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ADMINISTRATIVE REPORT

Report Date: November 17, 2009
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Meeting Date: December 1, 2009

TO: Vancouver City Council
FROM: General Manager of Engineering Services
SUBJECT: 2010 Sewer Rates and Changes to the Sanitary Sewer Utility

RECOMMENDATION

- A. THAT Council approve the 2010 sanitary sewer user rates as detailed in this report, with metered rate increased by 17.5%, annual flat fees for single dwelling units increased by \$32 (from \$195 to \$227), and other sanitary sewer user rates as set out in Appendix A (Schedule A).
- B. THAT the 2010 public sewer connection fees included in the Sewer and Watercourse Bylaw as set out in Appendix A (Schedule A) be increased by 4% as follows:
 - Public sewer connection fees for one or two family dwellings,
 - Public sewer connection fees for properties other than one and two family dwellings, and
 - Sewer connection inspection fees.
- C. THAT 2010 Biochemical Oxygen Demand/Total Suspended Solids/Flow (BOD/TSS/Flow) rates payable by waste discharge permit users ("permitted industrial users") be set as per Appendix A (Schedule B).
- D. That the Director of Legal Services be instructed to bring forward for enactment all necessary amendments to the Sewer and Watercourse By-law generally in accordance with Appendix A.

GENERAL MANAGER'S COMMENTS

The General Manager of Engineering Services RECOMMENDS approval of A through D above.

CITY MANAGER'S COMMENTS

The City Manager RECOMMENDS approval of A through D above.

COUNCIL POLICY

Sanitary sewer user fees, Sewer BOD/TSS/Flow rates for Permitted Industries and public sewer connection fees are reviewed annually by Council to establish the following year's rates.

On April 4, 2000, Council approved the implementation of user fees for sanitary sewer services effective July 1, 2000. On December 14, 2000, Council deferred implementation of the second phase of the sewer utility.

On June 26, 2008, Council approved in principle the revised BOD/TSS/Flow Rates charged to Permitted Industries with implementation effective January 1, 2009.

On December 18, 2009, Council approved the implementation of a consumption based charge to fund sanitary sewer infrastructure costs effective January 1, 2009, with 50% of the annual costs being distributed in the general purpose tax levy and the balance being distributed as user fees, and THAT 100% of the costs be distributed as user fees beginning January 1, 2010.

SUMMARY

For many years, the City has been working towards implementation of user fees for sewer services. Prior to July 1, 2000, all of the costs related to the City's sewer system were funded from the general purposes property tax levy in the Revenue Fund. On April 4, 2000, Council approved the implementation of user fees for sanitary sewer services to fund the operating portion of the sanitary sewer costs based on volume.

In December 2008, Council approved shifting the remainder of the sanitary sewer costs (the infrastructure costs) from general taxes to user fees. Only the storm sewer system costs continue to be funded by property taxes.

This shift results in an increase in customers' sewer fees of approximately 14%, however, this is a revenue-neutral change overall in that the increase in user fees is offset by a reduction in the property tax levy. The net impact of these changes on individual property owners depends on the assessed value of the property, and for metered users, their use of the sewer system. For a typical single-family home valued at approximately \$900,000, the impact is about a \$6 net increase including both the shift to user fees as well as an inflationary increase in the budget of the Sewer Utility.

In order to mitigate the impact for those users who are experiencing an overall increase in costs, Council approved a phased implementation with half of the sanitary infrastructure costs being shifted to user fees in 2009 and the remainder in 2010.

Therefore, this report sets out the 2010 user rates based on shifting the remainder of the sanitary infrastructure costs from general taxes to user fees as well as general fee increases based on the normal annual review of rates.

PURPOSE

The purpose of this report is to recommend revised sanitary sewer fees, Sewer BOD/TSS/Flow rates and public sewer connection fees for 2010 and to complete the approved implementation of a sewer utility fee that includes the entire sanitary sewer system costs.

BACKGROUND

Transition to a User Fee Based Utility

The transition from assessment-based property tax charges for sewer services to user fees reflecting consumption was first raised by the 1989 Municipal Taxation Commission. The Commission concluded that the city could benefit by increasing the diversity of its revenue sources and identified a self-funding Sewer Utility as the strongest option for reducing the dependence on property tax.

