metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

METRO VANCOUVER REGIONAL DISTRICT
LIQUID WASTE COMMITTEE

REGULAR MEETING

May 13, 2021
1:00 p.m.
28th Floor Boardroom, 4730 Kingsway, Burnaby, British Columbia

REVISED AGENDA[1]

1. ADOPTION OF THE AGENDA

1.1 May 13, 2021 Regular Meeting Agenda
That the Liquid Waste Committee adopt the agenda for its regular meeting scheduled for May 13, 2021 as circulated.

2. ADOPTION OF THE MINUTES

2.1 April 15, 2021 Regular Meeting Minutes
That the Liquid Waste Committee adopt the minutes of its regular meeting held April 15, 2021 as circulated.

3. DELEGATIONS

4. INVITED PRESENTATIONS

5. REPORTS FROM COMMITTEE OR STAFF

5.1 Environmental Management System for the Liquid Waste Utility
That the Liquid Waste Committee receive for information the report dated April 30, 2021 titled "Environmental Management System for the Liquid Waste Utility".

5.2 Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw No. 345, 2021; Sani-dump Bylaw No. 346, 2021; Sewer Use Amending Bylaw No. 347, 2021
That the GVS&DD Board:
a) give first, second and third reading to *Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw No. 345, 2021*; and
b) pass and finally adopt *Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw No. 345, 2021*.

[1] *Note: Recommendation is shown under each item, where applicable.*

That the GVS&DD Board:

a) give first, second and third reading to *Greater Vancouver Sewerage and Drainage District Sani-dump Bylaw No. 346, 2021*; and
b) pass and finally adopt *Greater Vancouver Sewerage and Drainage District Sani-dump Bylaw No. 346, 2021.*

That the GVS&DD Board:

a) give first, second and third reading to *Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 347, 2021*; and
b) pass and finally adopt *Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 347, 2021*.

5.3 Testing for COVID - 19 Virus in Wastewater

That the Liquid Waste Committee receive for information the report dated May 5, 2021, titled "Testing for COVID-19 Virus in Wastewater".

Added

5.4 Award of Contract Resulting from Request for Proposal No. 20-349: New Westminster Interceptor – Columbia Section Rehabilitation by Sliplining

That the GVS&DD Board:

a) approve the award of a contract for an amount of up to $26,219,750 (exclusive of taxes) to Oscar Renda Contracting of Canada resulting from Request for Proposal No. 20-349: New Westminster Interceptor – Columbia Section Rehabilitation by Sliplining, subject to final review by the Commissioner; and
b) authorize the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied that the award should proceed.

5.5 Manager's Report

That the Liquid Waste Committee received for information the report dated April 26, 2021 titled "Manager's Report".

6. INFORMATION ITEMS

6.1 Contract Amendment to AECOM Canada Ltd. for Owner's Engineer Advisory Services for North Shore Wastewater Treatment Plant

7. OTHER BUSINESS

8. BUSINESS ARISING FROM DELEGATIONS

9. RESOLUTION TO CLOSE MEETING

Note: The Committee must state by resolution the basis under section 90 of the Community Charter on which the meeting is being closed. If a member wishes to add an item, the basis must be included below.

10. ADJOURNMENT/CONCLUSION

That the Liquid Waste Committee adjourn/conclude its regular meeting of May 13, 2021.

Membership:

Stewart, Richard (C) - Coquitlam
Dominato, Lisa (VC) - Vancouver
Calendino, Pietro - Burnaby
Elford, Doug - City of Surrey
Ferguson, Steve - Langley Township
Little, Mike - North Vancouver District
Loo, Alexa - Richmond
McDonald, Bruce - Delta
McEwen, John - Anmore
Trentadue, Mary - New Westminster
Walker, Darryl - White Rock

METRO VANCOUVER REGIONAL DISTRICT
LIQUID WASTE COMMITTEE

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Liquid Waste Committee held at 1:01 p.m. on Thursday, April 15, 2021 in the 28th Floor Boardroom, 4730 Kingsway, Burnaby, British Columbia.

MEMBERS PRESENT:
Chair, Mayor Richard Stewart*, Coquitlam (departed at 1:43 p.m.)
Vice Chair, Councillor Lisa Dominato*, Vancouver
Councillor Pietro Calendino*, Burnaby
Councillor Doug Elford*, Surrey
Councillor Steve Ferguson*, Langley Township
Mayor Mike Little*, North Vancouver District
Councillor Alexa Loo*, Richmond
Councillor Bruce McDonald*, Delta
Mayor John McEwen*, Anmore
Councillor Mary Trentadue*, New Westminster
Mayor Darryl Walker*, White Rock

MEMBERS ABSENT:
None.

STAFF PRESENT:
Peter Navratil, General Manager, Liquid Waste Services
Eva Haan, Legislative Services Coordinator, Board and Information Services

1. ADOPTION OF THE AGENDA

1.1 April 15, 2021 Regular Meeting Agenda

It was MOVED and SECONDED
That the Liquid Waste Committee adopt the agenda for its regular meeting scheduled for April 15, 2021 as circulated.

CARRIED

*denotes electronic meeting participation as authorized by Section 3.6.2 of the *Procedure Bylaw*

2. ADOPTION OF THE MINUTES

2.1 March 11, 2021 Regular Meeting Minutes

It was MOVED and SECONDED
That the Liquid Waste Committee adopt the minutes of its regular meeting held on March 11, 2021 as circulated.

CARRIED

3. DELEGATIONS

No items presented.

4. INVITED PRESENTATIONS

No items presented.

5. REPORTS FROM COMMITTEE OR STAFF

5.1 Annacis Island Wastewater Treatment Plant New Outfall (Video)

Members were provided with a Metro Vancouver video on the construction of the new outfall shaft and tunnel boring machine at the Annacis Island Wastewater Treatment Plant. This video is not retained with the agenda.

5.2 Liquid Waste Services Capital Program Expenditures Update as at December 31, 2020

Report dated March 24, 2021, from Colin Meldrum, Director, Engineering, Design and Construction, Liquid Waste Services, reporting on the status of the Liquid Waste Services capital program, and financial performance for the 2020 fiscal year ending December 31, 2020.

Members were provided with a presentation on the Liquid Waste Services Capital Program Expenditures highlighting progress on the Crescent Beach Forcemain replacement, Annacis Island Wastewater Treatment Plant trickling filter rehabilitation, Hastings Sanitary Trunk Sewer and Gilbert Trunk Sewer projects, and North Surrey Interceptor flow management.

In response to questions, members were informed about the boring machine technology, on-site power sources, the surveying methods used for locating pipes, and the staff efforts to consider deferring projects where feasible to reduce household impact.

Presentation material titled “Liquid Waste Services Capital Program Expenditure” will be retained with the April 15, 2021 Liquid Waste Committee agenda.

It was MOVED and SECONDED

That the Liquid Waste Committee receive for information the report dated March 24, 2021, titled "Liquid Waste Services Capital Program Expenditure Update as at December 31, 2020".

CARRIED

5.3 2021 Liquid Waste Capital Projects

Report dated March 23, 2021, from Colin Meldrum, Director, Engineering, Design and Construction, Liquid Waste Services, informing the Liquid Waste Committee of the liquid waste capital projects under its purview for 2021, as approved by the Board on October 30, 2020.

It was MOVED and SECONDED

That the GVS&DD Board receive for information the report dated March 23, 2021, titled "2021 Liquid Waste Capital Projects".

CARRIED

5.4 Award of Phase C2, Engineering Construction Services for RFP 14-230 for Installation of Gilbert Trunk Sewer No. 2 South Section

Report dated March 23, 2021, from Roy Moulder, Director, Purchasing and Risk Management, Financial Services, and Colin Meldrum, Director, Engineering, Design and Construction, Liquid Waste Services, requesting approval from the GVS&DD Board to award Phase C2, Engineering Construction Services, in an amount of up to $2,548,446 (exclusive of taxes), to the Phase A and B consultant, AECOM Canada Ltd, for the Installation of Gilbert Trunk Sewer No. 2 South Section.

It was MOVED and SECONDED

That the GVS&DD Board:

a) approve the award of Phase C2, Engineering Construction Services, for an amount up to $2,548,446 (exclusive of taxes) to the Phase A and B consultant, AECOM Canada Ltd, for the Installation of Gilbert Trunk Sewer No. 2 South Section; and
b) authorize the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied that the award should proceed.

CARRIED

5.5 Manager's Report

Report dated March 25, 2021, from Peter Navratil, General Manager, Liquid Waste Services, providing an update on 2021 Regional Unflushables Campaign, Water and Wastewater Operators Training Program at BCIT, and the Liquid Waste Committee 2021 Work Plan.

It was MOVED and SECONDED

That the Liquid Waste Committee receive for information the report dated March 25, 2021 titled "Manager's Report".

CARRIED

1:43 p.m. Chair Stewart departed the meeting and Vice Chair Dominato assumed the Chair.

6. INFORMATION ITEMS

6.1 Environmental Management Act Fee Proposed Increases for 2021 – Correspondence from the Ministry of Environment and Climate Change Strategy

6.2 Strategy for Review and Update of the Integrated Liquid Waste and Resource Management Plan – Correspondence from the Ministry of Environment and Climate Change Strategy

7. OTHER BUSINESS

No items presented.

8. BUSINESS ARISING FROM DELEGATIONS

No items presented.

9. RESOLUTION TO CLOSE MEETING

It was MOVED and SECONDED

That the Liquid Waste Committee close its regular meeting scheduled for March 11, 2021 pursuant to the *Community Charter* provisions, Section 90 (1) (k) as follows:

"90 (1) A part of the meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:

(k) negotiations and related discussions respecting the proposed provision of a regional district service that are at their preliminary stages and that, in the view of the board or committee, could reasonably be expected to harm the interests of the regional district if they were held in public."

CARRIED

10. ADJOURNMENT/CONCLUSION

It was MOVED and SECONDED
That the Liquid Waste Committee adjourn its regular meeting of April 15, 2021.

CARRIED
(Time: 1:46 p.m.)

_____ _____

Eva Haan, Richard Stewart, Chair
Legislative Services Coordinator

44946948 FINAL

To: Liquid Waste Committee

From: Andjela Knezevic-Stevanovic, Director, Environmental Management and Quality Control, Liquid Waste Services

Date: April 30, 2021 Meeting Date: May 13, 2021

Subject: **Environmental Management System for the Liquid Waste Utility**

RECOMMENDATION

That the Liquid Waste Committee receive for information the report dated April 30, 2021 titled "Environmental Management System for the Liquid Waste Utility".

EXECUTIVE SUMMARY

The Liquid Waste Services (LWS) Department has adopted the ISO 14001 Environmental Management System (EMS) approach to proactively, systematically, and consistently identify, evaluate and prioritize environmental risks for mitigating action. The analysis indicates that most risks related to core Liquid Waste utility business have rigorous management systems in place to keep these risks to a minimum.

Core risks that require strengthened mitigation include combined sewer overflows, management of compounds of emerging environmental concern, and wastewater treatment air contaminants/greenhouse gas emissions. There are areas that require development of new environmental programs. These include management of solid/hazardous waste at liquid waste facilities, handling of fuel and de-icing salt, management of invasive species, and air contaminants/greenhouse gas emissions from vehicles and cooling equipment.

A future Environmental Management Policy will commit LWS (and Water Services) to the ISO 14001 EMS approach and drive decision-making to mitigate risks and continuously improve utility environmental performance.

PURPOSE

To provide the Liquid Waste Committee with information regarding development of the Environmental Management System for the Liquid Waste utility and with an overview of Liquid Waste Services environmental risk areas and mitigating actions.

BACKGROUND

Metro Vancouver is committed to the protection of public health and the environment through its numerous policies and long range plans. The Water and Liquid Waste utilities are fulfilling this commitment following the ISO 14001 Environmental Management Systems. Through the implementation of an internationally recognized EMS, we establish robust policies/protocols/procedures, staff training, regular check-ups and corrective habits to achieve regulatory compliance in all areas of liquid waste management. This report summarizes an approach to identification and analysis of LWS environmental risks, their potential environmental impacts, and

mitigation actions necessary to achieve regulatory compliance and improve environmental performance of the Liquid Waste utility.

LIQUID WASTE SERVICES ENVIRONMENTAL RISKS

Risk Analysis and Prioritization

A review of LWS activities identified fifty environmental risks (Attachment 1) for the Liquid Waste utility. The risks are summarized into core and operational risk categories with the majority having regulatory compliance obligations. Core risks are traditionally associated with wastewater treatment and discharges to water, land and air. The environmental impact of these risks are understood through historical monitoring and modelling. In addition to core risks, there are environmental risks that are traditionally related to operational activities, such as fuel spills, spread of invasive species or waste management activities. Potential impacts from environmental risks range from contamination of water, soil and air, to far-reaching cumulative effects such a climate change, loss of biodiversity and bio-accumulation of toxins in the environment with potential impacts to public health and terrestrial and aquatic life.

All fifty risks were evaluated systematically for environmental significance considering environmental impact, regulatory compliance, and public concern. The environmental impact was based on a score calculation of potency, term, scale and frequency. Attachment 2 shows the evaluation methodology. The methodology is repeatable and transparent, and provides a mechanism to periodically re-assess risks when changes in work activities, regulations or scientific understanding of environmental impact occur.

Risk Mitigation Findings

The risk analysis confirmed that most traditional core wastewater risks have rigorous management systems in place to meet current regulatory and due diligence requirements. Examples of these systems include routine monitoring of effluent and biosolids along with their receiving environments, and response and reporting protocols for environmental incidents. Existing LWS resources are allocated to these systems and must be maintained in order to monitor performance and keep these risks to a minimum.

A few core risks require strengthened controls. These include progress towards eliminating combined sewer overflows, management of compounds of emerging environmental concern in effluent and biosolids, and air emissions such as greenhouse gases (GHGs) from wastewater processes. For these risks, incorporating rapidly developing and complex areas of science and changing regulations into plans and initiatives for liquid waste infrastructure design, operations and source control are critical. These core risks will be addressed via capital planning, operational budget decisions, and coordination and collaboration with municipalities.

The risk analysis also revealed that most environmental risks in the operational risk category have been sufficiently mitigated. However, a number of areas require new mitigation tools. These include management of waste, fuel, refrigerants, de-icing salt, invasive species, and emissions from vehicles. Mitigation action for these risks entails developing new or enhanced environmental programs.

A summary of the risk areas and mitigation action priorities is shown in Attachment 3.

Addressing all operational priorities will ensure due diligence and full environmental regulatory compliance of the Liquid Waste utility. This requires investment in staff awareness, capacity and competency, innovation and collaboration in organizational processes, and enduring commitment.

An Environmental Management Policy will be put forward to formalize the commitment to this risk-based, systematic ISO 14001 EMS approach to inform management decisions and future budgets that are needed to mitigate environmental risks to an acceptable level. This policy will be developed in partnership with Water Services using the same methodology.

ALTERNATIVES
This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS
The costs associated with developing the ISO 14001 EMS approach and maintaining existing rigorous systems for management of traditional core environmental risks to meet current regulatory and due diligence requirements, are funded from the annual LWS operating budget.

The costs associated with developing strengthened or new risk mitigation measures will be incorporated into future GVS&DD operating budgets on an incremental basis.

CONCLUSION
Using an ISO 14001 EMS approach to analyze LWS environmental risks, most core wastewater related risks are shown to have rigorous management systems in place and LWS resources dedicated to keeping these risks to a minimum. Core risks requiring strengthened mitigation are combined sewer overflows, management of compounds of emerging environmental concern, and wastewater process air emissions or GHGs. Operational work activity risks such as waste management, fuel and de-icing salt handling, invasive species, and air contaminants/GHG emissions from vehicles and cooling equipment, require new or enhanced environmental programs. An Environmental Management Policy will drive LWS decision-making to support ongoing priority risk mitigation and continuous improvement in environmental performance.

