



# RR-3(c)

## ADMINISTRATIVE REPORT

Report Date: November 13, 2012  
Contact: Brian Crowe  
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VanRIMS No.: 08-2000-20  
Meeting Date: November 27, 2012

TO: Vancouver City Council  
FROM: General Manager of Engineering Services  
SUBJECT: 2013 Annual Review of Sewer Rates under the Sewer & Watercourse By-law

### *RECOMMENDATION*

- A. THAT Council approve the 2013 sanitary sewer user rates as detailed in this report, with the metered rate increased by 5%, annual flat rates for single dwelling units increased by 5% (from \$273 to \$287), and other sanitary sewer user rates as set out in Appendix A (Schedule A).
- B. THAT the 2013 public sewer connection fees included in the Sewer and Watercourse Bylaw as set out in Appendix A (Schedule A) be increased by 3%.
- C. 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 B.

### *REPORT SUMMARY*

The purpose of this report is to recommend revised sanitary sewer fees and public sewer connection fees for 2013.

### *COUNCIL AUTHORITY/PREVIOUS DECISIONS*

Sanitary sewer user fees 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 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. This shift was implemented over two years and was complete in 2010. Currently, only the storm sewer system costs are funded by property taxes.

In December 2011, Council approved annual transfers between the Water Rate Stabilization Reserve and the Sewer Rate Stabilization Reserve based on the impact that weather related water consumption has on revenues in each utility.

## *REPORT*

### *Background/Context*

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 Sewer Utility expenditures consist of three types of costs: the Greater Vancouver Sewerage and Drainage District (GVS&DD) levy, City operating costs and debt costs associated with Sewers Capital Plan expenditures.

The sanitary system is funded through sewer user rates and the storm system is funded through general property taxes. There are three types of sewer users in the City of Vancouver and they each pay for sewer service in a different way:

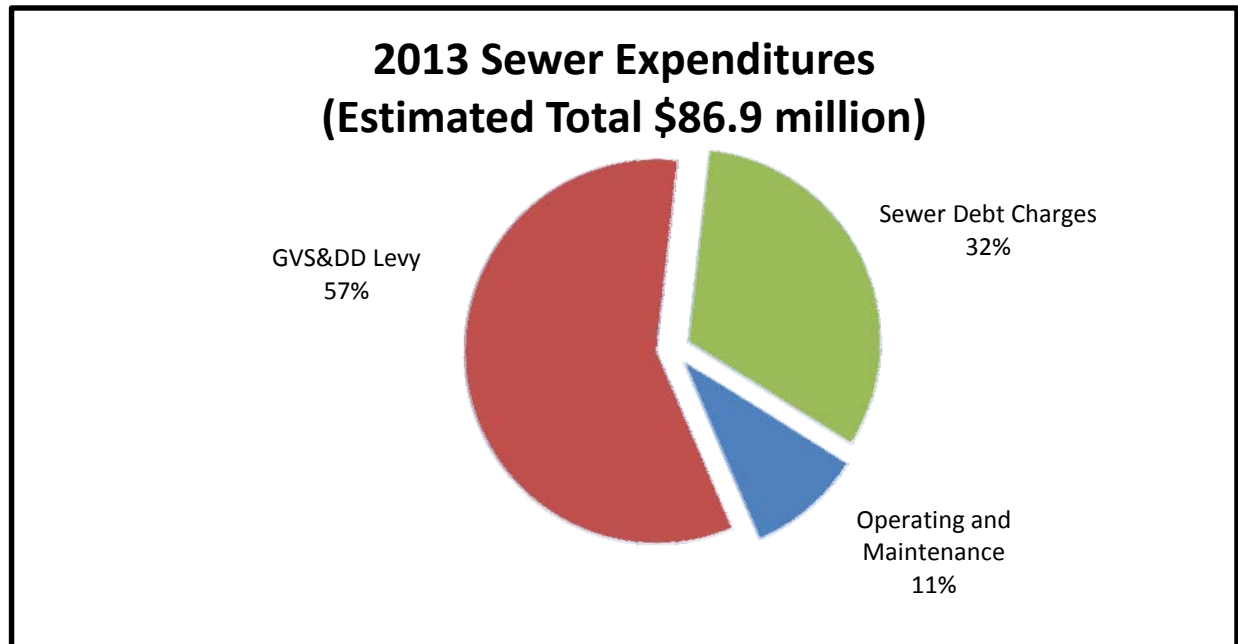
- 1) Single family dwellings and duplexes pay a flat rate on their tax bill that covers all three types of costs;
- 2) Multi-family dwellings and commercial properties pay a metered rate billed quarterly that covers all three types of costs;
- 3) Permitted industries - those industries that discharge more than 300 cubic meters of wastewater over a 30-day period - pay industrial waste water fees on a quarterly basis. These fees only cover City of Vancouver costs (operating and capital) as these customers pay GVS&DD directly for sewage treatment. There are 43 permitted industries in Vancouver.

