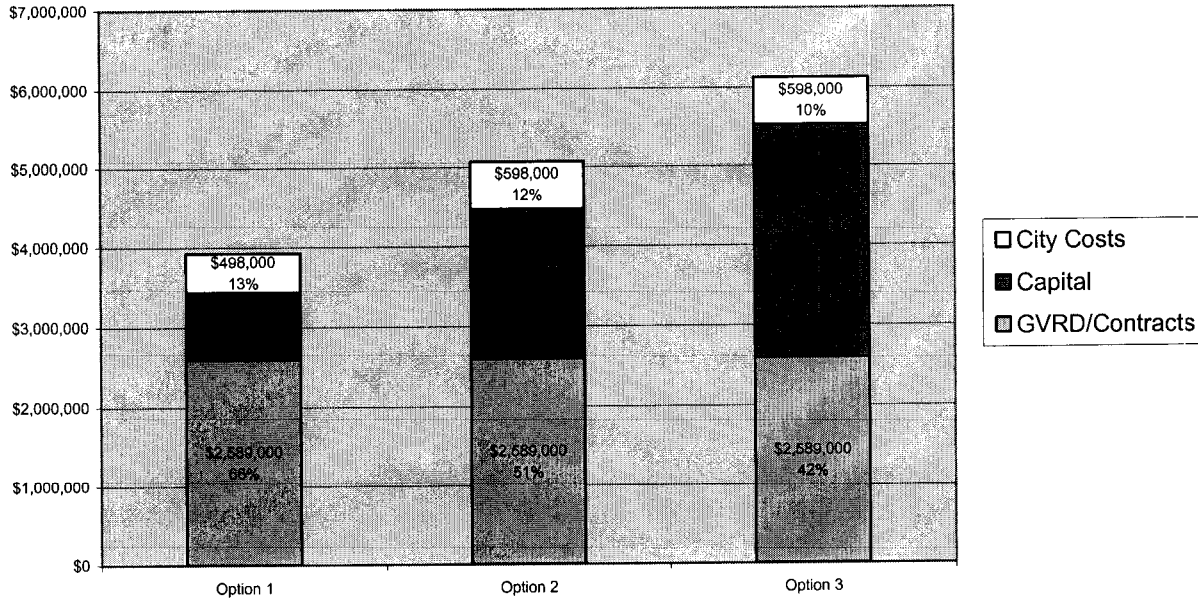
Financial Impact

The budgetary and rate impacts associated with each option are outlined in detail in this report. In all options, the budgets and rates represent full cost recovery for each respective area. The Option 3 rates maintain the existing practices of reserve funding for capital replacement programs.

Conclusion

The utility rate strategy represents a comprehensive approach to addressing current and pending increases in regional charges for water purchases, water filtration and sewer treatment in future years. The following graphs demonstrates the key factors driving cost increases for each option in 2006 in the areas of regional charges, capital infrastructure replacement programs and City costs.

2006 Utility Budget Increases - Impact Areas



As demonstrated in these charts, regional increases continue to be a significant cause of increases in utility rates. This trend will continue for the foreseeable future as the challenges associated with addressing growth and new demands for water treatment are managed. City cost increases are minimized to the degree possible, with the principal drivers being growth and issues outside of our direct control, such as inflation. As the City continues to grow, sound financial management is required to ensure we keep pace with the challenges associated with replacement and maintenance of ageing critical infrastructure and ensuring the stability of the dyking system given our proximity within an active seismic region.

Summary - Option 1

Represents the minimal increase necessary to meet basic demands, but represents a reduction in service levels in that it does not provide for maintenance of new infrastructure acquired through growth. This option is not recommended.

Summary - Option 2

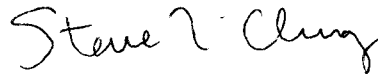
Provides for existing service levels to be maintained and provides for additional capital to partially meet the demands associated with replacement of ageing infrastructure as well as seismic upgrades of a portion of that which has been identified to date for the dyking infrastructure. This option is not recommended because it does not meet long-term infrastructure replacement demands.

Summary - Option 3

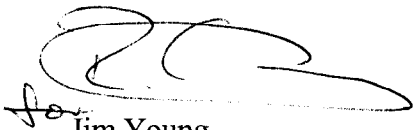
Maintains existing service levels and meets the requirements that have been previously identified and endorsed by Council for long-term infrastructure replacement as well as seismic upgrading of those areas of the City's dyking infrastructure which have been identified for improvement at this time. For these reasons, Option 3 is recommended.



Suzanne Bycraft
Manager, Environmental Programs



Steve McClurg
Manager, Water Services



Jim Young
Manager, Engineering Design & Construction



Ivy Wong,
Manager - Revenue

:sjb

Attachment 1

Proposed Water Service Connection Fee Structure
(as per Schedule D of Amending Bylaw)

Service Diameter	Long/ Short*	Previous Firm Price	New Firm Price	+ New price per Meter*	New Total Price
25mm	L S	\$2,500	\$1,800	\$175	L - \$4,250 S - \$2,850
40mm	L S	\$3,000	\$2,400	\$175	L - \$4,850 S - \$3,450
50mm	L S	\$3,900	\$2,400	\$175	L - \$4,850 S - \$3,450
100mm	L S	\$6,500	\$6,900	\$350	L - \$11,800 S - \$9,000
150mm	L S	\$8,500	\$7,100	\$350	L - \$12,000 S - \$9,200
250mm	L S	\$11,000	\$7,300	\$350	L - \$12,200 S - \$9,400

*assume 6 meters for short service and 14 meters for long service