Attachments
1. List of LWS Environmental Risks (2019-2020)
2. Overview of Environmental Risk Significance Evaluation Methodology
3. Summary of LWS Environmental Risk Areas and Mitigating Actions

43375114

List of LWS Environmental Risks (2019-2020)

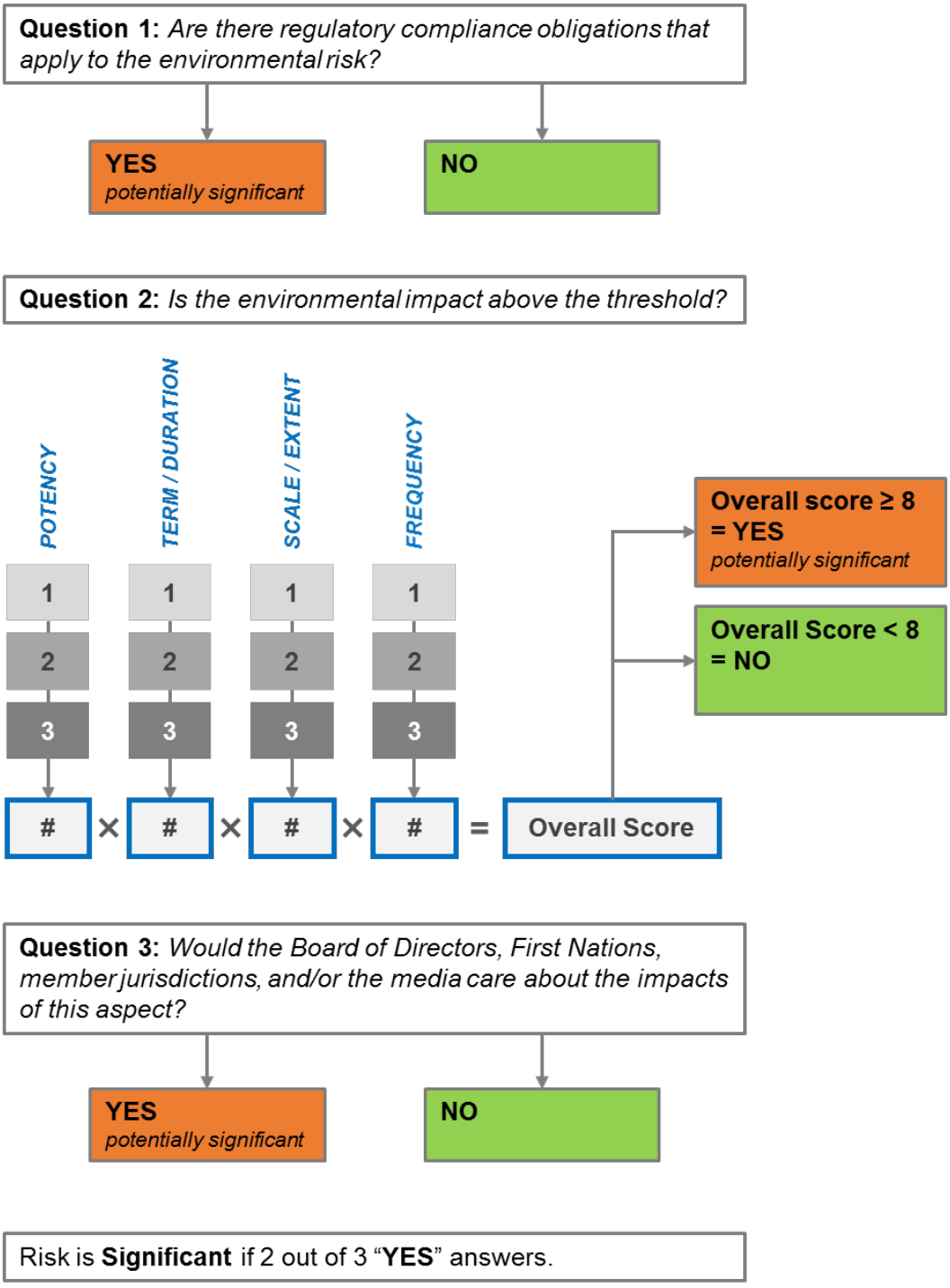
Discharges to Water
Effluent BOD or TSS Exceedances
Effluent Dechlorination Interruptions
Effluent Disinfection Interruptions
Unusual Effluent Quality: Spikes
Drinking Water (Washwater) Discharges
WWT Bypasses
Biosolids Spills to Water
Biosolids Stockpile Runoff & Leachate
Routine Effluent: Regulated Substances
Effluent Toxicity
Wet Weather Sanitary Sewer Overflows (SSOs)
Dry Weather SSOs/CSOs
Combined Sewer Overflows (CSOs)
Routine Effluent: Compounds of Environmental Concern
Trucked Liquid Waste
Trucked Liquid Waste Quality
Stormwater Management
Site Stormwater & Leachate Management
Urban Drainage: Stormwater Quality & Quantity
Flood Management
Urban Drainage: Flood Management

Discharges to Land
WWTP Effluent Spills
Biosolids Quality: Non-Compliant
Biosolids Handling & Application
Biosolids Spills to Land
Biosolids Quality: Compounds of Environmental Concern
Land Contamination
Historical Land & Groundwater Contamination
Habitat Management
Pest Management
Urban Drainage: Maintenance of Creek Beds/Banks
Control of Terrestrial Invasive Species
Other
Electricity Use
Noise Management
Light Management
Drinking Water Use

Discharges to Air
Routine Odours
Non-routine Odours
Dust Management
Equipment Air Contaminants/GHG Emissions
Wastewater Air Contaminants/GHG Emissions
Vehicle Air Contaminants/GHG Emissions
Refrigerant Management
Waste Management
WWTP Grit & Screenings Disposal
Solid Waste Management
Wastes from Maintenance of Infrastructure
Hazardous Waste Management
Materials Management
Small Quantity Chemical Storage & Handling
Compressed Gas Storage & Handling
Equipment Oil Handling
Bulk Chemical Storage & Handling
Small Quantity Fuel Storage & Handling
Material Procurement
De-Icing Salt Storage & Handling
Bulk Diesel Storage & Handling

Overview of Environmental Risk Significance Evaluation Methodology

Risk significance is determined by asking three questions:



Summary of LWS Environmental Risk Areas and Mitigating Actions

Core Risk	Description	Mitigating Action
Management of regulated substances in effluent and biosolids	Management of routine discharges of regulated substances such as nutrients, metals, organic compounds, pesticides and flame retardants in wastewater treatment plant effluent and biosolids.	Continue provision of required monitoring, assessments, process controls and infrastructure.
Management of environmental incidents associated with effluent and biosolids	A variety of regulatory non-compliance incidents potentially resulting from wastewater treatment interruptions or high loads of contaminants illegally discharged into the sewer.	Continue advancement of source control strategies and maintain treatment process infrastructure, monitoring and controls, including resilient back up power.
Sanitary Sewer Overflows (SSOs)	Discharge of untreated and/or diluted wastewater due to power interruption, infrastructure malfunctioning, or from sanitary sewer relief locations due to insufficient sanitary sewer capacity during wet weather.	Continue implementing inflow and infiltration (I&I) reduction strategies and collection system maintenance and upgrades. Maintain rigorous response protocols.
Odours emitted by liquid waste treatment facilities or infrastructure	Includes typical odours emitted from routine operations (e.g. sewers, pump stations, wastewater treatment plants, biosolids) as well as typical odours from occasional incidents (e.g. sewer air flow, malfunctioning equipment or process).	Continue sewer gas (corrosion control) programs, installation of odour control infrastructure and technologies, odour monitoring and public complaint response systems.
Management of compounds of emerging environmental concern in effluent and biosolids	Management of routine discharges of WWTP effluent and biosolids containing substances of emerging environmental concern such as microplastics, pharmaceuticals, personal care products, etc.	**Priority for ongoing consideration, setting objectives and defining strategy to inform capital planning and/or source control options.**
Combined Sewer Overflows (CSOs)	Rainfall dependent discharges of untreated wastewater diluted with stormwater at combined sewer overflow locations.	
Wastewater Air Contaminants/GHGs	GHGs from flared biogas as well as fugitive emissions from sewers and WWTPs.	
Operational Risk	**Description**	**Mitigating Action**
Solid/Hazardous Waste Management	Solid and hazardous waste generation, storage, handling and disposal.	**Priority for development and implementation of a new or enhanced environmental program.**
Fuel Handling	Fuel delivery, storage and handling to prevent releases.	
Equipment Air Contaminants/GHGs	Air contaminants and GHGs from refrigerant gases and vehicle emissions.	
Invasive Species Management	Ineffective control of plant invasive species directly affecting ecosystems and ability to maintain infrastructure.	
De-icing Salt Use	De-icing salt used on road or path surfaces and bulk stored at some facilities having a potential to contaminate soil and water.	

To: Liquid Waste Committee

From: Dana Zheng, Program Manager Source Control, Policy, Planning and Analysis, Liquid Waste Services

Date: April 30, 2021 Meeting Date: May 13, 2021

Subject: **Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw No. 345, 2021; Sani-dump Bylaw No. 346, 2021; Sewer Use Amending Bylaw No. 347, 2021**

RECOMMENDATION

That the GVS&DD Board:

a) give first, second and third reading to *Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw No. 345, 2021*; and
b) pass and finally adopt *Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw No. 345, 2021*.

That the GVS&DD Board:

a) give first, second and third reading to *Greater Vancouver Sewerage and Drainage District Sani-dump Bylaw No. 346, 2021*; and
b) pass and finally adopt *Greater Vancouver Sewerage and Drainage District Sani-dump Bylaw No. 346, 2021.*

That the GVS&DD Board:

a) give first, second and third reading to *Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 347, 2021*; and
b) pass and finally adopt *Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 347, 2021*.

EXECUTIVE SUMMARY

Two new bylaws, *Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw No. 345, 2021* (the "TLW Bylaw") and *Greater Vancouver Sewerage and Drainage District Sani-dump Bylaw No. 346, 2021* (the "Sani-dump Bylaw") are proposed to improve clarity on regulatory requirements applicable to trucked liquid waste (TLW) and sani-dumps. The two new proposed bylaws will complement requirements in the *Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007* (the "Sewer Use Bylaw") which are still applicable to TLW and sani-dump discharges. A proposed *Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 347, 2021* (the "Sewer Use Amending Bylaw") is also proposed as required to improve compliance and alignment between the three bylaws. Engagement was undertaken with industry representatives and local governments in the region from October 2019 to December 2020. Metro Vancouver staff have responded to all comments received and incorporated the feedback.

PURPOSE

To seek GVS&DD Board adoption of the new TLW Bylaw, the Sani-dump Bylaw, and the Sewer Use Amending Bylaw to improve the regulation of these liquid waste discharges to the sewer system and wastewater treatment plants.

BACKGROUND

Metro Vancouver receives domestic and non-domestic TLW at three wastewater treatment plants. Domestic TLW includes waste from septic tanks, portable toilets and holding tanks. Non-domestic TLW includes higher strength liquid waste such as grease trap waste and chemical waste such as de-icing fluid from YVR airport. Approximately 100,000 m^3 per year of domestic TLW and approximately 3,000 m^3 per year of non-domestic TLW are discharged at Metro Vancouver's TLW facilities.

Sani-dumps are typically used by recreational vehicles (RVs) to drain their wastewater holding tanks into the sewer network. In Metro Vancouver, there are 16 sani-dumps located mainly at RV parks, but also at two gas stations and a cardlock.

At its June 28, 2019 meeting, the GVS&DD Board adopted a recommendation to review the TLW provisions of the Sewer Use Bylaw, as presented in the report dated May 28, 2019, titled "Review of Trucked Liquid Waste Provisions of the Sewer Use Bylaw" (Reference 1). Bylaw development took place from December 2019 to March 2021.

TRUCKED LIQUID WASTE BYLAW

The proposed TLW Bylaw contains new definitions of waste types and clearer requirements of generators and haulers of TLW to reduce ambiguity and increase enforceability. A new policy for TLW generated outside of the region is introduced and an updated fee schedule is also included.

Trucked Liquid Waste Discharge Fees

Fee increases are proposed to allow for full cost recovery of operating and capital costs associated with receiving and treating TLW in the region. Since existing discharge fees have not been updated since 2012, Metro Vancouver's domestic TLW fees are about 80% less than fees from neighbouring jurisdictions, which are around \$50/m^3. Currently, the annual cost of managing TLW is approximately \$4.8M compared with an annual program revenue of \$1.2M. In consideration of the significant fee increases required to achieve full cost recovery in conjunction with ongoing economic challenges due to COVID-19, the proposed fee structure includes no increases for 2021 and a gradual increase over four years to achieve full cost recovery by 2025. After 2025, the proposed fees will increase based on British Columbia's annual Consumer Price Index inflation rate which ranges typically from 0% to 3%.

Table 1: Proposed Trucked Liquid Waste Discharge Fees

	No increase	Gradual increase over 4 years			
	2021	2022	2023	2024	2025
Domestic TLW (\$/m^3)	\$8.59	\$17.48	\$26.38	\$35.27	\$44.17
Non-domestic TLW (\$/m^3)	\$61.30	\$65.80	\$70.30	\$74.80	\$79.30
Revenue[a] (\$M)	\$1.2	\$2.0	\$2.9	\$3.9	\$4.8
Program Costs[b] (\$M)	\$4.8	\$4.8	\$4.8	\$4.8	\$4.8

[a] Projected revenue is based on an assumed continued trend in annual volumes of TLW discharged.
[b] 5-Year Average (2021 - 2025 Budget)

Out-of-Region Trucked Liquid Waste

Metro Vancouver's wastewater treatment Plants (WWTP) are designed and funded based on wastewater generated from within the region. In recent years, Metro Vancouver TLW facilities have seen an increase in out-of-region TLW. While current volumes of out-of-region TLW are relatively minor, there is a need to address out-of-region waste and ensure that each region adequately plans and manages their own wastes. The proposed TLW Bylaw will restrict discharges of TLW from outside the region. In the rare event of WWTP operational disruptions in neighbouring jurisdictions and in other unusual circumstances, it is proposed that acceptance of out-of-region TLW may be considered through Board authorization. If authorized by the Board, non-domestic TLW from out-of-region will continue to require a trucked liquid waste authorization from the Sewage Control Manager.

SANI-DUMP BYLAW

There are very few sani-dumps within the region and they are considered essential for residents that rely on them. At its November 29, 2019 meeting, the GVS&DD Board received for information the report dated October 31, 2019, titled "Feasibility of a Regional Recreational Vehicle Sanitary Dump Facility" (Reference 2) that indicated a lack of feasibility for a regional facility with challenges including an absence of functional space at WWTPs and proven low return on investment. Metro Vancouver enforcement staff have reported the discharge of TLW or other non-compliant liquids into the wastewater system via sani-dumps. The proposed Sani-dump Bylaw will allow Metro Vancouver to help sani-dump operators prevent misuse of their facilities, to provide added support for safe operations and prevent costly maintenance needs.

The intent of the proposed Sani-dump Bylaw is to ensure existing owners and operators can readily become compliant and continue to provide this essential service for RV residents, while improving Metro Vancouver's ability to prevent illegal discharges. Operators will be required to register with Metro Vancouver and pay a one-time $100 registration fee; however, if they register within 6 months of bylaw adoption the fee will be waived. Sani-dump facilities will be required to allow only RV waste to be discharged, display signage regarding prohibited wastes, report any illegal dumping, allow officers to inspect, and notify Metro Vancouver if the facility ceases operations.

SEWER USE AMENDING BYLAW

The proposed Sewer Use Amending Bylaw includes definition updates and additions to align with those in the proposed TLW and Sani-dump Bylaws and removes existing overlapping provisions. Administrative changes have been included to improve clarity and enforceability of the Sewer Use Bylaw.

ENGAGEMENT FEEDBACK

Engagement activities took place from October 2019 to December 2020. Staff engaged approximately 200 organizations that could be impacted by changes to Metro Vancouver's TLW requirements, including TLW haulers, non-domestic waste generators, sani-dump operators, neighbouring out-of-region liquid waste jurisdictions and WWTPs, and municipalities. Engagement activities included an in-person feedback session, meetings, interviews, email responses, and online questionnaires.

The following represent feedback highlights from the engagement process:

- TLW haulers indicated that the new proposed TLW fee structure is reasonable.
- Out-of-region jurisdictions agreed with the principle of each jurisdiction managing TLW within their own region. Some out-of-region generators indicated they may not have other public sector options for sludge disposal, however, in January 2021, the Abbotsford Mission Water & Sewer Commission approved a recommendation to accept sludge on a case-by-case basis.
- Sani-dump operators indicated that stringent regulations could result in sani-dump facility closures, however, operators specified that a sani-dump registration system would not create operational challenges.
- TLW haulers and sani-dump operators confirmed definitions of waste types require clarification and that educational materials would help them communicate with customers.

A summary of the engagement process and a comprehensive list of comments provided by industry representatives and Metro Vancouver's responses are provided in Attachments 4 and 5.

MEMBER FEEDBACK

Input from member jurisdictions was gathered and incorporated through engagement with the Regional Engineers Advisory Committee (REAC) Liquid Waste Subcommittee throughout 2018 to 2020. Proposed policy recommendations were presented to REAC at their February 5, 2021 meeting.

ALTERNATIVES

1. That the GVS&DD Board:
   a) Give first, second and third reading to *Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw No. 345, 2021*; and
   b) Pass and finally adopt *Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw No. 345, 2021*.

   That the GVS&DD Board:
   a) Give first, second and third reading to *Greater Vancouver Sewerage and Drainage District Sani-dump Bylaw No. 346, 2021*; and
   b) Pass and finally adopt *Greater Vancouver Sewerage and Drainage District Sani-dump Bylaw No. 346, 2021.*

   That the GVS&DD Board:
   a) Give first, second and third reading to *Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 347, 2021*; and
   b) Pass and finally adopt *Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 347, 2021*.

2. That the GVS&DD Board receive for information the report dated April 30, 2021, titled "Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw No. 345, 2021; Sani-dump Bylaw No. 346, 2021; Sewer Use Amending Bylaw No. 347, 2021" and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

The annual cost of managing TLW is approximately $4.8M compared with an annual program revenue of $1.2M. Adoption of the proposed fee increases within the TLW Bylaw will improve cost recovery over the next five years with the costs of receiving and treating TLW ultimately fully recovered through the discharge fees charged to haulers, rather than being partially funded through the liquid waste levy.

CONCLUSION

The two proposed bylaws, the TLW Bylaw and the Sani-dump Bylaw, will clarify definitions and requirements, improve the regulation of these discharges, and update fees. An accompanying Sewer Use Amending Bylaw will ensure alignment and regulatory linkages between the bylaws. Relevant stakeholders were engaged in the review process and implementation through 2021 will include education and outreach. Staff recommend Alternative 1 which includes adoption of the TLW Bylaw, the Sani-dump Bylaw, and the Sewer Use Amending Bylaw.

Attachments

1. *Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw No. 345, 2021*
2. *Greater Vancouver Sewerage and Drainage District Sani-dump Bylaw No. 346, 2021*
3. *Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 347, 2021*
4. Trucked Liquid Waste Program Final Engagement Summary Report, April 2021
5. Trucked Liquid Waste Program Consideration of Feedback Summary Table, April 2021

References

1. "Review of Trucked Liquid Waste Provisions of the Sewer Use Bylaw", dated, May 28, 2019
2. "Feasibility of a Regional Recreational Vehicle Sanitary Dump Facility", dated, October 31, 2019

44145933

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
BYLAW NO. 345, 2021
A Bylaw to Regulate the Discharge of Trucked Liquid Waste

WHEREAS:

A. The *Environmental Management Act, S.B.C. 2003, c. 53* of British Columbia and the *Greater Vancouver Sewerage and Drainage District Act, S.B.C, 1956, c. 59* authorize the Greater Vancouver Sewerage and Drainage District (the "*District*") Board (the "*Board*") to make bylaws respecting the direct or indirect discharge of *wastes* into any *sewer* or drain connected to a *sewage facility* operated by the *District*;

B. The *Greater Vancouver Sewerage and Drainage District Act* authorizes the *District* to set fees payable by *persons* who discharge liquid *waste* into any work, service or plant of the *District* for conveying, disposing of, or treating liquid *waste*, and into any work, service, or plant connected thereto; and

C. It is deemed desirable to regulate the discharge of *trucked liquid waste* into *sewers* or *sewage facilities*.

NOW THEREFORE the Board of the Greater Vancouver Sewerage and Drainage District enacts as follows:

Citation

1. The official citation of this bylaw is "Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw No. 345, 2021" ("this *Bylaw*").

Schedule

2. The following Schedule is attached to and forms part of this *Bylaw*:
Schedule "A", **TRUCKED LIQUID WASTE DISCHARGE FEES**.