Rates and fees for sewer services are adjusted annually to offset cost increases in the sewer utility. In 2013 staff are recommending a 5% increase in sewer rates. This will be required to fund increased capital costs, Greater Vancouver Sewerage & Drainage District costs as well as continuing to add to the Sewer Rate Stabilization Reserve as discussed in detail in this report.

### *Strategic Analysis*

Sewer Utility expenditures consist of three components: the Greater Vancouver Sewerage and Drainage District (GVS&DD) levy which makes up about 58% of the total budget, City operating costs which make up about 10% of the total budget and debt costs associated with Sewers Capital Plan expenditures which make up about 32% of the budget as shown graphically in Figure 1 below. A description of each component and its related activities follows.

*Figure 1*



#### *GVS&DD Levy*

Metro Vancouver imposes a levy on each member municipality annually to cover the cost of regional collection and sewage treatment facilities. The levy is a fixed amount based on the operating and capital budgets in each of the sewerage areas in the region. The Iona Wastewater Treatment Plant provides primary sewage treatment to the City of Vancouver and drives the costs for the Vancouver Sewerage Area. The Iona plant must be upgraded to secondary treatment by no later than 2030.

#### *Sewer Capital Program (Debt Charges)*

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 Metro Vancouver's treatment plant. The system therefore requires more treatment capacity and is also subject to combined sewer overflows (CSO's) into surrounding water bodies during heavy rainfall events.

Combined sewers were accepted practice when Vancouver's system was built. Best practice systems now have separate storm and sanitary pipes which keep most storm water out of the

sanitary system and thus eliminate the potential for overflows of sanitary sewage. Vancouver is midway through a long-term program to separate the remaining combined sewers.

Under the Integrated Liquid Waste Resource Management Plan (ILWRMP), the City is required to eliminate CSO's by 2050. This is being accomplished primarily by replacing older sewers with twinned or separated new pipes when they reach the end of their useful life.

Though each year shows a small change in the total amount separated, we expect to have the majority separated by 2050 (see Table 1). This will lead to reduced incidents of flooding and dramatically improving the quality of the water that is discharged into False Creek, English Bay, and the Fraser River. Note that elimination of CSO's can be achieved prior to completing separation of the entire system.

*Table 1 - Sewer Utility Metrics*

Service	Metric Type	Metric	2008	2009	2010	2011	2012F
Sewers and Storm Water	Quantity / Quality	Km of sewers separated per year		10.8	12.8	12.9	12.8
		cost per KM of sewer, separated		\$ 2,494,000.00	\$ 2,660,000.00	\$ 2,645,000.00	tba
		% of system which has separated storm and sanitary sewers		42.58%	43.49%	44.40%	45.31%
	Result	# of sewer connection trouble calls			1063	1267	1303
		# of home / business flooding claims received	92	157	256	48	34 (ytd)
		# of coliform limit exceedances (beaches & False Creek)	1	0	0	0	0

Separating the storm and sanitary sewer mains when replacing mains that are at the end of their useful life, make up the largest component of the sewer capital program costs at approximately 80%. The other activities in the sewer capital program include replacing or upgrading aging pump stations, and replacing smaller components in the system such as manholes, catch basins and aging connections (new connections are privately funded and are discussed later in this report).

In 2013, the Sewer Utility plans to separate an additional 14 km of sewers (1.0% of the system), including the last major combined sewers in Kitsilano, and replace a 100 year old sewer on Eton Street. We also plan to replace an outdated sewage pump station at 1st & Boundary, and design the upgrade of another pump station for construction in 2014.

The sewers capital program is funded through debentures and the annual charges to the operating budget are made up of several years of borrowing. The impact of capital spending on the operating budget is gradual and spread over several years.

### Operating and Maintenance

Sewer operating and maintenance costs are associated with cleaning, repairing, inspecting and managing the infrastructure, as well as emergency response for sewer backups and flooding. Tasks include unblocking mains and connections, dealing with tree root intrusions, doing CCTV inspections, cleaning and maintaining catch basins, maintaining sewer pump stations, and working with property owners to locate and eliminate cross connections.

Although City operating costs only comprise about 10% of the utility budget, efficiency improvements are continuously sought. In 2013 operations under investigation include:

- Reducing the current crews who respond to calls from residents regarding sewer backups or surface flooding, from two standby personnel to a single first responder. This is more consistent with how other operations in the city and region operate and is not expected to impact the level of service being provided.
- Revising our routing processes in dispatching sucker trucks using GPS. By being more strategic about where they are sent to respond to calls, travel time is not wasted crisscrossing routes.