On September 12, 1995, Council approved the creation of a sewer utility and during 1997, the Citizen's Advisory Group on Property Taxation endorsed the underlying principles. On April 4, 2000, Council approved the introduction of the first phase of sewer user fees, specifically fees for consumption-based components of the sewer system. Council also confirmed its support for the implementation of a user-pay based sewer utility that would include charges for sanitary and storm systems.

Before the implementation of sewer utility fees, sewer system costs were blended in with other City services recovered through the general property tax levy. When Council approved the implementation of sewer fees in 2000, a partial sewer utility was established and the operating costs of the sanitary sewer system were removed from general taxes.

On May 16, 2000, Council approved the creation of a Sewer Rate Stabilization Reserve. The purpose of this reserve is to stabilize rates over the long term. Many factors affect the actual revenue and expenditures in a given period and this reserve provides a mechanism so that any costs variances associated with the sanitary sewer system does not affect the tax supported Operating Budget. Any surpluses or shortfalls in revenue during a period are transferred to or from the reserve.

In December of 2008, Council approved the implementation of a flow-based charge that would include all of the sanitary sewer costs - operating and infrastructure.

At that time, Council approved a strategy of shifting the sewer infrastructure costs over two years in order to mitigate the impacts for those users who would experience an increase in cost. If the entire shift had been made in 2009, it would have meant that approximately \$10.4 million would have been transferred from general taxes to user fees; therefore, staff recommended that \$5.2 million be transferred in 2009 with the balance of infrastructure costs being transferred in 2010. Staff also recommended that \$1 million be transferred from the Sewer Rate Stabilization Reserve in each of the two years to further mitigate the change in fees.

Sewer Utility Structure

The City sewer system has two main components, the sanitary system collects wastewater from homes and businesses, while the storm system handles surface run off from private and public property. The system delivers this liquid waste to the treatment facilities operated by the Greater Vancouver Sewerage and Drainage District (GVS&DD) and to stormwater outfalls along the City's waterfront.

The costs associated with the City's Sewer System were \$73.1 million (budgeted) in 2009. Expenditures are comprised of three main components: the levy charged by the GVS&DD for treatment (61%), City debt charges (29%), and City operating and maintenance costs (10%).

The Vancouver system was originally constructed as a combined system in which sanitary and storm flows are both collected in the same pipe system and are disposed of together through a Metro Vancouver treatment plant. The combined system therefore requires more treatment capacity and is also subject to overflows during heavy rainfall events. The City has recognized the disadvantages of a combined system and a long-term program to separate the components is well underway. In the meantime, it is more difficult to determine how the City's total sewer costs should be allocated when many of the sewer pipes carry both sanitary and storm flows. A technical assessment of the system has been developed to determine the most appropriate distribution between the storm and sanitary system costs. This results in the sewer costs being collected from properties in three ways as outlined in Table 1.

Table 1 - Summary of Sewer Utility Funding Sources

Source of Funds	Expenditure Funded	Approximate Distribution
1. User Fees	Sanitary System Costs	60.6%
2. Special Discharge Fees for Permitted Industries (BOD/TSS/Flow Charges)	Treatment Costs	2.2%
3. Assessment Based Property Taxes	Storm System Costs	37.2%

User fees are collected in two ways; through metered rates that apply to multi-family, commercial and industrial users and through flat rates that apply to unmetered single-family residential properties.

DISCUSSION**2010 Sewer Budget and Rates**

The proposed 2010 sewer operating budget is summarized in Table 2 with the 2009 budget for comparative purposes.