Definitions

3. For ease of reference, words that are italicized in this *Bylaw* are defined terms.

In this *Bylaw*:

"chemical or portable toilet" means a container that collects and contains human excreta and to which chemicals for minimizing odours may be added;

"*designated*" means designated by the *District* or by an authorized employee or representative of the *District*;

"discharge, or allow or cause to be discharged, directly or indirectly" includes but is not limited to, a discharge by a *generator* indirectly discharging *trucked liquid waste* utilizing the services of a *hauler* to discharge the *trucked liquid waste* into the *sewage facility* named in the *generator's trucked liquid waste authorization* for such discharge;

"*discharge fee*" means a fee set out in Schedule A and payable by a *hauler* for the authorized discharge of *trucked liquid waste* into a *sewage facility* in accordance with Part 2;

"*domestic trucked liquid waste*" means any *domestic waste* that is not discharged directly into a *sewer* or *sewage facility* and is transported by a *hauler* to a *sewage facility* for discharge in accordance with Part 2, and includes *domestic waste* from a *holding tank*, *septic tank*, *pit toilet*, *chemical or portable toilet*, or *wastewater* conveyance lines or structures but excludes *recreational vehicle waste* and *sludge*;

"*generator*" means a *person* who produces, creates or owns *waste* that is collected in a *trucked liquid waste hauling truck*;

"*hauler*" means a *person* who transports *waste* from a *generator* to a *sewer* or *sewage facility* for discharge in accordance with Part 2;

"holding tank" means a container that holds *wastewater* until the *wastewater* is removed for treatment or disposal;

"*manifest*" means the documentation and information described in section 26 that a *hauler* must submit to the *District* prior to the discharge of any *trucked liquid waste* into a *sewage facility*;

"*non-domestic trucked liquid waste*" means any liquid *waste*, except *domestic trucked liquid waste*, that is not discharged directly into a *sewer* or *sewage facility* and is transported by a *hauler* to a *sewer* or *sewage facility* for discharge in accordance with Part 2;

"out-of-region discharge number" means the number that, effective June 1, 2022, an *out-of-region generator* must first obtain prior to a discharge of *trucked liquid waste* to a *sewage facility*, as provided in sections 12 and 13;

"*out-of-region generator*" means a *generator* that is located outside the geographic area of the Metro Vancouver Regional District;

"pit toilet" means any container or pit that is for the purpose of collecting human excreta and that may or may not use chemicals to help the *waste* decompose, and includes an outhouse or a privy;

"recreational vehicle waste" means *recreational vehicle waste* as defined in the *Sani-dump Bylaw*;

"*Sani-dump Bylaw*" means *Greater Vancouver Sewerage and Drainage District Sani-dump Bylaw No. 346, 2021*;

"septic tank" means a container for receiving, treating and settling *wastewater*;

"*Sewer Use Bylaw" means *Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007;*

"*sludge*" means any material removed from *wastewater* during primary, secondary, or advanced *wastewater* treatment and that may or may not have undergone a process to reduce pathogens or vector attraction but excludes material removed from *wastewater* at a *District*-owned *sewage facility*;

"*trucked liquid waste*" means *domestic trucked liquid waste* and *non-domestic trucked liquid waste*, but excludes *recreational vehicle waste*;

"*trucked liquid waste authorization*" means a *trucked liquid waste authorization* issued by a *Sewage Control Manager* under Part 3 of this *Bylaw*; and,

"*trucked liquid waste hauling truck*" means any vehicle that collects *trucked liquid waste* for the purposes of transporting and discharging that *trucked liquid waste* to a *sewage facility*.

4. Terms that are italicized but not defined in this *Bylaw* have the same meaning given to those terms in the *Sewer Use Bylaw* or incorporated by reference into the *Sewer Use Bylaw*.

5. References in this *Bylaw* to an enactment, including the *Sewer Use Bylaw*, include the enactment as it may be amended or replaced from time to time.

Part 1 – Application

6. Every *person* who *discharges, or allows or causes to be discharged, directly or indirectly*, *trucked liquid waste* into a *sewer* or *sewage facility* must comply with this *Bylaw* and the *Sewer Use Bylaw*.

Part 2 – Restrictions

7. No *person* shall *discharge*, *or allow or cause to be discharged*, *directly or indirectly*, *trucked liquid waste* into a *sewer* or *sewage facility* except at a *sewage facility* that is *designated* for the purposes of receiving *trucked liquid waste* and in compliance with the requirements of this Part.

8. A *hauler* shall not *discharge, or allow or cause to be discharged, directly or indirectly*, *trucked liquid waste* into a *sewer* or *sewage facility*, unless the *hauler* has been granted credit under Part 6, the credit privileges have not been suspended or cancelled by the *District*, and the *hauler* complies with the requirements of this Part.

9. Subject to section 12, a *hauler* shall not *discharge, or allow or cause to be discharged, directly or indirectly*, *domestic trucked liquid waste* into a *sewage facility* unless:

   (a) the discharge is into a *sewage facility designated* for receiving *domestic trucked liquid waste*; and

   (b) prior to the discharge, the *hauler* submits a *manifest* in compliance with Part 5.

10. Subject to section 12, a *hauler* shall not *discharge, or allow or cause to be discharged, directly or indirectly*, *non-domestic trucked liquid waste* into a *sewage facility* unless:

    (a) the discharge is into a *sewage facility designated* for receiving *non-domestic trucked liquid waste*;

    (b) prior to the discharge, the *hauler* submits a *manifest* in compliance with Part 5; and

    (c) the discharge is:

        i. *non-domestic trucked liquid waste* collected from a *food sector establishment* regulated by the *Grease Interceptor Bylaw*; or

        ii. *non-domestic trucked liquid waste* collected from a *generator*, and the discharge is in accordance with the terms and conditions of a *trucked liquid waste authorization* in respect of the discharge.

11. Sections 7, 8, 9 and 10 do not apply to the *District* or an agent *hauler* of the *District* where waste removed from a *sewer* due to *District* maintenance or operations activities is discharged into a *sewer* at another location.

12. After June 1, 2022, in addition to other applicable requirements of this Part, no *person* shall *discharge, or allow or cause to be discharged, directly or indirectly* into a *sewage facility*, any *trucked liquid waste* originating from or collected from an *out-of-region generator*, unless the *person* has first obtained in respect of the discharge of the *trucked liquid waste*, an *out-of-region discharge* number valid for a stipulated period.

13. No *out-of-region generator* may receive an *out-of-region discharge number* from the *District* unless authorized by the *Board*, and only for the period stipulated by the *Board*.

14. No *person* shall *discharge, or allow or cause to be discharged, directly or indirectly*, into a *sewage facility trucked liquid waste* from a *trucked liquid waste hauling truck* if it contains a mixture of *domestic trucked liquid waste* and *non-domestic trucked liquid waste*.

15. A *hauler* shall not *discharge, or allow or cause to be discharged, directly or indirectly* into a *sewage facility*, any substance, *contaminant* or *trucked liquid waste* other than the substance, *contaminant* or *trucked liquid waste* that is described or referenced in the *manifest* in respect of that discharge.

Part 3 –Trucked Liquid Waste Authorizations

16. Subject to section 22, a *Sewage Control Manager* may issue a *trucked liquid waste authorization* to allow the discharge, directly or indirectly, into a *sewage facility* of *non-domestic trucked liquid waste*, upon such terms and conditions as the *Sewage Control Manager* considers appropriate and, without limiting the generality of the foregoing, may in the *trucked liquid waste authorization*:

(a) place limits and restrictions on the quantity, composition, frequency and nature of the *trucked liquid waste* authorized to be discharged;

(b) require a *generator*, authorized under a *trucked liquid waste authorization* to monitor, in the way specified by the *Sewage Control Manager*, the *trucked liquid waste* being discharged under the *trucked liquid waste authorization* and to keep records and provide information to the *Sewage Control Manager* concerning the discharge and associated *waste* sources, treatment works and measures;

(c) require a *generator*, authorized under a *trucked liquid waste authorization* to identify by name which *hauler* will transport the *trucked liquid waste* to the *sewage facility*;

(d) specify at which *sewage facility* the *trucked liquid waste* must be discharged to comply with the *trucked liquid waste authorization*; and

(e) provide that the *trucked liquid waste authorization* will expire on a specified date, or upon the occurrence of a specified event.

17. A *Sewage Control Manager* may, upon application from the holder of *a trucked liquid waste authorization*, or upon a *Sewage Control Manager's* own initiative, amend the terms and conditions of a *trucked liquid waste authorization*.

18. A *Sewage Control Manager* may, by *order*, require any *person* who discharges *non-domestic trucked liquid waste* directly or indirectly into a *sewer* or *sewage facility* to apply for a *trucked liquid waste authorization*.

19. Application for a *trucked liquid waste authorization* shall be made to a *Sewage Control Manager* on such forms as a *Sewage Control Manager* may prescribe from time to time and shall be accompanied by such information, drawings and specifications as a *Sewage Control Manager* may from time to time prescribe.

20. Without limiting any other provision of this *Bylaw*, a *Sewage Control Manager* may amend, suspend or revoke any *trucked liquid waste authorization* for any purpose stated in section 1 of the *Sewer Use Bylaw*.

21. A *trucked liquid waste authorization* may not be transferred or assigned without a *Sewage Control Manager's* consent in writing.

22. Effective June 1, 2022 a *Sewage Control Manager* may not issue a *trucked liquid waste authorization* in respect of a discharge of *non-domestic trucked liquid waste* originating from an *out-of-region generator* unless the *out-of-region generator* has first obtained an *out-of-region discharge number* in accordance with sections 12 and 13.

23. The *Board* may from time to time establish fees to be charged for the application for and administration of a *trucked liquid waste authorization*.

Part 4 – Discharge Monitoring

24. A *Sewage Control Manager* may require any *generator* who has applied for a *trucked liquid waste authorization* to, at that person's expense, sample and analyze the proposed discharge of *trucked liquid waste* in a manner satisfactory to the *Sewage Control Manager* and to provide the results of such sampling to the *Sewage Control Manager*.

25. A *District* employee or representative may collect a sample of *trucked liquid waste* from any *trucked liquid waste hauling truck* discharging *trucked liquid waste* into a *sewage facility* or accessing a *sewage facility* for that purpose.

Part 5 – Manifest Requirements

26. Every *hauler* who discharges, or allows or causes the discharge of *trucked liquid waste* into a *sewage facility* shall, prior to commencing every such discharge of *trucked liquid waste*, submit a *manifest* to the *District* that:

    a) is in a form approved by the *District*;

    b) is accurately completed;

    c) is signed by the *hauler* or *hauler* driver discharging the *trucked liquid waste*;

    d) is deposited in an approved location at the time of discharge; and,

    e) contains the following information:

        (i) whether the discharge is *domestic trucked liquid waste* or *non-domestic trucked liquid waste*;

        (ii) whether the discharge originates from an *out-of-region generator*;

        (iii) *hauler* name, address, contact information;

        (iv) *hauler* driver name;

        (v) *trucked liquid waste hauling truck* license plate number;

        (vi) date and time of discharge;

        (vii) *generator* name, address, contact information for every *generator* contributing to a single discharge from a *trucked liquid waste hauling truck*;

        (viii) type of waste from each *generator*;

        (ix) the volume or quantity of the waste from each *generator*;

        (x) the *trucked liquid waste authorization number* for the discharge, if a *trucked liquid waste authorization* is required for the discharge under Part 2; and

        (xi) effective June 1, 2022, the *out-of-region discharge number* for the discharge, if the discharge originated from an *out-of-region generator*.

Part 6 – Discharge Fees

27. Every *hauler* who discharges, or allows or causes the discharge of *trucked liquid waste* into a *sewage facility* shall pay to the *District discharge fees* set out in Schedule A of this *Bylaw*, by the date specified in an invoice issued by the *District*.

28. Any *hauler* required to pay *discharge fees* must apply to the *District* for credit and if the Treasurer of the *District* or the Treasurer's designate is satisfied of the credit worthiness of the *hauler*, then the Treasurer of the *District* or designate may grant credit to that *hauler*, in which case payment of the *discharge fees* shall be made and the credit extended on the following conditions:

    (a) the *District* will invoice the *discharge fees* on a monthly basis and the *hauler* receiving credit shall pay the *District* within 30 days of the invoice date;

    (b) the Treasurer of the *District* or the Treasurer's designate may suspend the credit privileges of any *hauler* having an unpaid past due balance.

29. Any *discharge fees* not paid within 30 days of the invoice date will be subject to a monthly interest charge of 1.25% per month (15% per annum).

30. If a *hauler* fails to pay the *discharge fees* required under this *Bylaw* within 30 days of the due date of the invoice, then the *hauler* shall not *discharge, or allow or cause to be discharged, directly or indirectly*, any *trucked liquid waste* into a *sewage facility* until the *hauler* has fully paid the *discharge fees* and the *District* has advised the *hauler* that credit under section 28 has been restored.

31. The remedies for non-payment of *discharge fees* provided in this *Bylaw* are in addition to any other remedies available to the *District*.

Part 7 – Powers and Offences

32. A *person* who provides false or misleading information in a *manifest*, *trucked liquid waste authorization* application, credit application or other submission of information to the *District*, or to an *officer* or the *Sewage Control Manager* in response to a request for additional information, commits an offence.

33. Any *person* who contravenes any provision of this *Bylaw* or a *trucked liquid waste authorization* commits an offence and is liable to a fine not exceeding $10,000.

34. If an offence under this *Bylaw* continues for more than one day, separate fines, each not exceeding $10,000, may be imposed for each day, or partial day, that the offence continues.

Part 8 – General Conditions

35. If any portion of this *Bylaw* is held to be *ultra vires*, illegal, invalid, or unenforceable in any way, in whole or in part, by a court or tribunal of competent jurisdiction, such decision shall not invalidate or void the remainder of the *Bylaw*. The portion so held to be *ultra vires*, illegal, invalid, or unenforceable shall be deemed to be reduced in scope so as to be valid and enforceable, or in the alternative to have been stricken therefrom with the same force and effect as if such parts had never been included in this *Bylaw*.

36. Nothing in this *Bylaw* is intended to conflict with the *Environmental Management Act.* A conflict does not exist solely because further restrictions or conditions are imposed by this *Bylaw* or the *Sewer Use Bylaw.*

37. Words importing the singular number include the plural number and *vice versa*.

Read a first, second and third time this _____ day of _____, _____.

Passed and finally adopted this _____ day of _____, _____.

_____
Sav Dhaliwal, Chair

_____
Chris Plagnol, Corporate Officer

Schedule A

TRUCKED LIQUID WASTE DISCHARGE FEES

In this Schedule A:

"***British Columbia annual Consumer Price Index (CPI) inflation rate***" means the British Columbia annual Consumer Price Index (CPI) inflation rate for the immediately preceding calendar year, published by the British Columbia Ministry of Finance in its annual "British Columbia Financial and Economic Review", and expressed as a percentage.

1. The *discharge fee* applicable to a discharge of *domestic trucked liquid waste* is as set out in Table 1, except that for the year 2026 and for each year following respectively, the *discharge fee* applicable to a discharge of *domestic trucked liquid waste* is the *discharge fee* that was applicable to a discharge of *domestic trucked liquid waste* in the immediately preceding calendar year, increased by the percentage that is the *British Columbia annual Consumer Price Index* (CPI) *inflation rate* and rounded to the nearest $\$0.01/m^3$.

Table 1: Domestic Trucked Liquid Waste Discharge Fees 2021-2025

Year	2021	2022	2023	2024	2025
Rate ($/m^3)	$8.59	$17.48	$26.38	$35.27	$44.17

2. The *discharge fee* applicable to a discharge of *non-domestic trucked liquid waste* is as set out in Table 2, except that for the year 2026 and for each year following respectively, the *discharge fee* applicable to a discharge of *non-domestic trucked liquid waste* is the *discharge fee* that was applicable to a discharge of *non-domestic trucked liquid waste* in the immediately preceding calendar year, increased by the percentage that is the *British Columbia annual Consumer Price Index* (CPI) *inflation rate* and rounded to the nearest $\$0.01/m^3$.

Table 2: Non-Domestic Trucked Liquid Waste Discharge Fees 2021-2025

Year	2021	2022	2023	2024	2025
Rate ($/m^3)	$61.30	$65.80	$70.30	$74.80	$79.30

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
BYLAW NO. 346, 2021
A Bylaw to Regulate the Discharge of Waste into a Sani-dump

WHEREAS:

A. The *Environmental Management Act* of British Columbia and the *Greater Vancouver Sewerage and Drainage District Act* authorize the Greater Vancouver Sewerage and Drainage District (the "*District*") Board (the "*Board*") to make bylaws respecting the direct or indirect discharge of *wastes* into any *sewer* or drain connected to a *sewage facility* operated by the *District*;

B. The *Greater Vancouver Sewerage and Drainage District Act* authorizes the *District* to set fees payable by *persons* who discharge liquid *waste* into any work, service or plant of the *District* for conveying, disposing of, or treating liquid *waste*, and into any work, service, or plant connected thereto; and

C. It is deemed desirable to regulate the discharge of *waste* into *sani-dumps* connected to *sewers* or *sewage facilities.*

NOW THEREFORE the Board of the Greater Vancouver Sewerage and Drainage District enacts as follows:

Citation

1. The official citation of this bylaw is "Greater Vancouver Sewerage and Drainage District Sani-dump Bylaw No. 346, 2021" ("this *Bylaw*").

Schedule(s)

2. The following Schedule is attached to and forms part of this *Bylaw*:
Schedule "A", **REGISTRATION FEE**.

Definitions

3. For ease of reference, words that are italicized in this *Bylaw* are defined terms.
In this *Bylaw*:

"domestic waste" means *wastewater*:

(a) containing human excreta or similar matter;

(b) from showers or restroom washbasins;

(c) from the non-commercial preparation, cooking, or handling of food; or

(d) from non-commercial cleaning or laundry;

but excluding *sludge*.

"*holding tank"* means a container that holds *wastewater* until the *wastewater* is removed for treatment or disposal;

"*operator*" means any *person* who has management or control, directly or indirectly, of a *sani-dump;*

"*owner*" means any *person* who owns, is in possession of, has the right to control, or occupies and controls a *sani-dump*;

"proof of registration" means a printed copy of the prescribed form of registration information submitted to the *District* as set out in section 8 of this *Bylaw*;

"*recreational vehicle waste"* means *domestic waste* accumulated in a *holding tank* in a trailer, camper, transportable housing unit, bus, or long-haul truck with on-board personal lavatory fixtures, or similar vehicles but specifically excludes *trucked liquid waste* or any *waste* transported in a *trucked liquid waste hauling truck;*

"register" means to complete a registration of a *sani-dump* in compliance with all of the requirements of Part 3 in this *Bylaw* and when payment of the *registration fee* has been received by the *District*;

"***registration fee***" means the *registration fee* set out in Table 1 of Schedule A and payable in accordance with Part 2;

"sani-dump" means any facility that is used or may be used for the discharge of *recreational vehicle waste* to a *sewer;*

"*Sewer Use Bylaw*" means *Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007;*

"trucked liquid waste" means *trucked liquid waste* as defined in the *Trucked Liquid Waste Bylaw;*

"Trucked Liquid Waste Bylaw" means *Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw No. 345, 2021*; and

"trucked liquid waste hauling truck" means any vehicle that collects *trucked liquid waste* for the purposes of transporting and discharging that *trucked liquid waste* to a *sewage facility*.