### *Implications/Related Issues/Risk (if applicable)*

#### *Financial*

### 2013 Sewer Budget and Rates

The proposed 2013 sewer operating budget is summarized in Table 2 with the 2012 budget and forecast for comparative purposes, and rate details are provided in Table 3.

*Table 2*

	2012 Forecast	2012 Budget	Preliminary 2013	\$ Inc/(Dec) from 2012 Budget	% Inc/(Dec) from 2012 Budget
<b><u>EXPENDITURES (\$ millions)</u></b>					
Sewer Operating & Maintenance	8.73	8.93	9.42	0.49	5.4%
Debt Charges	26.41	26.41	27.90	1.49	5.7%
GVS&DD Levy	47.86	47.86	49.61	1.75	3.7%
Transfer to/(from) Rate St. Reserve	1.07	1.75	0.94	(0.82)	-46.6%
<b>TOTAL EXPENDITURES</b>	<b>84.06</b>	<b>84.96</b>	<b>87.87</b>	<b>2.91</b>	<b>-31.8%</b>
<b><u>FUNDING SOURCES (\$ millions)</u></b>					
Funded by Sewer User Rates	53.41	54.39	55.81	1.42	2.6%
Funded by General Property Taxes	30.56	30.56	32.05	1.49	4.9%
<b>TOTAL FUNDING</b>	<b>83.98</b>	<b>84.96</b>	<b>87.87</b>	<b>2.91</b>	<b>3.4%</b>

Table 3

<b>Sewer User Fee Details (\$ millions)</b>	2012	2012	Preliminary	\$ Inc/(Dec)	% Inc/(Dec)
	Forecast	Budget	2013	from 2012 Budget	from 2012 Budget
Sewer Fees - Flat	23.14	22.91	24.06	1.15	5.0%
Sewer Fees - Metered	29.00	30.21	30.45	0.24	0.8%
Industrial Waste Water Fees	0.68	0.68	0.71	0.03	5.0%
Other Revenues	0.59	0.59	0.59	-	0.0%
Total Revenues	53.41	54.39	55.81	1.42	2.6%
<b>RATES</b>					
Flat Rates	273	273	287	14	5%
Metered Rates	1.754	1.754	1.842	0.088	5%
Industrial Waste Water Fees	0.57	0.57	0.599	0.029	5%

### Expenditures

Metro Vancouver has approved a 3.65% increase in the GVS&DD levy. This increase is being driven by operating costs at the Iona Wastewater Treatment Plant. This is lower than previously estimated increases, mainly due to a decrease in the GVS&DD capital budget. Metro staff have forecasted cost increases of 5% (including a 1.5% growth factor) per year over the next 5 years. Each sewerage area is calculated separately and will vary according to their facilities operational and capital requirements.

Capital spending for sewer separation and infrastructure management has been increased in recent years, as required to eliminate CSO's by 2050, which will create upward pressure on the debt costs over the next several years. Debt charges associated with the sewers capital program are expected to increase by \$1.49 million (5.7%) in 2013.

Operating and maintenance costs are increasing approximately 3% in 2013, mainly due to increases in equipment costs and other inflationary adjustments. There is also a transfer of \$200,000 to the Utility budget from the Public Works budget to reflect work that is part of storm system maintenance including maintaining flood gates and elements of leaf clearing related to storm sewers. This brings the total increase of operating costs to the Sewer Utility to 5.4%.

### Revenues

As previously stated, the Sanitary Sewer System is funded by Sewer User Fees and the Storm Sewer System is funded by General Property Taxes. A technical assessment of the system has been developed to determine the most appropriate distribution between the storm and sanitary system costs and is reviewed annually. The current distribution based on the most recent analysis of the various system component costs is 62.8% sanitary and 37.2% storm (this