**Table 2
Proposed 2010 Budget and Sewer Rates**

	2009 Budget	Proposed 2010 Budget	% Change
(A) Expenditures			
GVS&DD Levy	\$44,302,608	\$46,589,036	5.2%
Sewer Debt Charges	\$21,471,400	\$22,191,200	3.4%
Operating and Maintenance	\$7,342,197	\$7,675,900	4.5%
Total Expenditures	\$73,116,205	\$76,456,136	4.6%
(B) Revenues			
Funded by Sewer User Fees	\$38,669,489	\$45,635,543	18.0%
Funded by General Property Taxes	\$31,823,371	\$27,891,559	-12.4%
BOD/TSS/Flow Revenues	\$1,600,000	\$1,667,000	4.2%
Transfer (to)/from Stabilization Reserve	\$1,023,345	\$1,262,034	
Total Revenues	\$73,116,205	\$76,456,136	4.6%
Sewer User Fees Details:			
Sewer Fees - Flat Rate	\$16,384,100	\$19,070,647	16.4%
Sewer Fees - Metered	\$22,502,600	\$26,440,555	17.5%
Industrial Waste Water Fees	\$256,800	\$607,141	136.4%
	\$39,143,500	\$46,118,343	17.8%
Less: Sewer Billing and Admin Costs	\$474,011	\$482,800	1.9%
Net Funding from Sewer User Fees	\$38,669,489	\$45,635,543	18.0%
Rates			
Flat Rates	\$195	\$227	16.4%
Metered Rates	1.243	1.460	17.5%
Industrial Waste Water Fees	0.1807	0.4272	136.4%

a) Expenditures

The Sewer Utility expenditures consist of three components: the GVS&DD levy, City operating costs and debt costs associated with Sewers Capital Plan expenditures. The proposed 2010 budget includes a 4.5% increase in operating expenditures, mainly to cover inflationary increases in staffing. The city debt costs are also projected to increase in 2010 by approximately 3.4%.

Metro Vancouver has approved a 5.2% increase to the Vancouver levy for 2010. This increase of approximately \$2.4 million is driven by costs as a result of aging infrastructure.

b) Revenues

As previously stated, Council approved a phased implementation with half of the sanitary infrastructure costs being shifted to user fees in 2009 and the remainder in 2010. The increases in the expenditures and the shift of the remainder of sanitary system costs result in the proposed 18% increase in user fees. This is partially offset by a reduction to the tax supported funds of 12.4%.

Permitted users - those industries that discharge more than 300 cubic meters of wastewater over a 30-day period - pay two types of fees for their liquid waste: Industrial waste water fees and Biochemical Oxygen Demand/Total Suspended Solids/Flow (BOD/TSS/Flow).

- ▶ BOD/TSS/Flow: The permittees' GVS&DD portion of costs is covered by the BOD/TSS/Flow revenues which are projected to increase by 4.13% overall.
- ▶ Industrial waste water fee: This is a metered rate covering only City costs and is less than the metered rate charged to other customers (which includes both City and GVR&DD costs). However, because this fee covers only City costs, the shifting of the City's sanitary infrastructure costs has a greater proportionate impact to this rate. On average, this fee is less than 20% of their total sewer fees per year and therefore the impact on their total sewer fees is less than the impact on regular metered customers.

c) Sewer Rates Stabilization Reserve

As with the Water and Solid Waste Utilities, the Sewer Utility maintains a rate stabilization reserve to mitigate the impact of fluctuating revenues and expenditures. Since metered properties' sanitary sewer fees are based on water consumption, revenues can fluctuate depending on weather. Expenditure increases are typically driven by the GVS&DD levy that funds regional infrastructure and sewage treatment.

In 2009, staff recommended the use of the rate stabilization reserve to mitigate the impact of shifting the sanitary infrastructure costs to user fees. Approximately \$1 million was budgeted to be transferred from the reserve in 2009 and staff recommend a similar transfer in the 2010 proposed budget.

Past practice has been to achieve a balance equal to 7.5% of water purchases in the Sewer Rates Stabilization Reserve, which is \$4.6 million based on 2010 budgeted water purchases. Based on the proposed strategy of transferring \$1 million from the reserve in 2009 and in

2010, the balance of the reserve is projected to be approximately \$5.7 million at the end of 2010. Because staff are anticipating the need to mitigate projected GVS&DD costs in future years, it is preferable that the balance in the reserve increase in the short term.

d) Provincial Harmonized Sales Tax

It should be noted that fees collected under the Sewer and Watercourse By-law are not subject to GST and thus would not be impacted by the introduction of the Provincial Harmonized Sales Tax (HST) when it comes into effect on July 1, 2010.