4. Terms that are italicized but not defined in this *Bylaw* have the same meaning given to those terms in the *Sewer Use Bylaw* or incorporated by reference into the *Sewer Use Bylaw*.

5. References in this *Bylaw* to an enactment, including the *Sewer Use Bylaw*, include the enactment as it may be amended or replaced from time to time.

Part 1 – Application

6. Every *person*, including every *owner* or *operator* of a *sani-dump* that allows or causes to be discharged, directly or indirectly, *waste* into a *sewer* or *sewage facility,* must comply with this *Bylaw* and the *Sewer Use Bylaw*.

Part 2 – Restrictions

7. No *person* shall discharge, or allow or cause to be discharged, directly or indirectly, any *waste* into a *sani-dump* connected to a *sewer* or *sewage facility* except *recreational vehicle waste* and only if such discharge is at a *sani-dump* posting a *proof of registration* with the *District*.

Part 3 – Registration

8. Subject to sections 13 and 14, every *owner* or *operator* of a *sani-dump* connected to a *sewer* or *sewage facility* must, no later than 30 days prior to the discharge of any *recreational vehicle waste* into the *sani-dump*, *register* the *sani-dump* with the *District* by:

   (a) providing the following registration information to the *District*, together with any additional relevant registration information required by the *District* in its prescribed form:

      i. *owner* or *operator*'s full name and current contact information;

      ii. civic address of the property where the *sani-dump* is located;

      iii. number of *sani-dump* connections to the *sewer* located on the property;

      iv. signed declaration of *owner* or *operator* that they will comply with this *Bylaw*; and

   (b) paying the *registration fee* to the *District.*

9. Every *owner* or *operator* of a *sani-dump* that is duly *register*ed in accordance with section 8 must post the *proof of registration* at a prominent location at the *sani-dump*.

10. If any of the information in the existing *proof of registration* changes, every *owner* or *operator* of a *sani-dump* must provide current information to the *District* and post a new *proof of registration* in accordance with section 9.

11. Every *person* must, immediately upon the request of an *officer*, provide proof of identity and any other information the *officer* deems necessary to ensure compliance with this *Bylaw*.

Part 4 – Sani-dump Operating Prohibitions and Requirements

12. Every *registered owner* or *operator* of a *sani-dump* connected to a *sewer* or *sewage facility*, must:

   (a) only accept, discharge or allow or cause to be discharged to a *sewer* or *sewage facility recreational vehicle waste*;

(b) not accept, discharge or allow or cause to be discharged to a *sewer* or *sewage facility* any *waste* from a *trucked liquid waste hauling truck*;

(c) keep all equipment and facilities maintained and in good repair so as to prevent discharges of *waste* other than *recreational vehicle waste*;

(d) post signage for proper procedures for discharge to prevent discharges of *waste* other than *recreational vehicle waste*;

(e) post signage advising that only *recreational vehicle waste* may be discharged at a *sani-dump;*

(f) promptly report to the *District* all suspected or observed discharges to a *sani-dump*, *sewer* or *sewage facility* of *waste* other than *recreational vehicle waste*;

(g) provide access to the *sani-dump* for inspection by an *officer* or a *Sewage Control Manager*; and

(h) if the *owner* or *operator* intends to close the *sani-dump*, notify the *District* and upon closure of the *sani-dump*, remove the posted *proof of registration*.

Part 5 – Transition

13. Every *owner* or *operator* of any *sani-dump* that is in operation prior to the adoption of this *Bylaw* must, no later than 6 months following the adoption of this *Bylaw*, provide to the *District* the registration information required under section 8(a).

14. Every *owner* or *operator* of any *sani-dump* that is in operation prior to the adoption of this *Bylaw* and that complies with section 13 is exempt from paying the *registration fee* required under section 8(b).

Part 6 – Powers and Offences

15. A *person* who provides false or misleading information in a registration or in any information submitted to an *officer* in response to a request for additional information, commits an offence.

16. Any *person* who contravenes any provision of this *Bylaw* commits an offence and is liable to a fine not exceeding $10,000.

17. If an offence under this *Bylaw* continues for more than one day, separate fines, each not exceeding the maximum fine for that offence, may be imposed for each day the offence continues.

Part 7 – General Conditions

18. If any portion of this *Bylaw* is held to be *ultra vires*, illegal, invalid, or unenforceable in any way, in whole or in part, by a court or tribunal of competent jurisdiction, such decision shall not invalidate or void the remainder of the *Bylaw*. The portion so held to be *ultra vires*, illegal,

invalid, or unenforceable shall be deemed to be reduced in scope so as to be valid and enforceable, or in the alternative to have been stricken therefrom with the same force and effect as if such parts had never been included in this *Bylaw*.

19. Nothing in this *Bylaw* is intended to conflict with the *Environmental Management Act*. A conflict does not exist solely because further restrictions or conditions are imposed by this *Bylaw* or the *Sewer Use Bylaw*.

20. Words importing the singular number include the plural number and *vice versa*.

Read a first, second and third time this _____ day of _____, _____.

Passed and finally adopted this _____ day of _____, _____.

_____
Sav Dhaliwal, Chair

_____
Chris Plagnol, Corporate Officer

Schedule A

REGISTRATION FEE

In this Schedule A:

"***British Columbia annual Consumer Price Index (CPI) inflation rate***" means the British Columbia annual Consumer Price Index (CPI) inflation rate for the immediately preceding calendar year, published by the British Columbia Ministry of Finance in its annual "British Columbia Financial and Economic Review", and expressed as a percentage.

1. The *registration fee* to be paid under section 8(b) is as set out in Table 1, except that for the year 2022 and for each year following respectively, the *registration fee* to be paid under section 8(b) is the *registration fee* that was to be paid under section 8(b) in the immediately preceding calendar year, increased by the percentage that is the *British Columbia annual Consumer Price Index (CPI) inflation rate* and rounded to the nearest $1.

Table 1: Registration Fee 2021

Year	2021
Registration Fee	$100

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
AMENDING BYLAW NO. 347, 2021
A Bylaw to amend Greater Vancouver Sewerage and Drainage District
Sewer Use Bylaw No. 299, 2007

WHEREAS:

A. the Greater Vancouver Sewerage and Drainage District (the "District") Board (the "Board") has adopted "Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007" to manage and regulate the direct and indirect discharge of waste into any sewers and drains connected to a Sewage Facility operated by the District; and

B. the Board wishes to amend "Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007".

NOW THEREFORE the Greater Vancouver Sewerage and Drainage District Board enacts as follows:

Citation

1. The official citation of this bylaw is "Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 347, 2021" ("Sewer Use Amending Bylaw No. 347, 2021").

Amendment of Bylaw

2. "Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007" is hereby amended as follows:

(a) In Section 2.1, the following definitions are moved into alphabetical order:

"Chemical Oxygen Demand" or "COD"; and

"pH"

(b) In Section 2.1, the following definitions are added in alphabetical order:

"Domestic Trucked Liquid Waste" means Domestic Trucked Liquid Waste as defined in the Trucked Liquid Waste Bylaw;

"Non-Domestic Trucked Liquid Waste" means Non-Domestic Trucked Liquid Waste as defined in the Trucked Liquid Waste Bylaw;

"Recreational Vehicle Waste" means Recreational Vehicle Waste as defined in the Sani-dump Bylaw;

"Sani-dump" means a Sani-dump as defined in the Sani-dump Bylaw;

"Sani-dump Bylaw" means the *Greater Vancouver Sewerage and Drainage District Sani-dump Bylaw No. 346, 2021*;

"Sludge" means any material removed from Wastewater during primary, secondary, or advanced Wastewater treatment and that may or may not have undergone a process to reduce pathogens or vector attraction, but excludes material removed from Wastewater at a District-owned Sewage Facility;

"Trucked Liquid Waste" means Trucked Liquid Waste as defined in the Trucked Liquid Waste Bylaw;

"Trucked Liquid Waste Authorization" means a Trucked Liquid Waste Authorization as defined in the Trucked Liquid Waste Bylaw;

"Trucked Liquid Waste Bylaw" means the *Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw, No. 345, 2021*;

(c) In Section 2.1, the following definitions are deleted:

"Liquid Waste Fee"
"Sanitary Waste"
"Septic Tank Waste"
"Trucked Waste"
"Trucked Waste Authorization"

(d) In Section 2.1, the definition "**Domestic Waste**" is deleted and replaced as follows:

"Domestic Waste" means Wastewater:
(a) containing human excreta or similar matter;
(b) from showers or restroom washbasins;
(c) from the non-commercial preparation, cooking, or handling of food; or
(d) from non-commercial cleaning or laundry;
but excluding Sludge.

(e) In Section 2.1, the definition **"Non-Domestic Waste"** is deleted and replaced as follows:

"Non-Domestic Waste" means all Wastewater except Domestic Waste, Storm Water, Uncontaminated Water, and Trucked Liquid Waste;

(f) In Section 2.1, in the definition "**Order**", after the word "Trucked" the word "Liquid" is added;

(g) In section 2.1, the definition "**Sanitary Sewer**" is deleted and replaced as follows:
"Sanitary Sewer" means a Sewer which carries Wastewater but not intended to carry Storm Water;

(h) In section 2.1, in the definition "**Waste Discharge Permit**", after the word "Bylaw" the phrase "; and" is added; and

(i) In section 2.1, in the definition "**Wastewater**", the phrase "; and" which appears at the end of the definition is deleted.

(j) Section 4 is deleted and replaced as follows:

4. <u>TRUCKED LIQUID WASTE and RECREATIONAL VEHICLE WASTE</u>

4.1 No person shall discharge or allow or cause to be discharged into a Sewer or a Sewage Facility any Trucked Liquid Waste unless such discharge is in compliance with the Trucked Liquid Waste Bylaw.

4.2 No person shall discharge or allow or cause to be discharged into a Sewer or Sewage Facility any Recreational Vehicle Waste unless such discharge is in compliance with the Sani-dump Bylaw.

(k) In the title of Section 5, the phrase "**TRUCKED WASTE AUTHORIZATIONS,**" is deleted;

(l) In Section 5.1, subsection f) is deleted and replaced as follows:

f) water or any other substance for the purpose of diluting any Non-Domestic Waste or Non-Domestic Trucked Liquid Waste.

(m) Section 5.2 is deleted and replaced as follows:

5.2 Nothing prohibits the discharge of any Waste specified in section 5.1 provided:

a) the person, in respect of the discharge, has first obtained a valid and subsisting Waste Discharge Permit, a Trucked Liquid Waste Authorization, or an Order, and the person is in compliance with its provisions; or

b) the person is allowed to make the discharge pursuant to the Grease Interceptor Bylaw, the Fermentation Operations Bylaw, the Hospital Pollution Prevention Bylaw, or a Code of Practice, and the person is in compliance with the requirements of such Bylaw or Code of Practice.

(n) In Section 5.6, the phrase "or a Trucked Waste Authorization" is deleted;

(o) In Section 5.7, the phrase "or Trucked Waste Authorization" is deleted;

(p) Section 5.8 is deleted and replaced as follows:

5.8 Where a substance has been discharged into a Sewer or a Sewage Facility in contravention of any Waste Discharge Permit, Trucked Liquid Waste Authorization, Order, the Grease Interceptor Bylaw, the Fermentation Operations Bylaw, the Hospital Pollution Prevention Bylaw, the Sani-dump Bylaw, the Trucked Liquid Waste Bylaw, or this Bylaw, any person who:

a) owns the Waste being discharged in contravention or who has charge, management, or control thereof;

b) owns, operates, or controls the facility from which the Waste was discharged; or

c) causes or contributes to the causation of the discharge

shall, at the first available opportunity, verbally report such occurrence to a Sewage Control Manager or to an Officer and shall forthwith undertake all remedial action that is available to minimize, counteract, mitigate and remedy the effect of such discharge.

(q) In Section 5.10, the phrase "Trucked Waste Authorization," is deleted;

(r) Section 6.1 is deleted and replaced as follows:

6.1 Whether or not a person holds and is in compliance with the Grease Interceptor Bylaw, the Fermentation Operations Bylaw, the Hospital Pollution Prevention Bylaw, the Trucked Liquid Waste Bylaw, a Waste Discharge Permit, Order, Code of Practice, or an approved Hospital Pollution Prevention Plan, a Sewage Control Manager may, for any of the purposes set out in section 1, issue a Discharge Abatement Order in accordance with section 6.2.

(s) Section 6.2 is deleted and replaced as follows:

6.2 A Discharge Abatement Order may:

a) require a person to alter the quantity, composition, duration and timing of the discharge or cease discharge of Non-Domestic Waste or Non-Domestic Trucked Liquid Waste to a Sewer or Sewage Facility; and

b) include any terms or conditions that could be included in a Waste Discharge Permit.

(t) Section 7.2 is deleted and replaced as follows:

7.2 An Authorization issued in respect to "Trucked Waste" pursuant to the Former Bylaw shall be deemed to be a Trucked Liquid Waste Authorization issued under the Trucked Liquid Waste Bylaw.

(u) In Section 7.3, after the word "Trucked" the word "Liquid" is added;

(v) Section 9.1 is deleted and replaced as follows:

9.1 Without limiting the Board's powers under the *Environmental Management Act*, the Board may, from time to time, appoint one or more persons to be a Sewage Control Manager, a deputy Sewage Control Manager, or an Officer to undertake duties under this Bylaw, the Fermentation Operations Bylaw, the Hospital Pollution Prevention Bylaw, the Grease Interceptor Bylaw, the Sani-dump Bylaw, and the Trucked Liquid Waste Bylaw.

(w) In the title for Section 10, the phrase "/AUTHORIZATION" is deleted;

(x) In Section 10.1, the phrase "or a Trucked Waste Authorization" is deleted;

(y) Section 10.2 is deleted and replaced as follows:

10.2 Any person who contravenes any provision of this Bylaw, the Grease Interceptor Bylaw, the Fermentation Operations Bylaw, the Sani-dump Bylaw, the Trucked Liquid Waste Bylaw, a Waste Discharge Permit, Trucked Liquid Waste Authorization, Order, Code of Practice, or approved Hospital Pollution Prevention Plan shall be liable to the District for and shall indemnify the District from all costs, expenses, damages and injuries resulting from the contravention. This section does not limit any other remedies or actions the District may have under this Bylaw or otherwise at law.

(z) In Section 13.1, the phrase "Trucked Waste Authorization," is deleted;

(aa) In Section 14.1, the phrase "and Liquid Waste Fees" is deleted;

(bb) Section 14.2 is deleted;

(cc) In Section 14.4, the phrase "Liquid Waste Fees or" is deleted;

(dd) In Schedule "A", Section 3, the phrase "Sanitary Waste," is deleted and replaced with "Domestic Waste,";

(ee) In Schedule "A", Section 4, subsection c), after the phrase "Non-Domestic Waste" the phrase "or Non-Domestic Trucked Liquid Waste" is added;

(ff) In Schedule "A", Section 6, the word "sewer" is deleted and replaced with the phrase "Sewer or Sewage Facility";

(gg) In Schedule "B", Section 1 is deleted and replaced as follows:

1. **PARTICLE SIZE WASTE**

Any Non-Domestic Waste or Non-Domestic Trucked Liquid Waste, including that from cooking and handling of food, that at the point of discharge into a Sewer or Sewage Facility, contains particles larger than 0.5 centimetres in any dimension.

(hh) In Schedule "B", Section 2 is deleted and replaced as follows:

2. **pH WASTE**

Any Non-Domestic Waste or Non-Domestic Trucked Liquid Waste which, at the point of discharge into a Sewer or Sewage Facility, has a pH lower than 5.5 or higher than 10.5.

(ii) In Schedule "B", Section 3, after the word "Sewer" the phrase "or Sewage Facility" is added;

(jj) In Schedule "B", Section 5, the phrase "Sanitary Waste" is deleted and replaced with the phrase "Domestic Waste or Domestic Trucked Liquid Waste";

(kk) In Schedule "F", the heading "**LIQUID WASTE FEES**" is deleted and replaced with "**INDUSTRIAL TREATMENT FEES**";

(ll) In Schedule "F", the heading "**SEPTIC TANK WASTE AND TRUCKED WASTE FEES**" immediately above Section 1.1 is deleted; and,

(mm) In Schedule "F", Section 1.1 is deleted and replaced as follows:

1.1 Deleted by *Sewer Use Amending Bylaw No. 347, 2021*.

Read a first, second and third time this _____ day of _____, _____.

Passed and finally adopted this _____ day of _____, _____.

_____
Sav Dhaliwal, Chair

_____
Chris Plagnol, Corporate Officer

metrovancouver

Final Engagement Summary

Trucked Liquid Waste Program Review

Issued: May 2021

42839439

1.0 Overview

1.1 Purpose of this Report

This summary includes an overview of the activities and key findings from the engagement program for Metro Vancouver's Trucked Liquid Waste Program, which includes a review of sections of *Sewer Use Bylaw No. 299, 2007*. From October 2019 to December 2020, Metro Vancouver received input from a variety of industry representatives in feedback sessions, questionnaires, meetings, interviews and through written submissions. The comments and ideas generated in these discussions and written submissions were reviewed by staff as they developed draft policy proposals for consideration by Metro Vancouver's Liquid Waste Committee and Board. A separate Issue – Response Table provides a summary of issues raised during engagement and Metro Vancouver responses, indicating how those issues have been considered during the review.

This report includes the following sections:

1. Overview
2. Engagement Program
3. Engagement Activities and Participation
4. Engagement Themes
5. Next Steps

1.2 Program Review Description

Trucked liquid waste is high strength and must be managed appropriately to minimize risks to the wastewater system. The purpose of *Sewer Use Bylaw No. 299, 2007* is to protect the wastewater system, human health and the environment. Aspects of the bylaw related to trucked liquid waste have not been reviewed since 2007 and associated fees have not been updated since 2012.