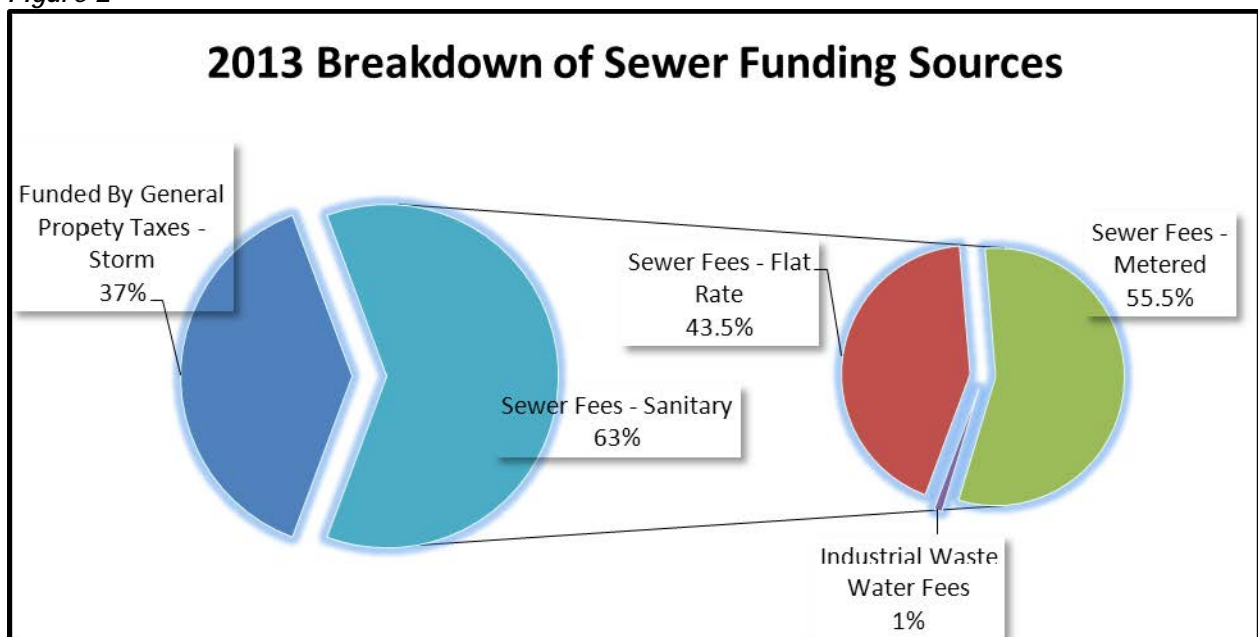
does not include costs for the administration of billing, which are charged directly to the sanitary portion of the utility).

Staff are recommending a 5% increase in the sewer rates for 2013. However, the overall projected increase in total revenues is 2.6%. This relates to the use of water metering as a proxy for water flowing to the sewer system and the forecasted metered revenues are dropping with the lower water consumption. As shown in table 2, the 2012 revenues will be lower than budgeted due to lower water consumption during wet and cold weather in the spring and early summer.

As in 2012, staff are recommending a transfer to the Sewer Rates Stabilization Reserve (discussed in detail below).

Figure 2 shows the breakdown of funding sources between the storm system funded by taxes, and the sanitary system funded by fees. A further breakdown shows the proportion and types of fees that fund the sanitary sewer system.

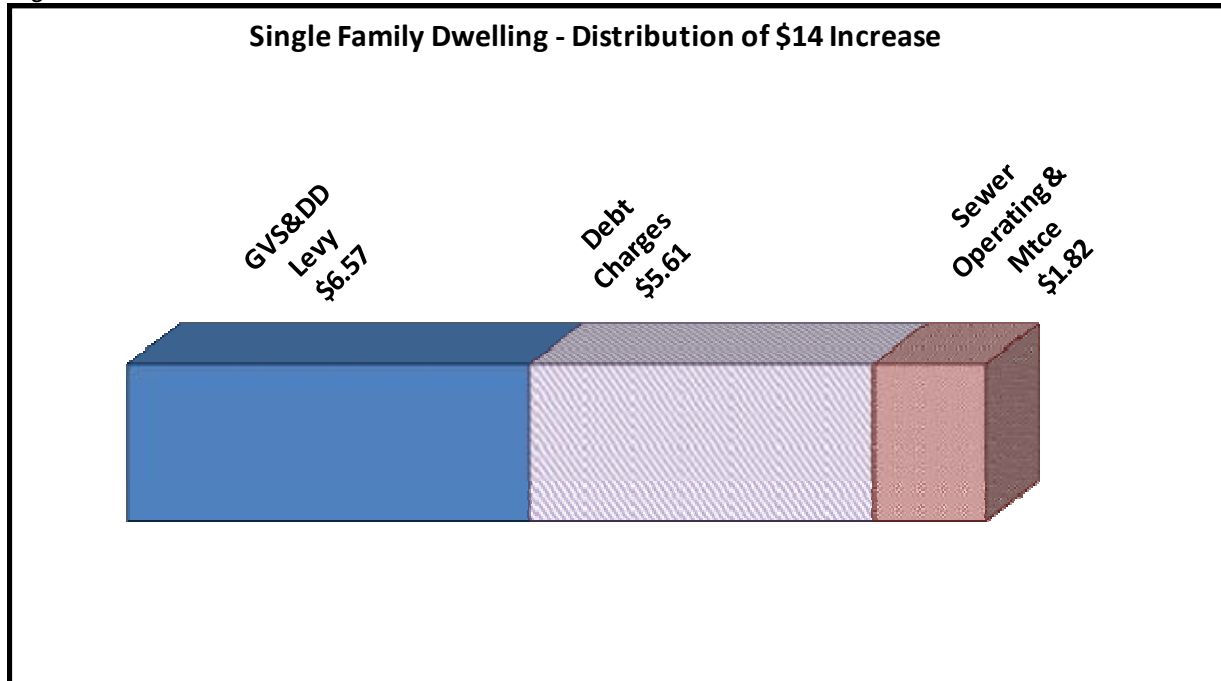
Figure 2



### Distribution of Fee Increase

As shown in Table 2, the proposed increase for a single family dwelling is \$14. The breakdown of that increase is illustrated in Figure 3.