CONCLUSION

Rates for sewer services are adjusted annually to offset cost increases in the sewer utility, including operating and debt charge costs and the GVS&DD levy. The proposed rates and budget in this report complete the shift of sanitary infrastructure costs from general taxes to user fees as approved by Council in December of 2008. The transfer of \$1 million from the Sewer Rates Stabilization Reserve mitigates the impact of the shift to user fees.

Based on a review of the sewer costs for 2010, it is recommended that sewer fees be increased by approximately 17% and service and connection fees be increased by 4%, as described in this report.

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Schedule A

Part I: Sewer Connection Flat Rates

	2009	Proposed 2010
1. Public Sewer Connection, for One-Family or Two-Family Dwellings	\$7,306	\$7,598
2. Public Sewer Connection, other than One-Family or Two-Family Dwellings		
a) 4 inch/100 mm diameter	\$10,162	\$10,568
b) 6 inch/150 mm diameter	\$12,265	\$12,756
c) 8 inch/200 mm diameter	\$13,875	\$14,430
d) 10 inch/250 mm diameter	\$16,007	\$16,647
e) 12 inch/300 mm diameter	\$18,188	\$18,916
f) 15 inch/375 mm diameter	\$20,339	\$21,153
g) Greater than 15 inch/375 mm diameter pursuant to Sentence 2.7 of Sewer and Watercourse By-law	\$20,339	\$21,153
h) Manhole installation in conjunction with a public sewer connection pursuant to Sentence 2.7 (3) of Sewer and Watercourse By-law		At Cost pursuant to Sentence 2.7 (3)
3. Where a public sewer connection will be placed more than 5 feet below the ground elevation, taken to the nearest foot and measured at the centre line of the street or lane as determined by the City Engineer, the fees payable shall be an amount equivalent to an increase of 10%, for each additional foot below 5 feet, of the fee otherwise payable by section 1 or 2 above.		
4. New fitting on a twin sewer pursuant to Sentence 2.7 (4)	\$3,791	\$3,943
5. New fitting on a single sewer pursuant to Sentence 2.7 (4)	\$1,671	\$1,738
6. Inspection of a plumbing system, subsoil drainage pipes and a building sewer	\$238	\$248

Part III: Flat Rates for Unmetered Property

	2009	Proposed 2010
Single Family Dwelling	\$195	\$227
Single Family Dwelling with Suite	\$264	\$307
Strata Duplex (per dwelling unit)	\$132	\$154
2 Services, 1 Lot	\$390	\$454
3 Services, 1 Lot	\$585	\$681
4 Services, 1 Lot	\$780	\$908
Parking Lot/Garden	\$111	\$129

Part IV: Flat Rates for Other Property or Shut Off Water Service

	2009	Proposed 2010
Other Property	\$111	\$129
Turned Off, 1 Service	\$111	\$129
Turned Off, 2 Services	\$111	\$129
Turned Off, 3 Services	\$111	\$129

Part V: Unit-Based Rates for Metered Property

Metered Property Rate	\$1.243	\$1.460
Waste Discharge Permit User Rate	\$0.18069	\$0.42720

Schedule B

Part II: BOD/TSS/Flow Rates

A. Usage-Based Rate:

BOD Load Rate (per kilogram of BOD Load)	\$0.047	\$0.047
TSS Load Rate (per kilogram of TSS Load)	\$0.394	\$0.481
Flow Rate (per cubic metre of Flow)	\$0.059	\$0.055

B. GVS&DD Sewage Facility - Capacity Utilization Rate:

BOD Load Capacity Utilization Rate (per Average BOD Load/Operating Day/ per year)	\$43.40	\$43.91
TSS Load Capacity Utilization Rate (per Average TSS Load/Operating Day/ per year)	\$47.14	\$46.39
Flow Load Capacity Utilization Rate (per Average Flow/Operating Day/ per year)	\$18.85	\$19.78