A review of the Trucked Liquid Waste Program has identified significant changes to the quantities and types of materials discharged over the last 10 years, as well as evolving business practices. Metro Vancouver is reviewing the program to ensure it reflects current best practices for the management of trucked liquid waste in the region. Regulations, fee structure and definitions require a review to:

- Stay current with industry practices and trends
- Reflect regional population growth
- Better manage what is being delivered to treatment plants

The program review process seeks to:

- Make administrative changes and clarify language
- Update definitions and provide clarity on what wastes must use trucked liquid waste facilities and what wastes can be directly discharged to the wastewater collection system
- Introduce regulations for sani-dumps
- Clarify manifesting requirements for haulers
- Develop processes and protocols for out of region trucked liquid waste
- Update the current fee structure that has not been reviewed since 2012
- Develop educational tools to increase awareness of bylaw requirements

2.0 Engagement Program

2.1 Engagement Summary

2.2 Who we talked to

Metro Vancouver invited the following industry representatives who may be interested in or impacted by changes to the Trucked Liquid Waste Program to participate in the engagement program:

- Trucked liquid waste haulers, including portable toilet companies
- Non-domestic waste generators
- Sani-dump operators
- Neighbouring out of region liquid waste jurisdictions and wastewater treatment plants
- Member jurisdictions

2.3 Engagement Timeline

Beginning in fall 2019, Metro Vancouver engaged with industry representatives to seek input as part of the program review process. The timeline below outlines the engagement activities undertaken in each phase of engagement.

3.0 Activities and Participation

3.1 Engagement Methods and Participation

Date	Activity	Reach
October - November 2019	Presentations to haulers at trucked liquid waste education sessions	64 participants
November 2019	Email invitation to hauler workshop	62 emails sent
December 12, 2019	Trucked liquid waste hauler workshop	11 participants
January 2020	Trucked liquid waste hauler interviews	5 participants
January 2020	Mailed notice to sani-dump operators	17 letters sent
February 2020	Sani-dump operator interviews	8 participants
May - June 2020	Trucked liquid waste hauler questionnaire	8 responses
June 2020	Mailed invitation to out of region liquid waste jurisdictions	8 letters sent
June 2020	Mailed notice to non-domestic waste generators	99 letters sent
June 2020	Non-domestic waste generator questionnaire	4 responses
August - September 2020	Out of region liquid waste jurisdictions and wastewater treatment plant meetings	8 participants in 5 meetings
October 2020	Interim Engagement Summary emailed to industry representatives	126 emails sent
November 2020	Trucked liquid waste and sani-dump policy proposals sent to industry representatives for comment	266 emails & 117 letters sent
December 2020	Sani-dump operator follow-up interviews	13 participants

4.0 Engagement Themes

The comments and ideas provided in the following tables reflect the themes Metro Vancouver heard during the engagement process. Staff reviewed the comments and ideas provided by engagement participants as they developed policy proposals for consideration by Metro Vancouver's Liquid Waste Committee and Board. (Note: Ideas related to facility operations are outside of the scope of this review and therefore not included in this report. All operations-related comments have been shared with the Liquid Waste Services Operations & Maintenance Division.)

4.1 In-person Workshop

Workshop Date	Stakeholder Group / Meeting Topic	# of participants
December 12, 2019	Trucked Liquid Waste Haulers	11

Theme	Participant Comments
Understanding current practices	• Consider the administrative burden on haulers with any proposed changes. Time is a primary factor in improving profit margins for haulers. • Explore verifying loads with customers instead of haulers. • Explore allowing tank tipping at more facilities. Often tanks are not fully emptied resulting in extra trips for haulers and an inability to use full truck capacity, which adds costs to customers. • Note that load contents are difficult to determine for haulers due to pick up volumes being based on an estimate for each customer.
Language and definitions	• Consensus about the definition of 'septic tank' vs. 'holding tank': • Clarify the classification of 'domestic' and 'non-domestic' waste. • Consider the same classification for human and dog waste. • Consider the administrative burden on haulers if Metro Vancouver implements multiple waste type classifications on the manifests.
Fees	• Seek to minimize pressure on haulers, as profit margins are thin. • Note that haulers are an essential service to guarantee proper disposal of waste. A large increase in fees may penalize suppliers providing an important service and may cause an increase in illegal disposal methods. • Clarify the classification of certain types of waste and the fees associated with disposing of those wastes.
Education and awareness	• Develop educational materials for customers, property management companies, developers and homeowners who have septic tanks. Emphasize the cost savings with compliance.

4.2 Interviews

4.2.1 Trucked Liquid Waste Haulers

Interview Dates	Stakeholder Group / Meeting Topic	# of participants
January 7 – 21, 2020	Trucked Liquid Waste Haulers	5

Theme	Participant Comments
Understanding current practices	• Consider maintaining the current process and manifest system at Metro Vancouver facilities, as they are straightforward, simple and accurately report waste types. • Explore adding a section to identify unusual loads on the manifest to address potential contaminated loads. • Clarify the types of waste accepted at various locations. • Note that it is difficult for haulers to track the exact origin of loads for older facilities where connected infrastructure makes it difficult to determine load composition (e.g. failed grease trap connected to a septic system). • Explore developing guidelines for when haulers are aware they are handling a non-compliant or unusual load. • Explore the frequency at which companies collect waste from outside the region, as it is likely infrequent. • Note the impact of private facilities that charge cheaper rates and re-use product beneficially on the reduction of non-domestic waste volumes at Metro Vancouver facilities.
Language and definitions	• Clarify definitions of 'domestic' and 'non-domestic' waste, as they are vague. The understanding of domestic waste is generally consistent, but this is not the case with non-domestic waste. • Clarify the classification of dog waste. • Explore inconsistencies with waste classifications for pit and portable toilets. • Classify and clarify language for managing food service waste for companies inexperienced with this product. • Classify waste from private wastewater treatment plants serving commercial facilities and trailer parks.
Fees	• Explore maintaining current fees, as increased fees will be passed on to customers. • Explore possible non-compliance issues that may arise from a fee increase.
Education and awareness	• Design a visually-focused, plain-language document (1-3 pages) that describes domestic and non-domestic waste types and disposal procedures. Consider an electronic format. • Design materials for both drivers and customers.

	• Explore a quick-reference helpline for haulers to call to assist with resolving questions about questionable loads.

4.2.2 Sani-Dump Operators

Interview Dates	Stakeholder Group / Meeting Topic	# of participants
February 4 – 19, 2020	Sani-Dump Operators	8

Theme	Participant Comments
Understanding current practices	• Note that the majority of sani-dump users are RV operators (mix of holiday goers and full-time residential RV users) and the highest volume periods occur during summer months. Operators mentioned they are periodically approached by carpet cleaning companies, or small portable toilet companies, with requests to discharge. Frequency of requests was higher several years ago, infrequent in recent years. • Note that most operators vet loads based on vehicle type (e.g. RVs are allowed, commercial vehicles are denied). • Consider the administrative burden on operators if you ask them to track discharge volumes. Operators do not currently track these volumes and have no plans to do so in future. • Note that most users of sani-dump facilities are knowledgeable and aware of best practices. • Work with sani-dump operators to ensure harmful products do not enter the sewer system. Operator interests are generally aligned with Metro Vancouver objectives.
Waste types	• Note that there is no clear set of rules for sani-dump use, or material outlining discharge requirements. A few operators have posted procedures at their sani-dump locations.
Sani-dump regulation	• Note that implementing too-stringent regulations could result in sani-dump facility closures. The general consensus amongst operators was that a sani-dump registration system would not create additional operational challenges.
Education and awareness	• Note that sani-dump operators have no authority to dictate how RV users manage their equipment. • Develop educational materials in multiple languages to be distributed by sani-dump operators. • Approach RV and camping associations to assist with communication requirements.

4.2.3 Out of Region Wastewater Jurisdictions

Meeting Dates	Stakeholder Group / Meeting Topic	# of participants
August 10, 2020	City of Chilliwack	2
August 10, 2020	City of Abbotsford	2
August 12, 2020	District of Sechelt	1
August 20, 2020	SYLVIS (on behalf of Fraser Valley Regional District)	1
September 10, 2020	Fraser Valley Regional District (FVRD)	2

Theme	Participant Comments
Waste characteristics	• Note that some jurisdictions have seen increases in industrial loading and cannot handle extra loads. • Note that there have been incidents of haulers trying to deliver waste activated sludge to neighbouring jurisdictions' wastewater treatment plants by labelling waste as 'domestic'.
Communication	• Provide regular updates as the program progresses. • Share best practices to inform trucked liquid waste programs in other jurisdictions. • Clarify why Metro Vancouver is considering restricting out of region waste.
Infrastructure	• Consider the impacts on other jurisdictions who rely on disposing waste at Metro Vancouver facilities and may not have other options for sludge disposal. • Consider the limited infrastructure capacity of wastewater treatment plants in other jurisdictions.
Other	• Note that other jurisdictions are also looking to restrict out of region waste. These jurisdictions understand why Metro Vancouver is considering these changes. • Note the timelines of other jurisdictions' policies to restrict out of region waste at their facilities.

4.3 Questionnaires

4.3.1 Trucked Liquid Waste Haulers

An online questionnaire was open to haulers from May 6, 2020 – June 29, 2020. There were eight questionnaires completed during this period.

Theme	Summary of feedback
Operations	• All respondents were users of the Iona Island Wastewater Treatment Plant, with half of respondents reporting use of a combination of Iona Island, Annacis Island and NW Langley facilities. • Squamish and Mission are the jurisdictions outside of Metro Vancouver most commonly serviced by over half of respondents.
Reporting	• Manifest requirements were clear for both domestic and non-domestic waste. • Haulers understood their responsibilities regarding load type and volume reporting. Just over half were aware of their responsibility to provide contact information for the generator. • Printable manifest forms were identified as potentially helpful. • Since all drivers carry smartphones, it was suggested that there may be an opportunity to develop a cloud-based platform to assist with automated tracking and reporting loads to Metro Vancouver staff.
Waste type	• Tracking of load types and volumes by drivers is achieved through various approaches, including manual/paper tracking by smaller operators, paper records transcribed to a computerized data system, and the use of iPads and GPS. The same systems generally apply to tracking load origin. • Just over half of respondents report mixing loads of liquid waste from different sources, but they all ensure that only loads of the same waste type are mixed. • Holding and septic tanks were identified by all respondents as sources of 'domestic waste', with portable and pit toilets also included by just over half of respondents. • The list of waste types given in the questionnaire accurately reflected the types of waste hauled and no other materials were identified. • Chemical waste was identified by all as a source of 'non-domestic waste', while sewage treatment plant waste was also included by just over half and dog waste and food service waste by exactly half of respondents.
Training and communication	• A mandatory orientation for drivers, including a visual cue to denote completion (e.g. hard hat sticker) was suggested as an educational

	resource; as was certification by the BC Onsite Sewage Association (BCOSSA) and Applied Science Technologists & Technicians of BC (ATTSBC). • Online resources were identified as the preferred format for educational materials, followed by videos and guidebooks. • Email was identified as the preferred medium for receiving status updates on the Trucked Liquid Waste Program.
Fees	• Respondents were generally supportive of a nominal increase in fees but noted that any additional costs would likely be passed on to customers. One respondent expressed concern that too steep of a fee increase might result in non-compliance.

4.3.2 Non-Domestic Waste Generators

An online questionnaire was open to non-domestic waste generators from June 3, 2020 – June 29, 2020. There were four questionnaires completed during this period.

Theme	Summary of feedback
Storage	• One respondent reported that waste activated sludge is held in a sludge storage tank that requires monthly disposal. Noted there are no other options available for disposal, but they are willing to accept nominal increases in fees.
Waste type	• Three respondents indicated that they were wastewater treatment plants that generate sludge requiring disposal. • One of these wastewater treatment plants is located in Chilliwack, where there is no facility to accept waste activated sludge. The discharge fee, combined with hauling costs to Annacis Island Wastewater Treatment Plant, results in substantial costs to the 33-household development. • Waste activated sludge from a wastewater treatment plant is defined by Metro Vancouver as non-domestic, even if the source is a residential housing development. The respondent suggested that this should be reconsidered. • *Post-engagement note: In January 2021, the Abbotsford Mission Water and Sewer Commission adopted the recommendation to accept waste activated sludge on a case-by-case basis including consideration of sludge originating from the Fraser Valley Regional District.*
Other	• None of the respondents have considered energy recovery programs.

4.4 Proposed Policy Changes Comment Period

4.4.1 Trucked Liquid Waste Haulers

Emails with linked web resources explaining the proposed policy changes for trucked liquid waste haulers and generators were sent on November 25, 2020. They included an invitation to submit input or questions about how the proposed policy changes may effect haulers' organizations. The deadline for feedback was December 11, 2020. One respondent provided feedback during the comment period.

Theme	Summary of feedback
Fees	• One respondent was in favour of the proposed gradual fee increase and noted that the deferral of a fee increase until 2022 due to the economic impact of COVID-19 was appropriately compassionate towards haulers and customers.

4.4.2 Non-Domestic Waste Generators

Factsheets explaining the proposed policy changes for trucked liquid waste haulers and generators were mailed to non-domestic waste generators on November 25, 2020. They included an invitation to submit input or questions about how the proposed policy changes may effect generators' organizations. The deadline for feedback was December 11, 2020. Two respondents—both operators of wastewater treatment plants that generate sludge requiring disposal—provided feedback during the comment period.

Theme	Summary of feedback
Fees	• One respondent noted that increasing costs were expected and that proposed fee schedule was reasonable.
Waste type	• One respondent noted that the waste activated sludge from their wastewater treatment plant is defined by Metro Vancouver as non-domestic, even though the source is a residential housing development and their lab results indicate that the sludge does not contain hazardous or dangerous materials.
Out-of-region	• One respondent is the operator of a small residential wastewater treatment plant in Chilliwack. They expressed concerns regarding the proposed policy change to no longer accept out-of-region trucked liquid waste and noted that there are no facilities in the Fraser Valley that will accept the waste activated sludge from their plant. • This respondent also stated that having no other options for discharge of their sludge should be considered an "exceptional circumstance" under the new policy proposal and requested that their waste continue to be accepted on an ongoing basis. • *Post-engagement note: In January 2021, the Abbotsford Mission Water and Sewer Commission adopted the recommendation to accept waste*

	activated sludge on a case-by-case basis including consideration of sludge originating from the Fraser Valley Regional District.

4.4.3 Sani-Dump Operator Follow-up Interviews

Interview Dates	Stakeholder Group / Meeting Topic	# of participants
December 1 – 10, 2020	Sani-Dump Operators	13

Theme	Comments and Ideas from Participants for Metro Vancouver's Consideration and Information
Operations	• One respondent noted that since their initial interview, they have started asking sani-dump customers what type of waste they are dumping.
Fees	• A small registration fee to continue operations would be acceptable.
Sani-dump regulation	• One respondent indicated that they have individual sewer connections for each RV site, with no central sani-dump facility. • One respondent noted that increasing regulations and bureaucracy could be burdensome to operators.

5.0 NEXT STEPS

Informed by this feedback, combined with other policy requirements, Metro Vancouver staff have developed policy proposals to present to Metro Vancouver's Liquid Waste Committee and Board for consideration in May 2021. If approved, these policy changes will be implemented over the summer and fall of 2021.

If you have any comments or questions about the information presented in this Engagement Summary, please contact the Trucked Liquid Waste Program Review project team at TLWreview@metrovancouver.org.

CONSIDERATION OF FEEDBACK
TRUCKED LIQUID WASTE PROGRAM REVIEW

Haulers and Generators - Workshop, interviews, online questionnaires and meetings

The following comments were provided by participants during the Trucked Liquid Waste Program Review engagement activities. Similar comments and questions have been grouped together for response by Metro Vancouver.

#	Category	Source	Participant Comment	Metro Vancouver Response
Understanding Current Practices				
1.	Load reporting/ manifest	Small group meeting – haulers (Dec 12, 2019) Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Reporting loads is an administrative burden for some haulers and can result in delays at trucked liquid waste facilities. Time is a primary factor in improving profit margins in the hauling industry. It is time consuming to input individual load origins and shouldn't be required since this information is already listed on the manifest. Majority of haulers utilize computer or GPS tracking to determine load origin. Bill of lading system (i.e., receipt records of transported loads) also utilized. Most companies expressed no issues tracking load origin. It is the responsibility of the driver to properly track load origin in companies that do not have electronic tracking systems. Companies acknowledged multiple pick-ups are challenging to track with no electronic system. It is difficult to track the exact origin of loads for older facilities, where connected infrastructure makes it difficult to determine load composition (e.g., failed grease trap connected to a septic system).	Metro Vancouver is proposing that a waste manifest continues to be required for each load with the waste type, names and contact information for hauler, driver and generator, volume of load and authorization number, if applicable. Failure to provide complete and accurate information could result in loss of access to all Metro Vancouver facilities.
2.	Contact information on manifest	Small group meeting – haulers (Dec 12, 2019)	Haulers should not be required to provide detailed contact information for their customers. Suggestion that Metro Vancouver research customer contact information through other channels, such as internet searches, if they need to verify load origins. There is some confusion about the communication process for when and how Metro Vancouver follows up on manifest details, such as load origin. Requested clarity and consistency regarding required contact information to determine load origin (i.e., hauler or customer).	Metro Vancouver is proposing that a waste manifest continues to be required for each load with the waste type, names and contact information for hauler, driver and generator, volume of load and authorization number, if applicable. Failure to provide complete and accurate information could result in loss of access to all Metro Vancouver facilities.

#	Category	Source	Participant Comment	Metro Vancouver Response
3.	Tank tipping/ load mixing	Small group meeting – haulers (Dec 12, 2019)	Some Metro Vancouver facilities do not allow tank tipping, so often tanks are not fully emptied. This can result in extra trips for haulers and an inability to use full truck capacity. It may also add costs to customers. The Iona Island Wastewater Treatment Plant facility is the only Metro Vancouver facility that allows tank tipping. Not fully emptying loads can also result in additional load mixing, which could impact the ability to track contents.	Waste defined as 'trucked liquid waste' can only be discharged at designated trucked liquid waste facilities and cannot contain prohibited wastes as outlined in the Sewer Use Bylaw. Mixed loads (loads containing both domestic and non-domestic trucked liquid waste) are not accepted. Requests for operational facility improvements have been shared with Metro Vancouver's Operations and Maintenance division
4.	Load reporting/ manifest/ load mixing	Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Similar process for tracking bulk loads, developed with Metro Vancouver staff, are being adopted by many companies. Practice of double hauling (i.e., collecting waste load and transporting it to a company's holding tank, then to a MV facility as a bulk or mixed load) is viable for domestic waste, but not for non-domestic waste due to fee structure. Some companies assign specific trucks for specific waste types and require unloading every day at Metro Vancouver facilities. Standard company procedure is 1-2 pick-ups per day and unloading at MV facility every day. Increased frequency of unloading does not present tracking difficulties. Companies mix loads of same waste type. None of the companies reported mixing loads of different waste types. Explore adding a section to identify unusual loads on the manifest to address potential contaminated loads. Explore developing guidelines for when haulers are aware they are handling a non-compliant or unusual load.	Waste defined as 'trucked liquid waste' can only be discharged at designated trucked liquid waste facilities and cannot contain prohibited wastes as outlined in the Sewer Use Bylaw. Mixed loads (loads containing both domestic and non-domestic trucked liquid waste) are not accepted. The Procedure Manual and manifest forms will be reviewed and updated after bylaw adoption.