Figure 3



### Sewer Rate Stabilization Reserve

The Sewer Utility maintains a rate stabilization reserve, which has historically been used primarily to mitigate the impact of annual fluctuations in revenues and expenditures. For this purpose, past practice has been to set a similar target balance for both the water and sewer reserves (since sewer metered revenues are based on water consumption). This currently equates to about \$5 million.

As discussed earlier, approximately 58% of the preliminary 2013 Sewer Utility expenditures are for the Metro (GVS&DD) Sewer Levy. This levy funds Metro Vancouver's bulk sewage collection and treatment costs. In Vancouver's case, Metro provides our sewage treatment at the Iona Wastewater Treatment Plant, which is a primary treatment facility.

In accordance with the Integrated Liquid Waste Resource Management Plan, Metro has committed to upgrading the North Shore and Iona primary sewage treatment plants to secondary treatment by 2020 and no later than 2030, respectively. These upgrades are expected to cost in the order of \$1.5 billion, and will have a major impact on Metro's sewer levies to their member municipalities. A Regional Administrators' Advisory Committee (RAAC) subcommittee is currently reviewing the cost sharing formula that determines how Metro sewer costs are distributed.



As in 2012, staff recommend building the reserve over the next several years to help mitigate anticipated rate increases from Metro Vancouver.

### Relationship to Water Reserve

Like the Sewer Utility, the Water Utility also has a rate stabilizing reserve. The relationship between the two utilities is inverted. During wet years, the water utility tends to have a favourable variance and sewer has an unfavourable variance. In dry years when water consumption is higher, the reverse is true. In order to balance the relationship and minimize fee impacts, staff recommend that the weather-related water consumption impact on the two utilities be reviewed annually and a year-end balancing transfer between the two utilities' stabilizing reserves be effected as part of the rate reviews at year end. The transfer will be based on balancing the variation between the two utilities. It is anticipated that the long term effect will be neutral between the two reserves. The transfer will only be used to balance weather related variations as opposed to rate buffering between utilities.

At the end of 2011, this resulted in a transfer of \$1.5 million from the Water Reserve to the Sewer Reserve. The forecasted transfer in 2012 is \$500,000 from the Water Reserve to the Sewer Reserve.

### Reserve Forecast

Table 3 summarizes the forecasted balances in the Sewer Rate Stabilization Reserve over the next five years. These forecasts include inflationary adjustments of 2%, GVS&DD region wide forecasted increases of 5% per year and assume a 5% annual increase in City rates. The other factor included in this forecast is the rising cost of debt associated with the capital program. With these assumptions, it is evident that the reserve is not adequately growing to smooth the upcoming Metro rate increases. Staff will continue to explore opportunities to build sewer reserves, and report back in future rate reports.

*Table 3*

#### **Sewer Rate Stabilization Reserve Forecast**

	2012	2013	2014	2015	2016
Opening Balance (\$ millions)	4.42	5.99	6.93	7.81	7.65
Transfer (to) / from Reserve from Sewer Revenues (\$ millions)	(1.07)	(0.94)	(0.88)	0.16	(0.25)
Fluctuations (Transfer (to)/from Water) (\$ millions)	(0.50)	<i>Weather Related Transfers Only (TBD)</i>			
Ending Balance (\$ millions)	5.99	6.93	7.81	7.65	7.90

### Connection and Other Fees

In addition to the annual charges for sewer services in general, the Sewer & Watercourse By-law includes flat fees and charges for a variety of services and discharges/disposals. It is recommended that the following fee adjustments be approved:

- 3% increase for flat rate connection fees. These are new connections that are paid for in advance by the builder. This increase is required to cover inflationary increases in equipment rental and materials. This figure is required to maintain full cost recovery for these services.
- To be consistent with other flow related rate increases, a 5% increase in rates for specific types of discharges/disposals is proposed. These include discharge of contaminated groundwater, ship wastewater and discharges by Utilities (per manhole connected).

The proposed fees are included in Appendix A.

### *Environmental*

The primary functions of the sewer and drainage systems are to protect public health, property, and the environment. The sewer utility's program to eliminate combined sewer overflows is delivering significant water quality improvements in the receiving waters surrounding Vancouver.

### *Legal*

The Sewer and Watercourse By-law annual rate and fee changes are contained in Appendix A.

In addition to the routine changes to the By-law, some housekeeping amendments are required this year.