#	Category	Source	Participant Comment	Metro Vancouver Response
5.	Garbage in loads	Online questionnaire – haulers (May -June 2020)	Challenges with people mixing garbage with trucked liquid waste.	Metro Vancouver's "Unflushables" campaign materials can be used to continue informing the public about what can and cannot be disposed in liquid waste systems. Materials are available on Metro Vancouver's website: http://www.metrovancouver.org/services/liquid-waste/advertising-campaigns/Pages/default.aspx
6.	Tracking	Online questionnaire – haulers (May -June 2020)	Hard to monitor volume going in as no counters are used on trucks.	Haulers can monitor or estimate volumes of waste at the point of pick up from generators.
7.	Small wastewater treatment plants	Individual meetings – out of region jurisdiction (Aug 10, 12, Sept 10, 2020)	City of Chilliwack has a small wastewater treatment plant that accepts domestic waste; however, it requires upgrades. There have been incidents of haulers trying to deliver waste activated sludge to Chilliwack's facility by labelling it as "domestic".	Metro Vancouver is proposing that the types of waste currently classified as 'domestic trucked liquid waste' or 'non-domestic trucked liquid waste' stay the same. Sludge generated by small package wastewater treatment plants is industrially processed waste that is highly concentrated and requires additional treatment considerations, thus will continue to be classified as 'non-domestic waste'.
8.	Increase in loads	Individual meetings – out of region jurisdiction (Aug 10, 12, Sept 10, 2020)	JAMES Plant, in Abbotsford, has seen a 50% increase in industrial loading and cannot handle extra loads.	Comment noted.
Language and Definitions				
9.	Manifest and categories	Small group meeting – haulers (Dec 12, 2019)	It is industry practice to classify waste based on the primary source (e.g. septic tank, holding tank, pit toilet, portable toilet). The Metro Vancouver manifest only has four categories. Creating additional categories could lead to more administrative work. The current process at trucked liquid waste facilities is slow, so any changes or updates need to improve efficiency.	Metro Vancouver is proposing updated bylaw definitions to provide clarity. This includes definitions for sources of liquid waste and waste types. The Procedure Manual and manifest forms will be reviewed and updated after bylaw adoption.

#	Category	Source	Participant Comment	Metro Vancouver Response
10.	Holding tanks	Small group meeting – haulers (Dec 12, 2019)	Suggest updating 'holding tank' definition to incorporate two different types of holding tanks: grey water holding tank (hand wash) and sewage holding tank (with high concentration of water). 'Septic tank' definition would be classified as higher concentration of semi-solid waste.	Metro Vancouver is proposing updates to definitions to provide clarity including sources of liquid waste and especially waste types. Metro Vancouver is proposing that the types of waste currently classified as 'domestic trucked liquid waste' or 'non-domestic trucked liquid waste' stay the same.
11.	Portable toilets	Small group meeting – haulers (Dec 12, 2019)	A portable toilet is essentially a small holding tank with chemicals and dye in the water.	Comment noted.
12.	Domestic vs. non-domestic	Small group meeting – haulers (Dec 12, 2019)	The difference between 'domestic' and 'non-domestic' waste requires clarification. In some circumstances, trucked grey water must be disposed at the Iona Island Wastewater Treatment Plant facility and is classified as 'non-domestic'. However, residential properties will discharge the same products into the sewer system, which end up at other Metro Vancouver facilities. Some definitions are confusing (e.g., shower water is not considered grey water so is subject to non-domestic fees).	Definitions have been developed to provide clarity including sources of liquid waste and especially waste types. The types of waste currently classified as 'domestic trucked liquid waste' or 'non-domestic trucked liquid waste' will stay the same. Sludge generated by small package wastewater treatment plants is industrially processed waste that is highly concentrated and requires additional treatment considerations, thus will continue to be classified as 'non-domestic waste'.

#	Category	Source	Participant Comment	Metro Vancouver Response
13.	Pit toilets	Small group meeting – haulers (Dec 12, 2019) Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Pit toilets are a different category because of the unpredictability of waste composition due to contamination (e.g., garbage). Metro Vancouver pit toilets are the only pit toilets in the region. Some haulers report that pit toilet pumping is prearranged with Metro Vancouver and scheduled at Iona Island Wastewater Treatment Plant to process the load. The facility at Iona Island Wastewater Treatment Plant has extended hours on a case by case basis to allow for pit toilet dumping. Pit and portable toilets are more difficult to manage and there is some misinterpretation and misunderstanding of these waste classifications. Many companies choose to avoid dealing with this type of waste. Contamination of pit toilets creates manifest and disposal challenges. The portable toilets waste classification requires clarification.	Metro Vancouver is proposing that pit toilet and portable toilet waste will continue to be classified as domestic trucked liquid waste. Metro Vancouver's operations staff must consider the best way to manage discharges of all waste loads at trucked liquid waste facilities to ensure they do not affect treatment plant processes.
14.	Dog waste	Small group meeting – haulers (Dec 12, 2019) Interviews – haulers (Jan 7, 8, 14 & 21, 2020) Online questionnaire – haulers (May -June 2020)	Dog and human waste should have the same classification on manifests due to similar composition. Metro Vancouver should track how much dog waste is being kept out of the landfill. There was no clear agreement on the classification of dog waste (some companies believe it should be domestic, others consider it better as non-domestic). Pricing of dog waste creates non-compliance issues. Companies who price at non-domestic rates will not get a contract; customer will search for lower rates priced as domestic.	Metro Vancouver is proposing that dog waste will continue to be classified as domestic trucked liquid waste.
15.	Food service waste	Small group meeting – haulers (Dec 12, 2019) Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	The development of sub-categories for food service waste would assist haulers in being more specific about types of waste being hauled, especially grease. Requested classification and clarifying language for food service waste for companies that do not have experience with this type of waste.	Metro Vancouver is proposing that Food Service Establishment waste continue to be classified as non-domestic trucked liquid waste and that it will be regulated under both the Food Sector Grease Interceptor Bylaw and the proposed Trucked Liquid Waste Bylaw.

#	Category	Source	Participant Comment	Metro Vancouver Response
16.	Acceptance at facilities	Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Requested clarification or revision for the types of waste only accepted at certain facilities. Participants expressed confusion as to why certain products are accepted at facilities while others are being rejected.	Metro Vancouver's operations staff must consider the best way to manage discharges of all waste loads at trucked liquid waste facilities to ensure they do not affect treatment plant processes. Metro Vancouver is proposing that the types of waste currently classified as 'domestic trucked liquid waste' or 'non-domestic trucked liquid waste' stay the same.
17.	Small wastewater treatment plants	Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Requested that the classification of waste from private wastewater treatment plants, commercial facilities and trailer parks be clarified. Waste should be classified as domestic as it is a domestic product only from septic systems.	Metro Vancouver is proposing that the types of waste currently classified as 'domestic trucked liquid waste' or 'non-domestic trucked liquid waste' stay the same. Sludge generated by small package wastewater treatment plants is industrially processed waste that is highly concentrated and requires additional treatment considerations, thus will continue to be classified as 'non-domestic trucked liquid waste'.
18.	Unusual load classification	Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Requested section to provide details on unusual loads as manifests don't have a clarification section for unusual loads (e.g. collecting domestic waste from commercial facilities, domestic waste that has been tainted by non-domestic product).	The Procedure Manual and manifest forms will be reviewed and updated after bylaw adoption.
19.	Small wastewater treatment plants / WAS	Online questionnaire – non-domestic waste generators (May - June 2020) Proposed Policy Changes comment period – Generators (November 25, 2020 to December 11, 2020)	Disagreement with definition of waste activated sludge (WAS) from a wastewater treatment plant as non-domestic. WAS from a residential housing development wastewater treatment plant should be defined as domestic, as it is easier to process WAS than it is to process grease trap and septic tank wastewater (which by current definition is domestic wastewater). Strata clients' WAS disposal costs have doubled due to being labeled non-domestic.	The types of waste currently classified as 'domestic trucked liquid waste' or 'non-domestic trucked liquid waste' will stay the same. Sludge generated by small package wastewater treatment plants is industrially processed waste that is highly concentrated and requires additional treatment considerations, thus will continue to be classified as 'non-domestic waste'.

#	Category	Source	Participant Comment	Metro Vancouver Response
20.	Small wastewater treatment plants / WAS	Email comments	The By-Law defines Domestic Waste as (a) Waste produced on Residential Premises. Since 100% of small wastewater treatment plant waste is residential premises generated, it is difficult to understand why it would be re-classified as Non-Domestic to begin with but even more so after treatment and quality improvement. "Domestic Waste" means waste produced on Residential Premises. "Trucked Waste" means any Non-Domestic Waste that is collected and transported off the site on which it originated, by means other than discharge to a Sewer, including but not limited to Oil and Grease from interceptors and other sludges of organic origin. It is our opinion that the Trucked Waste definition describes waste of industrial character, i.e., non-domestic, on site generated waste such as by chemical or food processing plants. Please note "…site on which it originated…" in the definition. The origin of our plants' waste can only be traced to Residential Premises. Waste from small wastewater treatment plants should be reclassified and fall under Domestic Waste.	The types of waste currently classified as 'domestic trucked liquid waste' or 'non-domestic trucked liquid waste' will stay the same. Sludge generated by small package wastewater treatment plants is industrially processed waste that is highly concentrated and requires additional treatment considerations, thus will continue to be classified as 'non-domestic waste'. Definitions have been revised to provide clarity regarding sources of liquid waste and especially waste types.
Fees				
21.	Current hauling fees	Small group meeting – haulers (Dec 12, 2019)	General agreement that current hauling fees for trucked liquid waste are appropriate, but noted that any increase would add pressure to already thin profit margins. Haulers are essentially a "pipeline on wheels" that allows for the proper disposal of waste. A large increase in fees could make haulers feel like they're being penalized for providing an important service.	Trucked liquid waste fees have not been updated since 2012 and they no longer recover the costs of receiving and treating this waste. Metro Vancouver is proposing to defer any increase in fees until 2022 to reflect the economic impact of COVID-19. Fees will be gradually increased each year starting in 2022 until cost recovery is achieved (estimated to happen in 2025). Fees will be indexed to inflation for years after 2025 (annual increases between 0% and 3%).

#	Category	Source	Participant Comment	Metro Vancouver Response
22.	Fees increases	Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Cautioned for a reasonable, incremental increase in fees. Customers will not pay $50/L ($500 per septic treatment). Some companies saw 20% decrease in business in other jurisdictions that increased fees.	Trucked liquid waste fees have not been updated since 2012 and they no longer recover the costs of receiving and treating this waste. Metro Vancouver is proposing to defer any increase in fees until 2022 to reflect the economic impact of COVID-19. Fees will be gradually increased each year starting in 2022 until cost recovery is achieved (estimated to happen in 2025). Fees will be indexed to inflation for years after 2025 (annual increases between 0% and 3%).
23.	Consistent fees across region	Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Request for consistent fees across all jurisdictions in the lower mainland.	Metro Vancouver is proposing to defer any increase in fees until 2022 to reflect the economic impact of COVID-19. Fees will be gradually increased each year starting in 2022 until cost recovery is achieved (estimated to happen in 2025). Fees will be indexed to inflation for years after 2025 (annual increases between 0% and 3%).
24.	Timing for fee increases	Online questionnaire – non-domestic waste generators (May - June 2020) Proposed Policy Changes comment period – Haulers (November 25, 2020 to December 11, 2020)	A nominal increase is reasonable. Rather than a large increase every 8 years consider a smaller increase annually or every 2 years. If the increase is more than 20% of current fees, then it should be done over time, in increments. The current fees for domestic and non-domestic waste are received very well by our customers. We would like to see a gradual increase say over the next 3 years. A very large hike would not sit well with a lot of our clients. A gradual fee increase would be appreciated. Deferral of a fee increase until 2022 due to the economic impact of COVID-19 would be compassionate towards haulers and customers.	Trucked liquid waste fees have not been updated since 2012 and they no longer recover the costs of receiving and treating this waste. Metro Vancouver is proposing to defer any increase in fees until 2022 to reflect the economic impact of COVID-19. Fees will be gradually increased each year starting in 2022 until cost recovery is achieved (estimated to happen in 2025). Fees will be indexed to inflation for years after 2025 (annual increases between 0% and 3%).

#	Category	Source	Participant Comment	Metro Vancouver Response
25.	Roll out of fee increases	Online questionnaire – non-domestic waste generators (May - June 2020) Proposed Policy Changes comment period – Generators (November 25, 2020 to December 11, 2020)	Undoubtedly, it will increase, but we understand it's necessary. However, if the increase is very substantial, we would hope for a consultation explaining the reasons. Increasing costs for disposal are expected and a gradual fee increase is reasonable.	Metro Vancouver is proposing to defer any increase in fees until 2022 to reflect the economic impact of COVID-19. Fees will be gradually increased each year starting in 2022 until cost recovery is achieved (estimated to happen in 2025). Fees will be indexed to inflation for years after 2025 (annual increases between 0% and 3%).
26.	Impact of fee increases	Online questionnaire – haulers (May -June 2020) Online questionnaire – non-domestic waste generators (May - June 2020)	Reduced profit margin, but I would not have a problem with a modest increase in fees to help Metro Van run their facilities and not lose money. Increased costs will be passed on to customers, advising the reason as increased dumping fees. Our company already separates out discharge fee on each invoice, by cubic m. Any increase will obviously increase cost to someone, somewhere. In my situation, any increase will just be absorbed as an operating cost. I am not a pumping service. Direct impacts will vary among our smaller client base. However, most of our clients will accept a small raise in disposal costs. Yes, if the price goes too high it will impact how often customers get their tank pumped and could possibly overflow into the aquifer. If it gets too expensive customers might wait until it is overflowing and leaching. As of earlier this year our clients' (Strata) WAS disposal costs have doubled due to being labeled non-domestic. 64 homes residential housing development WWTP yearly WAS disposal cost: $ 16,800, instead of $ 8,400. We are a strata in Chilliwack with an aeration treatment plant that services 33 households. The discharge fee for non-domestic water, combined with haulage from Cisco to Annacis, is a large financial hit.	Trucked liquid waste fees have not been updated since 2012 and they no longer recover the costs of receiving and treating this waste. Metro Vancouver is proposing to defer any increase in fees until 2022 to reflect the economic impact of COVID-19. Fees will be gradually increased each year starting in 2022 until cost recovery is achieved (estimated to happen in 2025). Fees will be indexed to inflation for years after 2025 (annual increases between 0% and 3%). Sludge generated by small package wastewater treatment plants is industrially processed waste that is highly concentrated and requires additional treatment considerations, thus will continue to be classified as 'non-domestic waste'.

#	Category	Source	Participant Comment	Metro Vancouver Response
27.	Impact of fee increases	Email comments	Our clients (housing development residents without access to Metro Vancouver collection sewers) have spent a great amount of money on the wastewater treatment infrastructure, and they continue to spend more on its operation and maintenance. By far the largest operating cost item is the sludge disposal. Increasing the disposal fee by 580% ($61.30/m3 from $8.59/m3) would be extremely painful to them. It is on their behalf that we urge Metro Vancouver to reconsider and classify these plants' waste as Domestic Waste. "Domestic Waste" means waste produced on Residential Premises. It is understood that like any business METRO needs to, from time to time, adjust and set the waste disposal fees. It is however difficult to understand why the fees would need to be increased overnight by 580%. At our two developments alone, where we operate plants for the owners, 170 residences/families will be confronted by the very substantially increased bills for the cost of waste sludge removal and disposal.	Trucked liquid waste fees have not been updated since 2012 and they no longer recover the costs of receiving and treating this waste. Metro Vancouver is proposing to defer any increase in fees until 2022 to reflect the economic impact of COVID-19. Fees will be gradually increased each year starting in 2022 until cost recovery is achieved (estimated to happen in 2025). Fees will be indexed to inflation for years after 2025 (annual increases between 0% and 3%). Sludge generated by small package wastewater treatment plants is industrially processed waste that is highly concentrated and requires additional treatment considerations, thus will continue to be classified as 'non-domestic waste'.
Education and Awareness				
28.	Homeowners/ septic systems	Small group meeting – haulers (Dec 12, 2019)	Education for homeowners with septic fields would be useful to ensure good practices. Educational materials for customers should focus on cost savings for compliance. Showing cost savings could lead to behaviour change, such as minimizing the use of wipes. Create educational materials for homeowners about proper septic tank maintenance.	Metro Vancouver's "Unflushables" campaign materials can be used to continue informing the public about what can and cannot be disposed in liquid waste systems. Materials are available on Metro Vancouver's website: http://www.metrovancouver.org/services/liquid-waste/advertising-campaigns/Pages/default.aspx
29.	Commercial pump stations	Small group meeting – haulers (Dec 12, 2019)	Education is needed regarding cleaning out sanitary pump stations, which may be located at shopping malls, homes or car lots. Create educational materials for property management companies and developers.	Comment noted.

#	Category	Source	Participant Comment	Metro Vancouver Response
30.	Types of materials	Small group meeting – haulers (Dec 12, 2019) Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Create laminated fact sheets for easy reference. 1 to 3-page outline or something appropriate to attach to invoices. Quick reference helpline for difficult or undetermined loads to coordinate proper disposal procedure. Visual and electronic communication preferred. Material designed for both driver and customer (same document) that outlines specific waste types and procedures for proper disposal of waste types (e.g. waste type: its classification and where it can be disposed).	Metro Vancouver's Facility Use Program will continue to be in place and updated as needed to keep haulers informed. The Procedure Manual and manifest forms will be reviewed and updated after bylaw adoption. Information for drivers and customers is available on Metro Vancouver's Trucked Liquid Waste website: http://www.metrovancouver.org/services/Permits-regulations-enforcement/liquid-waste/trucked-liquid-waste/Pages/default.aspx
31.	Public education	Small group meeting – haulers (Dec 12, 2019)	Wastewater treatment plant field trips for students would help share information about the waste disposal process and what not to flush. Can property taxes be linked to pump outs?	School programs and facility tours are available upon request (subject to current COVID-19 restrictions). Information is available on Metro Vancouver's website : http://www.metrovancouver.org/events/school-programs/K-12-field-trips/facility-tours/wastewater-treatment-plant/Pages/default.aspx
32.	Definitions	Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Clarification and education materials to clearly define domestic and non-domestic products. The current definitions are vague. Plain language outlining domestic and non-domestic types.	Definitions have been revised to provide clarity regarding sources of liquid waste and especially waste types. The types of waste currently classified as 'domestic trucked liquid waste' or 'non-domestic trucked liquid waste' will stay the same.
33.	Hauler/ driver orientation	Online questionnaire – haulers (May -June 2020)	Every driver should go through mandatory orientation (similar to what we attended last year) and wear their sticker on their hard hat. This not only educates drivers but also boosts pride and morale within the group.	Comment noted.

#	Category	Source	Participant Comment	Metro Vancouver Response
34.	Fees increase education	Online questionnaire – haulers (May -June 2020)	Consider issuing a letter that pumper haulers can share with their clients explaining the very reasonable reality of what it costs to run such a facility, the investment in improvements and the unfortunate items homes flush that often disrupt facility service, also costing money. Take this opportunity to educate end users and gain their support.	Metro Vancouver's "Unflushables" campaign materials can be used to continue informing the public about what can and cannot be disposed in liquid waste systems. Materials are available on Metro Vancouver's website: http://www.metrovancouver.org/services/liquid-waste/advertising-campaigns/Pages/default.aspx
Other				
35.	Langley WWTP	Small group meeting – haulers (Dec 12, 2019) Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Upgrading the Northwest Langley Wastewater Treatment Plant trucked liquid waste facility to accept septic waste would benefit haulers and the environment (less trucked miles, less idling time). Confusion why Langley facility is unable to accept septic waste when high percentage of jurisdiction uses septic tanks. Increased carbon footprint results from trucking different types of waste between facilities.	Upgrades to facility operations are outside of the scope of this review. All operations-related comments have been shared with the Operations & Maintenance Division.
36.	Reductions in non-domestic waste	Small group meeting – haulers (Dec 12, 2019) Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Changes in amounts of non-domestic waste coming to Metro Vancouver facilities may partially be attributed to developing technologies (e.g. biodiesel). Reduction in non-domestic volumes a result of additional private facilities (Fraser Valley Biogas, West Coast Reduction, Tervita, Newalta, Terra Pure) who charge lower disposal fees at and are reusing product.	Comments noted.
37.	Portable toilet companies	Small group meeting – haulers (Dec 12, 2019)	Portable toilet companies should be registered and subject to fees. Do bylaw officers visit sani-dumps? Where are non-registered portable toilet operators dumping?	Metro Vancouver is proposing a Sani-dump Bylaw to clarify that only recreational vehicle waste can be discharged to sani-dumps. Metro Vancouver is proposing that portable toilet waste will continue to be classified as domestic trucked liquid waste and that it can only be discharged at designated facilities.

#	Category	Source	Participant Comment	Metro Vancouver Response
38.	Industry working group/ committee	Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Metro Vancouver should establish an ongoing sitting committee to discuss hauling issues within industry.	Comments noted.
39.	Reporting hazardous situations	Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Requested clarification regarding hauler companies' requirement to inform Ministry of Environment and Climate Change Strategy of health hazard situations. For example, if there is a septic overflow in a residential area.	Accidental sewage spills should be reported to the municipality where the spill occurred. Any spill of hazardous material should be reported by calling 911.
40.	Admin and technology	Online questionnaire – haulers (May -June 2020)	Over 95 % of drivers have smartphones. HIGHLY consider creating a SIMPLE cloud based online platform that will make your admins' jobs far more effective and error-proof.	Comments noted.
41.	Trucked liquid waste facility operations	Small group meeting – haulers (Dec 12, 2019) Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Trucked liquid waste facility hours should be extended, or made to be 24/7. Extended hours could prevent backups of trucks needing to offload before the end of operational hours. Emergency calls often occur after hours when haulers aren't able to deliver loads to Metro Vancouver facilities. Should haulers have permission to direct discharge in these instances? In some cases, it seems like preferential treatment may be given to larger companies and developments. In some cases, larger companies have been allowed to offload after hours at Metro Vancouver facilities (e.g., YVR pump station). To increase efficiency of visits, trucks should be weighed upon entering and exiting facility to determine price. Implement multiple stations so more than one truck can unload at a time at facilities like Iona Island Wastewater Treatment Plant.	Upgrades to facility operations are outside of the scope of this review. All operations-related comments have been shared with the Operations & Maintenance Division.
42.	Communications with haulers	Online questionnaire – haulers (May -June 2020)	Two-way communication is key. Each side (haulers and facility) understanding and appreciating each other's realities and challenges. You guys are doing a great job of listening and collaborating so far, keep up the great work.	Comment noted.

#	Category	Source	Participant Comment	Metro Vancouver Response
43.	Out of region options	Online questionnaire – non-domestic waste generators (May - June 2020)	We would like you to take into consideration that if we can't truck our waste to you, what facilities exist for us to use? Currently there is no facility that accepts WAS in the Fraser Valley. Our only option is discharging at a Metro facility. If Metro refuses to accept the WAS because we are not in Metro Vancouver, what other options would be available?	Metro Vancouver facilities are designed and built to handle flows and loads generated in region, and are paid for by regional taxpayers. Accepting additional out of region loads is not sustainable for Metro Vancouver's systems. Additionally, waste activated sludge is a high-strength waste that poses operational challenges and puts additional stress on our treatment systems. Metro Vancouver is proposing to restrict acceptance of trucked liquid waste from outside Metro Vancouver Regional District borders at Metro Vancouver facilities. In exceptional situations, a generator of trucked liquid waste from outside of Metro Vancouver may send a request for exemption to discharge. In January 2021, the Abbotsford Mission Water and Sewer Commission adopted the recommendation to accept waste activated sludge on a case-by-case basis including consideration of sludge originating from the Fraser Valley Regional District.
Out of Region Waste				
44.	Amounts from out of region	Small group meeting – haulers (Dec 12, 2019) Interviews – haulers (Jan 7, 8, 14 & 21, 2020)	Out of region load collection occurs but it is a small percentage of business and arrives at facilities in mixed loads. Some organizations sporadically collect waste from out of region but not their core business.	Comments noted.

#	Category	Source	Participant Comment	Metro Vancouver Response
45.	Out of region prohibitions/ restrictions	Individual meetings – neighbouring jurisdictions (Aug 10, 12, Sept 10, 2020)	What was the main driver behind the move to prohibit out of region waste? Will there be any exceptions to the out of region waste prohibition? As JAMES Plant is no longer accepting out of region waste, and the Chilliwack WWTP is not designed to accept sludge, SYLVIS has some concerns about FVRD's sludge management options in the long term.	Metro Vancouver facilities are designed and built to handle flows and loads generated in region, and are paid for by regional taxpayers. Accepting additional out of region loads is not sustainable for Metro Vancouver's systems. Additionally, waste activated sludge is a high-strength waste that poses operational challenges and puts additional stress on our treatment systems. Metro Vancouver is proposing to restrict acceptance of trucked liquid waste from outside Metro Vancouver Regional District borders at Metro Vancouver facilities. In exceptional situations, a generator of trucked liquid waste from outside of Metro Vancouver may send a request for exemption to discharge. In January 2021, the Abbotsford Mission Water and Sewer Commission adopted the recommendation to accept waste activated sludge on a case-by-case basis including consideration of sludge originating from the Fraser Valley Regional District.
46.	Out of region prohibitions/ restrictions	Individual meetings – neighbouring jurisdictions (Aug 10, 12, Sept 10, 2020)	JAMES Plant, in Abbotsford, supports the concept of out of region waste restrictions but pleased to hear that it will not come into effect immediately. Abbotsford Mission Water and Sewer Commission is interested in pursuing restrictions on out of region trucked liquid waste, too. Chilliwack supports the concept of out of region waste restriction. Chilliwack is interested in pursuing similar restrictions.	Comments noted. In January 2021, the Abbotsford Mission Water and Sewer Commission adopted the recommendation to accept waste activated sludge on a case-by-case basis including consideration of sludge originating from the Fraser Valley Regional District.

#	Category	Source	Participant Comment	Metro Vancouver Response
47.	Out of region prohibitions/ restrictions	Proposed Policy Changes comment period – Generators (November 25, 2020 to December 11, 2020)	We are a residential wastewater treatment plant located in Chilliwack. We are dismayed at the proposed policy change to no longer accept trucked liquid waste from outside the regional boundary. There are no facilities in the Fraser Valley that will accept the waste activated sludge from our plant. Therefore, should this change come into effect, we will have nowhere else to dispose of out plant's sludge. The proposed policy change suggests that an application for the discharge of out-of-region waste may be considered in exceptional circumstances. Having no other options for discharge should always be considered an exceptional circumstance. Can you offer assurance that sludge from our plant will continue to be accepted on an ongoing basis?	At this time, Metro Vancouver cannot assure any generators or haulers that out-of-region trucked liquid waste from any particular facility will be accepted for discharge in future. Metro Vancouver facilities are designed and built to handle flows and loads generated in region, and are paid for by regional taxpayers. Accepting additional out of region loads is not sustainable for Metro Vancouver's systems. Additionally, waste activated sludge is a high-strength waste that poses operational challenges and puts additional stress on our treatment systems. Metro Vancouver is proposing to restrict acceptance of trucked liquid waste from outside Metro Vancouver Regional District borders at Metro Vancouver facilities. In exceptional situations, a generator of trucked liquid waste from outside of Metro Vancouver may send a request for exemption to discharge. In January 2021, the Abbotsford Mission Water and Sewer Commission adopted the recommendation to accept waste activated sludge on a case-by-case basis including consideration of sludge originating from the Fraser Valley Regional District.
48.	Out of region WTPs	Individual meetings – out of region generators (Aug 10, 12, Sept 10, 2020)	FVRD has 6 small package WWTPs that serve their electoral areas. They are small, ranging from 100 m3/day to 800-1000 m3/day.	Comments noted.

Sani-dump Operators – Interviews

The following considerations were raised during all engagement activities and reflect comments, questions and issues provided. Similar questions, suggestions and concerns have been grouped together for response by Metro Vancouver.

#	Category	Source	Participant Comment	Metro Vancouver Response
Understanding Current Practices				
49.	Sani-dump users	Interviews – Sani-dump operators (Feb 4, 6, 10, 11, 12, 13 & 19, 2020)	The majority of sani-dump users are RV operators (mix of holiday goers and full-time residential RV users). Highest volume periods occur during summer months. Some sani-dump operators periodically receive film industry trailers dumping grey water. Fort Langley location indicated they receive waste from tourist buses visiting the nearby provincial park. A few locations have allowed RCMP or Fire Rescue mobile command units to discharge at their facility. Some operators have noticed an increase in frequency of residential RV users utilizing sani-dumps in recent years. Operators mentioned they are periodically approached by carpet cleaning companies or small portable toilet companies to discharge, but not in great frequency.	Discharges at sani-dump facilities will be limited to recreational vehicle waste only. Prohibit the discharge of all other waste types at sani-dumps. Metro Vancouver is proposing the following definition of "recreational vehicle waste": **"*recreational vehicle waste*"** means *domestic waste* accumulated in a *holding tank* in a trailer, camper, transportable housing unit, bus, or long-haul truck with on-board personal lavatory fixtures, or similar vehicles but specifically excludes *trucked liquid waste* or any *waste* transported in a *trucked liquid waste hauling truck;*

#	Category	Source	Participant Comment	Metro Vancouver Response
50.	Sani-dump management and operations	Interviews – Sani-dump operators (Feb 4, 6, 10, 11, 12, 13 & 19, 2020) Follow-up Interviews - Sani-dump operators (December 1-10, 2020)	Some operators required users to check in at a front desk to collect a key to access the sani-dump. Some RV Park operators documented one-time outside users (users not staying in the park or paying park fees). They indicated they do not document any information that can be tracked, such as a license plate number. Some sani-dumps operators are open to all registered park campers and not continually monitored by staff (either via individual sewer outlets at each camping location, or an open sani-dump). Operators who indicated their property had controlled entry points had more success managing their sani-dump and control of what was being discharged by vetting users at point of entry (e.g. electronic gate at the RV park entrance). Some operators' sanitary lines connect to a holding tank or septic system and requires trucked liquid waste haulers to empty. One operator has started asking sani-dump customers what type of waste they are dumping.	Metro Vancouver is proposing requirements for sani-dump operators to display signage outlining proper use, and abide by existing restrictions and prohibitions in the Sewer Use Bylaw regarding discharges. Operators will also be required to report any illegal discharges to Metro Vancouver. Discharges at sani-dump facilities will be limited to recreational vehicle waste only. Prohibit the discharge of all other waste types at sani-dumps. Metro Vancouver is proposing the following definition of "recreational vehicle waste": **"*recreational vehicle waste*"** means *domestic waste* accumulated in a *holding tank* in a trailer, camper, transportable housing unit, bus, or long-haul truck with on-board personal lavatory fixtures, or similar vehicles but specifically excludes *trucked liquid waste* or any *waste* transported in a *trucked liquid waste hauling truck;*
51.	Sani-dump load tracking	Interviews – Sani-dump operators (Feb 4, 6, 10, 11, 12, 13 & 19, 2020)	Operators are not tracking volumes discharged and did not indicate that they were considering implementing such a system. One operator indicated the possibility of using an established revenue tracking method to determine the number of single time users of the sani-dump. Some operators expressed frustration with local jurisdictions as they have passed responsibility for managing or monitoring sani-dumps on to the owner.	Metro Vancouver is proposing requirements for sani-dump operators to display signage outlining proper use, and abide by existing restrictions and prohibitions in the Sewer Use Bylaw regarding discharges. Operators will also be required to report any illegal discharges to Metro Vancouver. Metro Vancouver is proposing a registration system for sani-dumps with few additional requirements of operators that will increase Metro Vancouver's ability to prevent illegal discharges into sani-dumps that pose safety, public health, and environmental risks.

#	Category	Source	Comment / Question / Issue	Metro Vancouver Response
Language and Definitions				
52.	Waste types	Interviews – Sani-dump operators (Feb 4, 6, 10, 11, 12, 13 & 19, 2020)	Majority of operators vet the load based on vehicle type (i.e., RV is allowed, commercial vehicles are denied). This is the primary method for ensuring that loads are compliant. Operators indicated they did not have information materials outlining discharge requirements and waste types readily available for users. Operators have periodically turned users away for the load they were hauling (Carpet cleaners, portable toilet).	Metro Vancouver is proposing requirements for sani-dump operators to display signage outlining proper use, and abide by existing restrictions and prohibitions in the Sewer Use Bylaw regarding discharges. Operators will also be required to report any illegal discharges to Metro Vancouver. Discharges at sani-dump facilities will be limited to recreational vehicle waste only. Prohibit the discharge of all other waste types at sani-dumps.
53.	Sani-dump hook up locations	Interviews – Sani-dump operators (Feb 4, 6, 10, 11, 12, 13 & 19, 2020) Follow-up Interviews - Sani-dump operators (December 1-10, 2020)	Please provide confirmation on how Metro Vancouver views individual dump locations on the campsite (e.g., each RV is assigned a lot location and each lot has an outlet to dump). Is that considered a sani-dump? Or is only the communal dump location considered a sani-dump?	Whether an individual property has a single or multiple discharge locations, the entire property is deemed to be a sani-dump facility. The proposed bylaw and requirements for operators will apply to the sani-dump facility.
Fees				
54.	Risks with fee increases	Interviews – Sani-dump operators (Feb 4, 6, 10, 11, 12, 13 & 19, 2020) Follow-up Interviews - Sani-dump operators (December 1-10, 2020)	Some operators periodically experience issues with users who believe using a sani-dump should be free. Some concern that if fees increase some users will discharge illegally and in a more harmful environment (e.g., into a river). Note that implementing too-stringent regulations could result in sani-dump facility closures. The general consensus amongst operators was that a sani-dump registration system would not create additional operational challenges. A small registration fee to continue operations may be acceptable.	Metro Vancouver is proposing a requirement that sani-dump facilities register with Metro Vancouver. This would include a one-time registration fee for each facility. The one-time registration fee of $100 will increase annually according to an indexed inflation rate (typically 0–3%/year) and those that register within 6 months of bylaw adoption will have the fee waived. Metro Vancouver is proposing that sani-dump operators will be required to display signage outlining proper use, and abide by existing restrictions and prohibitions in the Sewer Use Bylaw regarding discharges. Operators will also be required to report any illegal discharges to Metro Vancouver. These requirements will increase Metro Vancouver's ability to prevent illegal discharges into sani-dumps that pose safety, public health, and environmental risks.

#	Category	Source	Comment / Question / Issue	Metro Vancouver Response
Education and Awareness				
55.	Sani-dump user education	Interviews – Sani-dump operators (Feb 4, 6, 10, 11, 12, 13 & 19, 2020)	Sani-dump operators were open to distributing educational materials (pamphlet, brochures) however were not sure how to manage language barriers and RV experience. Some operators indicated interest in implementing signage and advised materials should work across multiple cultures and languages. An emphasis of visuals rather than text-based communication. Sani-dump operators suggested engaging RV and camping associations to assist in communicating potential new regulations and distribution of educational materials. RV rental agencies provide educational materials to RV holiday goers. BC Campers Associations can assist in the distribution of materials to their membership. Metro Vancouver to develop a user sign off form that operators can distribute to visitors to their sani-dumps, acknowledging that they are aware of regulations regarding discharging to a sani-dump.	Comments noted. Metro Vancouver is proposing requirements for sani-dump operators to display signage outlining proper use, and abide by existing restrictions and prohibitions in the Sewer Use Bylaw regarding discharges. Operators will also be required to report any illegal discharges to Metro Vancouver.
Sani-dump Regulation				
56.	Risk of new regulations	Interviews – Sani-dump operators (Feb 4, 6, 10, 11, 12, 13 & 19, 2020) Follow-up Interviews - Sani-dump operators (December 1-10, 2020)	Operators cautioned Metro Vancouver not to implement stringent requirements as it could result in sani-dump closures in the region. Increasing regulations and bureaucracy may be burdensome to operators.	Comment noted.