Prior to 2011, the City collected BOD/TSS/Flow costs from permitted customers on behalf of Metro Vancouver and remitted those payments to Metro Vancouver along with the annual sewer levy. In 2011, Metro Vancouver changed their Sewer Use By-law #299, so that these Permittees would remit BOD/TSS/Flow charges directly to Metro Vancouver. The City of Vancouver is still responsible for collecting the data used to calculate the charges and provides that data to Metro Vancouver. The Sewer and Watercourse By-law requires some changes to reflect the change in process.

The method of estimating the fees payable for metered customers is also being revised to better detail how to estimate the amount of water likely delivered in the event of a malfunction, tampering, or if the meter is not accessible.

All the proposed amendments to the Sewer and Watercourse By-law are set out in Appendix "B".

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*CONCLUSION*

Rates for sewer services are adjusted annually to offset cost increases in the sewer utility, including operating and debt costs and the Metro (GVS&DD) levy. Based on a review of the proposed sewer costs for 2013, it is recommended that flat and metered sewer fees be increased by 5% and service and connection fees be increased by 3%, as described in this report.

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<b>Schedule A</b>		
<b>Part I: Sewer Connection Flat Rates</b>		
	<b>2012</b>	<b>Proposed 2013</b>
1. Public Sewer Connection, for One-Family or Two-Family Dwellings	\$8,116	\$8,359
2. Public Sewer Connection, other than One-Family or Two-Family Dwellings		
a) 4 inch/100 mm diameter	\$11,288	\$11,627
b) 6 inch/150 mm diameter	\$13,625	\$14,034
c) 8 inch/200 mm diameter	\$15,413	\$15,875
d) 10 inch/250 mm diameter	\$17,781	\$18,314
e) 12 inch/300 mm diameter	\$20,205	\$20,811
f) 15 inch/375 mm diameter	\$22,594	\$23,272
g) Greater than 15 inch/375 mm diameter pursuant to Sentence 2.7 of Sewer and Watercourse By-law	\$22,594	\$23,272
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)	\$4,212	\$4,338
5. New fitting on a single sewer pursuant to Sentence 2.7 (4)	\$1,856	\$1,912
6. Inspection of a plumbing system, subsoil drainage pipes and a building sewer	\$265	\$273
<b>Part III: Flat Rates for Unmetered Property</b>		
	<b>2012</b>	<b>Proposed 2013</b>
Single Family Dwelling	\$273	\$287
Single Family Dwelling with Suite	\$368	\$387
Single Family Dwelling with Laneway House	\$368	\$387
Single Family Dwelling with Suite and Laneway House	\$464	\$487
Strata Duplex (per dwelling unit)	\$185	\$194
2 Services, 1 Lot	\$545	\$572
3 Services, 1 Lot	\$817	\$858
4 Services, 1 Lot	\$1,090	\$1,145
Parking Lot/Garden	\$155	\$163
<b>Part IV: Flat Rates for Other Property or Shut Off Water Service</b>		
	<b>2012</b>	<b>Proposed 2013</b>
Other Property	\$155	\$163
Turned Off, 1 Service	\$155	\$163
Turned Off, 2 Services	\$155	\$163
Turned Off, 3 Services	\$155	\$163
<b>Part V: Unit-Based Rates for Metered Property</b>		
	<b>2012</b>	<b>Proposed 2013</b>
Metered Property Rate	\$1.754	\$1.842
Waste Discharge Permit User Rate	\$0.5715	\$0.6001
<b>Part VI: FLAT RATE FOR SPECIFIC TYPES OF DISCHARGES/DISPOSALS</b>		
	<b>2012</b>	<b>Proposed 2013</b>
For the discharge of contaminated groundwater pursuant to Section 7.11 (per cubic metre)	\$0.80	\$0.84
For the disposal of ship wastewater pursuant to Section 7.12 (per cubic metre)	\$0.80	\$0.84
For discharges by Utilities pursuant to Section 7.13 (per manhole connected)	\$210	\$221

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**BY-LAW NO. \_\_\_\_\_****A By-law to amend  
Sewer and Watercourse By-law No. 8093  
to increase fees and alter billing practices.**

THE COUNCIL OF THE CITY OF VANCOUVER, in public meeting, enacts as follows:

1. This By-law amends the indicated provisions of the Sewer and Watercourse By-law No. 8093.

2. Council hereby amends section 1.2, by inserting each of the following definitions in the correct alphabetical order:

"Average TSS Load" is to be calculated in cubic metres per operating day over a period of a quarter;

"Average BOD Load" is to be calculated in cubic metres per operating day over a period of a quarter;

"Biochemical Oxygen Demand" or "BOD" means the quantity of molecular oxygen, expressed in milligrams per litre, used in the biochemical degradation of organic matter and to oxidize inorganic material during a 5-day incubation period at 20 degrees Centigrade, as determined by the appropriate procedure in Standard Methods;

"BOD Load" means the number of kilograms of BOD in industrial wastewater, after multiplying the number of litres of industrial wastewater discharged by the number of kilograms per litre indicated by the BOD;

"Flow" means the volume of industrial wastewater discharged, inclusive of all BOD Load and TSS Load, as determined by the City Engineer in accordance with the Standard Methods, the waste discharge permit, and the GVS&DD By-law;

"GVS&DD" means the Greater Vancouver Sewerage and Drainage District;

"GVS&DD sewage facility" means works owned by the GVS&DD or otherwise under the control or jurisdiction of the GVS&DD, that gathers, treats, transports, stores, utilizes or discharges wastewater;

"GVS&DD By-law" means the Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007, as amended from time to time;

"operating day" means any day during which the waste discharge permit user has discharged any industrial wastewater into the public sewer system, except where the Inspector or City Engineer determines that a waste discharge permit user has discharged any industrial wastewater into the public sewer system for the dominant purpose of reducing that waste discharge permit user's "Average BOD Load", or "Average TSS Load";

"TSS" means the concentration of suspended solids contained in wastewater, as measured under standard laboratory procedures, expressed in kilograms per litre, as determined by the City Engineer in accordance with the Standard Methods, the waste discharge permit, and the GVS&DD By-law;

"TSS Load" means the number of kilograms of TSS in industrial wastewater after multiplying the number of litres of industrial wastewater discharged by the number of kilograms per litre indicated by the TSS;

"Standard Methods" means in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater", jointly prepared and published from time to time by the American Public Health Association, American Water Works Association and the Water Environment Federation or any successors thereto;

"waste discharge permit user" means an owner or occupier of property, which, because of the type or volume of industrial wastewater which is discharged from the property, requires a waste discharge permit, under the GVS&DD By-law;

"waste discharge permit" means a waste discharge permit issued or required to be issued by the GVS&DD, in order to permit a person to discharge certain types and volumes of industrial wastewater in compliance with the GVS&DD By-law;"

3. Council strikes out section 7.3(2)(a) (iii), (iv) and (v) and inserts:

- "(iii) Where, due to the location of a water meter, a meter reading cannot be obtained or cannot be safely obtained by the Inspector, then the Inspector will mail or deliver a notice to the property, allowing the owner and occupier to remedy the situation within 96 hours of receiving such notice, failing which the Collector or City Engineer may estimate the amount of water which was likely delivered to the property over the relevant period of time and issue a bill based on such estimated consumption.
- (iv) If an Inspector determines that the water meter for a property has malfunctioned, the Collector or City Engineer must estimate the actual water consumption by calculating the previous average water consumption, based on the current years consumption and up to two previous years consumption and must issue an invoice based on that calculation, which invoice must be for no more than twelve months' average water consumption.
- (v) If an Inspector determines that the water meter for a property is inaccurate due to the removal of a meter or tampering with a meter, the Collector or City Engineer must estimate the actual water consumption by calculating the previous average water consumption, based on the current years consumption and up to two previous years consumption and must issue an invoice based on that calculation, which invoice must be for the entire period during which the meter was removed or tampered with, as determined by the Inspector.
- (vi) An Inspector may read a water meter at any reasonable time and may, subject to subsections (iii), (iv) and (v) above, certify such readings to the Collector or City Engineer,

who may then calculate the amount of water delivered during each interval between such readings.”

4. Council hereby strikes section 7.10, and replaces it as follows:

**“7.10 WASTE DISCHARGE PERMIT USERS**

**(1) Waste Discharge Permit Fees**

Any and all fees paid to Metro Vancouver pursuant to the GVS & DD By-law by each property having a waste discharge permit user, are in addition to the rates payable pursuant to Section 7.3 and Part V of Schedule A of this By-law.

**(2) Monitoring & Enforcement**

The City may monitor and inspect waste discharge permit user facilities on behalf of the GVS & DD.

**(3) Calculation of fees**

- (a) Calculation of Discharge Weights/Volumes - The discharge weight and volume components of the rates payable pursuant to the GVS&DD By-law will be measured or estimated by the City Engineer as follows:
- (i) The rates payable pursuant to the GVS&DD By-law will be based on the weights and volumes of BOD Load, TSS Load and Flow discharged pursuant to the waste discharge permit for the property,
  - (ii) Discharge volumes will be measured or estimated by the City Engineer based on the waste discharge permit users and Inspectors periodic inspections, readings and data measurements in such manner as the City Engineer determines is appropriate and in accordance with the waste discharge permit,
  - (iii) Where, due to a breach of the waste discharge permit by the waste discharge permit user,
    - (1) a reading, inspection or other measurement cannot be conducted or obtained by the Inspector.
    - (2) a reading, inspection, or other measurement cannot be accurately or safely conducted or obtained by the Inspector.
    - (3) a reading, measurement, laboratory results or other information required to be supplied by the waste discharge permit user has not been supplied; or
    - (4) an effluent meter or other component of the plumbing system has, without the City Engineers or Inspectors

written authorization, been disconnected or tampered with, or is malfunctioning.

then the Inspector will mail or deliver a notice to the property, setting out the nature of the breach or event, so that the owner and occupier have notice of same, but in any event, the City Engineer may measure or estimate the BOD Load, TSS Load and Flow which were likely discharged into the public sewer system by the waste discharge permit user over the relevant period of time, and instruct the Collector to issue a bill based on such estimates.

- (iv) The City Engineer may apply the procedures and policies utilized by the GVS&DD pursuant to the GVS&DD By-law in measuring or estimating the BOD Load, TSS Load and Flow, provided always that the City Engineer is not bound to do so, and
- (v) The City Engineer will use the information supplied by the waste discharge permit user pursuant to the waste discharge permit provided the information is consistent with the City Engineer's and Inspector's readings, inspections and measurements and will, subject to Sentences (i) to (iv) above, utilize such information to measure or estimate the BOD Load, TSS Load and Flow discharged over each relevant measurement period.

**(4) Other Sewer Discharge Obligations**

Nothing in Section 7 of this By-law, including without limitation, the liability to pay and the payment and acceptance of rates in respect of discharges of wastewater which were discharged in violation of this By-law, the Waste Management Act or the GVS&DD By-law will absolve a person from that person's duties and liabilities under this By-law, the Waste Management Act or the GVS&DD By-law."

5. Council hereby repeals Section 10, and renumbers sections 11 and 12 as sections 10 and 11, accordingly.

6. Council repeals Parts I, III, IV, V, and VI of Schedule A to the Sewer and Watercourse By-law, and substitutes:

**"PART I**

**SEWER CONNECTION RATES**

Every applicant for a public sewer connection must, at the time of application, pay to the City the following rates:

1.	Public sewer connection, for One-Family or Two-Family Dwellings with or without a Laneway House	\$ 8,359.00
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2.	Public sewer connection, other than One-Family or Two-Family Dwellings with or without a Laneway House:		
	a)	4 inch/100 mm diameter	\$ 11,627.00
	b)	6 inch/150 mm diameter	\$ 14,034.00
	c)	8 inch/200 mm diameter	\$ 15,875.00
	d)	10 inch/250 mm diameter	\$18,314.00
	e)	12 inch/300 mm diameter	\$20,811.00
	f)	15 inch/375 mm diameter	\$23,272.00
	g)	greater than 15 inch/375 mm diameter pursuant to Sentence 2.7(2)	\$23,272.00
	h)	manhole installation in conjunction with a public sewer connection, pursuant to Sentence 2.7(3)	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)	\$ 4,338.00
5.		New fitting on a single sewer pursuant to Sentence 2.7(4)	\$ 1,912.00
6.		Inspection of a plumbing system, subsoil drainage pipes, and a building sewer	\$ 273.00

**PART III**

**FLAT RATES  
FOR UNMETERED PROPERTY**

Single Family Dwelling	\$287.00
Single Family Dwelling with Suite	\$387.00
Single Family Dwelling with Laneway House	\$387.00
Single Family Dwelling with Suite and Laneway House	\$487.00
Strata Duplex (per dwelling unit)	\$194.00
2 Services, 1 Lot	\$572.00

3 Services, 1 Lot	\$858.00
4 Services, 1 Lot	\$1,145.00
Parking Lot/Garden	\$163.00

**PART IV****FLAT RATES FOR OTHER PROPERTY  
OR SHUT OFF WATER SERVICE**

Other Property	\$163.00
Turned Off, 1 Service	\$163.00
Turned Off, 2 Services	\$163.00
Turned Off, 3 Services	\$163.00

**PART V****UNIT-BASED RATES FOR METERED PROPERTY**

Metered Property Rate	\$1.842
Waste Discharge Permit User Rate	\$0.6001

**PART VI****FLAT RATE FOR SPECIFIC TYPES  
OF DISCHARGES/DISPOSALS**

For the discharge of contaminated groundwater, pursuant to Section 7.11 (per cubic metre)	\$0.84
For the disposal of ship wastewater, pursuant to Section 7.12 (per cubic metre)	\$0.84
For discharges by Utilities, pursuant to Section 7.13 (per manhole connected)	\$221

7. Council hereby repeals Schedule "B".

8. A decision by a court that any part of this By-law is illegal, void, or unenforceable severs that part from this By-law, and is not to affect the balance of this By-law.

9. This By-law is to come into force and take effect upon adoption.

ENACTED by Council this                      day of                      , 2012

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
City Clerk