#	Category	Source	Comment / Question / Issue	Metro Vancouver Response
57.	New sani-dump regulation	Interviews – Sani-dump operators (Feb 4, 6, 10, 11, 12, 13 & 19, 2020)	Based on the example regulations from the District of Nanaimo, all operators indicated they did not have issues with the potential adoption of those regulations as they are already compliant in regard to only accepting RV waste, not accepting waste from trucked liquid waste haulers, and not accepting non-compliant wastes. Consensus amongst operators that a sani-dump registration system wouldn't present additional operational challenges. General acceptance of implementing a system to regulate the maintenance of sani-dumps, assuming regulations do not require extensive upgrade costs. Open to complying with potential new regulations to ensure no harmful products entered sewer system as it is in the best interest of their operations and Metro Vancouver.	Metro Vancouver is proposing a requirement that sani-dump facilities register with Metro Vancouver. This would include a one-time registration fee for each facility. The one-time registration fee of $100 will increase annually according to an indexed inflation rate (typically 0–3%/year). Metro Vancouver is proposing that sani-dump operators will be required to display signage outlining proper use, and abide by existing restrictions and prohibitions in the Sewer Use Bylaw regarding discharges. Operators will also be required to report any illegal discharges to Metro Vancouver. Discharges at sani-dump facilities will be limited to recreational vehicle waste only. Prohibit the discharge of all other waste types at sani-dumps. Metro Vancouver is also proposing that Metro Vancouver Environmental Regulation and Enforcement staff have the ability to inspect sani-dump facilities and, if improper use is identified, issue warnings, or suspend or stop accepting discharges either temporarily or permanently.

To: Liquid Waste Committee

From: Andjela Knezevic-Stevanovic, Director, Environmental Management & Quality Control, Liquid Waste Services

Date: May 5, 2021 Meeting Date: May 13, 2021

Subject: **Testing for COVID-19 Virus in Wastewater**

RECOMMENDATION

That the Liquid Waste Committee receive for information the report dated May 5, 2021, titled "Testing for COVID-19 Virus in Wastewater".

EXECUTIVE SUMMARY

This report provides an overview of the Liquid Waste Services efforts related to wastewater testing which began in spring 2020, for SARS-CoV-2, the virus that causes COVID-19. Results have been posted on Metro Vancouver's website. Increasing and decreasing trends with each new wave of the outbreak or new phase of restrictions are apparent, although the concentration of the virus in wastewater varies across the region and has changed over time. In spite of numerous challenges, the results provide a valuable source of information for public health agencies. Future work is expected to include genetic sequencing by the British Columbia Centre for Disease Control and the University of British Columbia to allow for differentiation of various virus strains.

PURPOSE

To provide the Liquid Waste Committee with an overview of the wastewater testing for SARS-CoV-2, the virus that causes COVID-19, in samples collected from the influent of five wastewater treatment plants (WWTPs) in the region and results generated to date.

BACKGROUND

The COVID-19 pandemic has been underway for over a year. In the spring of 2020, Metro Vancouver began working with the British Columbia Centre for Disease control (BCCDC) Public Health Laboratory and the University of British Columbia (UBC) to monitor SARS-CoV-2 in wastewater. This collaborative initiative is an expansion of an existing project investigating gastrointestinal illness-causing viruses in wastewater that was previously initiated in partnership with the BCCDC. The implemented approach, often referred to as wastewater based epidemiology, is a technique that includes monitoring and analysis of wastewater to understand an infectious disease and its prevalence in the community. It provides a way to understand the population served by the system as a whole, and potentially the emergence of new outbreaks or resurgence.

METHOD DEVELOPMENT AND CHALLENGES

Wastewater is a complex matrix making virus work challenging. Hence the BCCDC initiated a phased approach, using previously developed quantitative polymerase chain reaction methods to maximize efficiency. Initial efforts focused on testing and validating the methods to analyze the virus in weekly

collected samples of raw influent from Annacis Island WWTP, the largest plant in the region. In September 2020, efforts expanded to include weekly samples from all five WWTPs.

The Metro Vancouver – BCCDC/UBC collaboration is contributing scientific knowledge to the COVID-19 Wastewater Coalition, the national collaboration of municipal utilities, researchers, public health and government agencies organized by the Canadian Water Network. The initiative is also linked with Statistics Canada/Public Health Agency of Canada Wastewater Survey, which involves wastewater testing for Covid-19 by the National Microbiology Laboratory in Winnipeg.

In Canada, as well as globally, scientists developed new molecular methods that use various genes indicative of the SARS-CoV-2 virus for both clinical and wastewater testing. As numerous researchers use different and emerging methods, an important aspect of the scientific effort is the assessment and evaluation of various analytical procedures. This is critical in order to achieve consistency, understand and explain the variabilities, and enable comparison of results generated across the country and over time.

RESULTS

Since February 22, 2021, results have been available on Metro Vancouver's website (see Reference). The information currently only indicates whether the virus is present in wastewater and its weekly oscillations, and as such, the graphs should be considered in context of trend over time, and not as absolute numbers. However, the information provides an insight into a segment of the population that has not been tested clinically, and informs on what is happening on a broader scale. Results are provided for each of the five WWTPs (Attachment, Figures 1 and 2). The changes in virus concentrations can be compared with trends in case numbers and/or changes in how restrictions are implemented or relaxed over time (Attachment, Figure 3).

Results for each WWTP provide a picture of a different region of varying size and population within Metro Vancouver. Assessments are currently underway to consider differences between the plants/sewerage areas and the use of other indicators to normalize the results to allow for regional comparison. Annacis Island and Iona Island WWTPs are the two largest plants and they both receive stormwater, resulting in a more diluted influent during rain events. The size of the sewerage area and the time wastewater spends in the collection system also differs, and may result in different degree of viral degradation within the system. The population serviced may also be a consideration. The team, as are others across Canada and around the world, is evaluating alternate approaches to review and assess the results. Estimating load or normalizing to another virus or substance within wastewater may allow for better comparison among the sewerage areas than the currently employed virus concentrations.

The data are being shared with public health agencies, to augment current population modelling of COVID-19. The results will also aid health authorities in their efforts to combat COVID-19 in BC by providing information on population trends and possibly an early warning of future waves of the disease.

NEXT STEPS

As the third wave began, steps were already underway by the BCCDC and UBC to develop new approaches for metagenomic sequencing of SARS-CoV-2 in wastewater to differentiate between various virus strains. Future efforts may also include collection of samples within the Metro Vancouver collection system.

It is expected that what is learned for COVID-19 will be useful in fighting future pandemics and more importantly for using wastewater to support other public health initiatives to improve the community/regional/global understanding of antimicrobial resistance, other infectious diseases, illicit drug use, etc. Metro Vancouver intends to look into the fate of SARS-CoV-2 throughout the wastewater treatment process, with a goal to better understand occupational exposure risks, and the amount of virus discharged into the environment following wastewater treatment.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

This project has been funded from the annual GVS&DD operating budget.

CONCLUSION

Metro Vancouver has been collaborating with the BCCDC and UBC on testing of the SARS-CoV-2 virus in wastewater at all five regional WWTPs. This work is contributing scientific knowledge to a number of national initiatives that are investigating the COVID-19 virus in wastewater. The results have been posted at Metro Vancouver's website. The virus concentration varies across the region and has changed over time. Assessments are currently underway to allow for better comparison across the Metro Vancouver region. This includes consideration of impact of the temporal wastewater flow fluctuations and differences between the sewerage areas, or the use of other indicators to normalize the results. The data has been shared with public health agencies, to augment current population modelling of COVID-19 and to help combat the disease by providing confirmation and possibly an early warning of future waves. Metro Vancouver plans to look into the fate of SARS-CoV-2 throughout the wastewater treatment process, with a goal to understand occupational exposure risks, and the amount of virus discharged into the environment following wastewater treatment.

Attachment

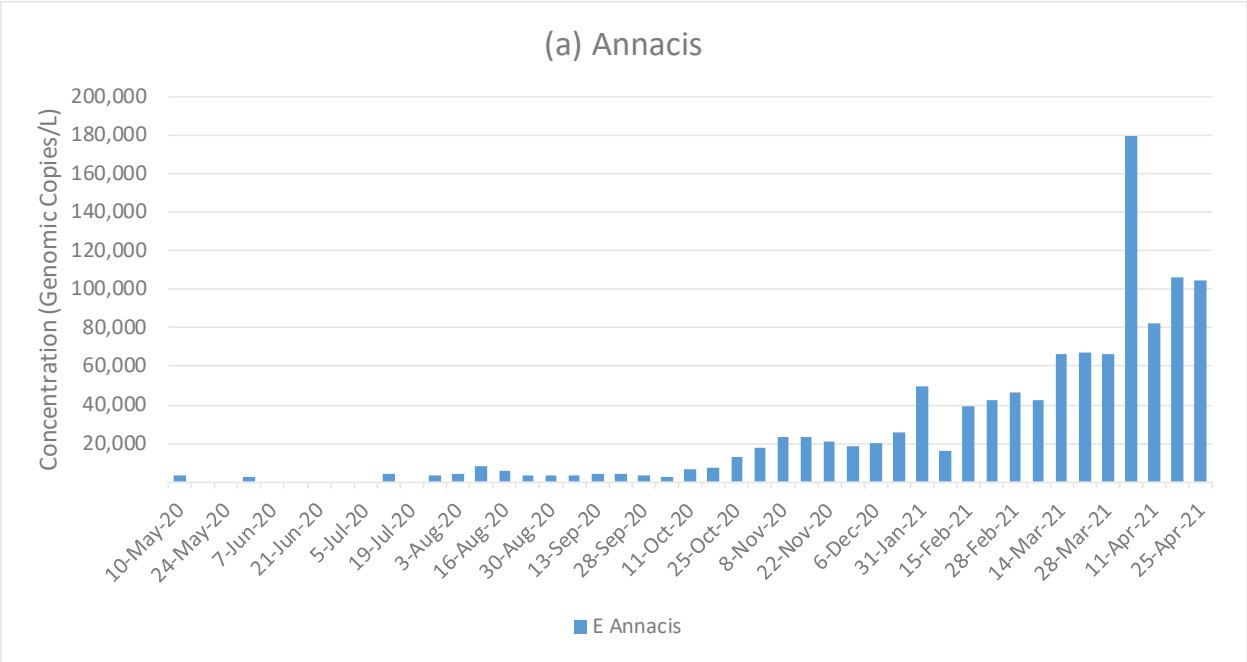
SARS-CoV-2 concentrations in wastewater from the five Metro Vancouver Wastewater Treatment Plants compared with Vancouver Coastal and Fraser Health Authorities' case data

Reference

Testing for COVID-19 Virus in Wastewater - Results on Metro Vancouver website

44432337

Figure 1 SARS-CoV-2 concentration in wastewater for the wastewater treatment plants within the Fraser Health Authority region: (a) Annacis Island and (b) NW Langley wastewater



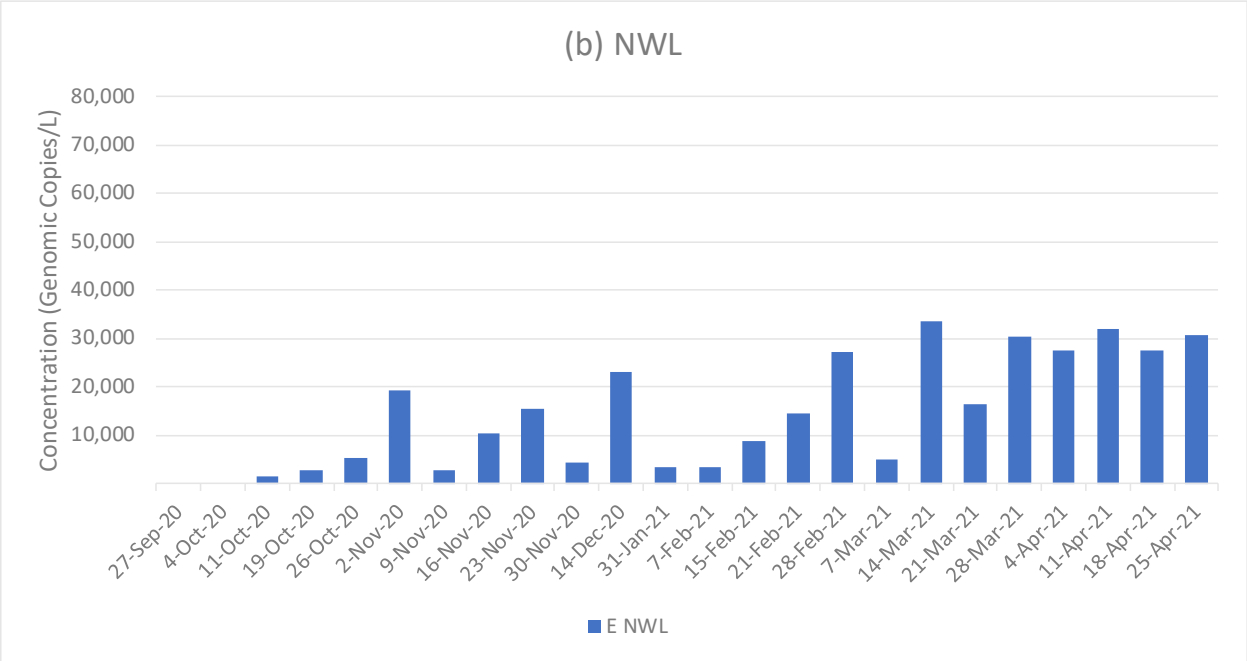
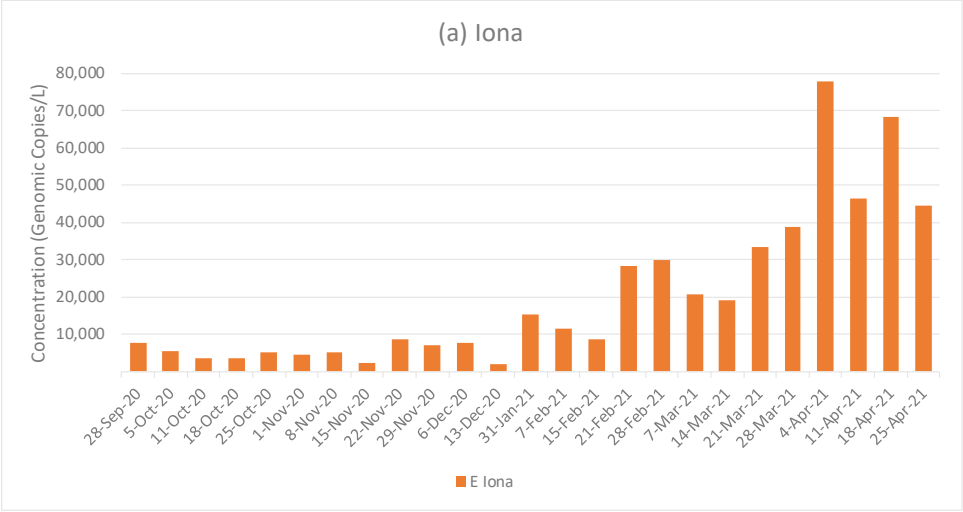
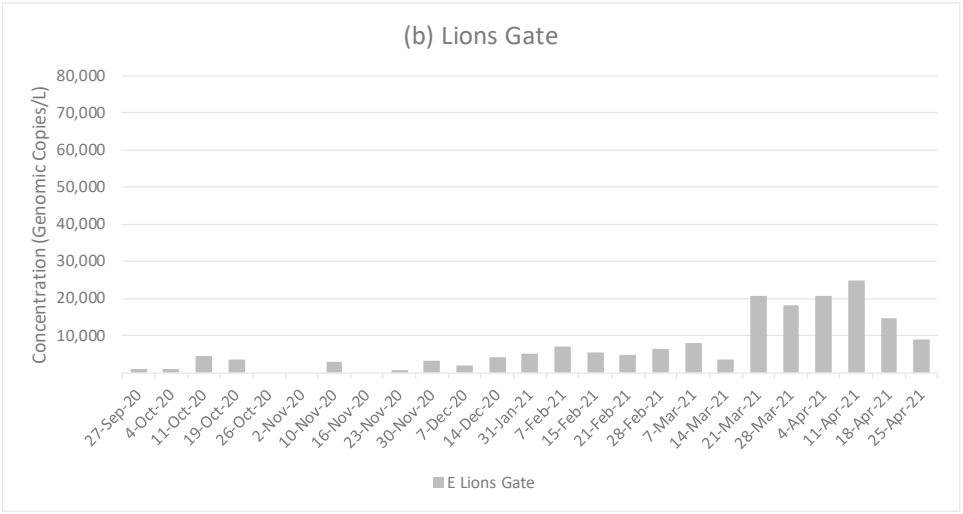


Figure 2 SARS-CoV-2 concentration in wastewater for the wastewater treatment plants in the Vancouver Coastal Health Authority region: (a) Iona, (b) Lions Gate, and (c) Lulu Island





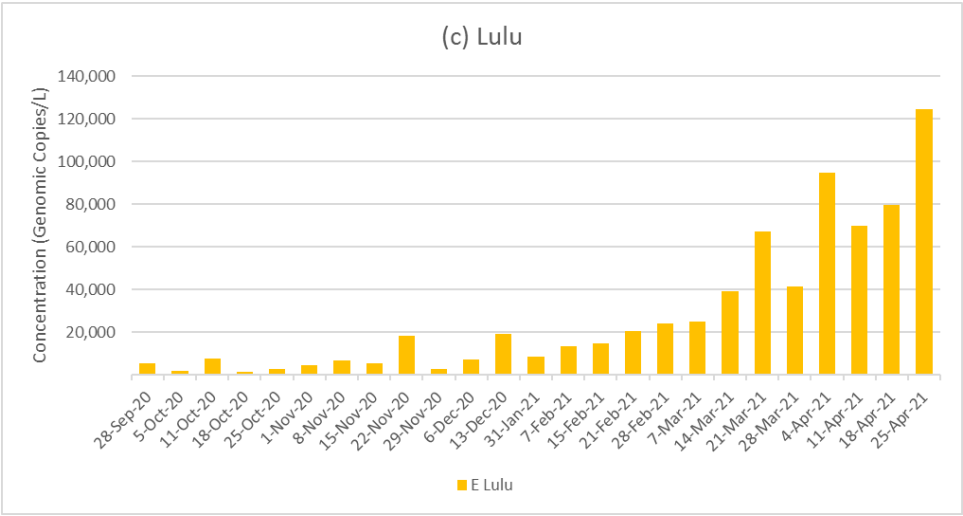
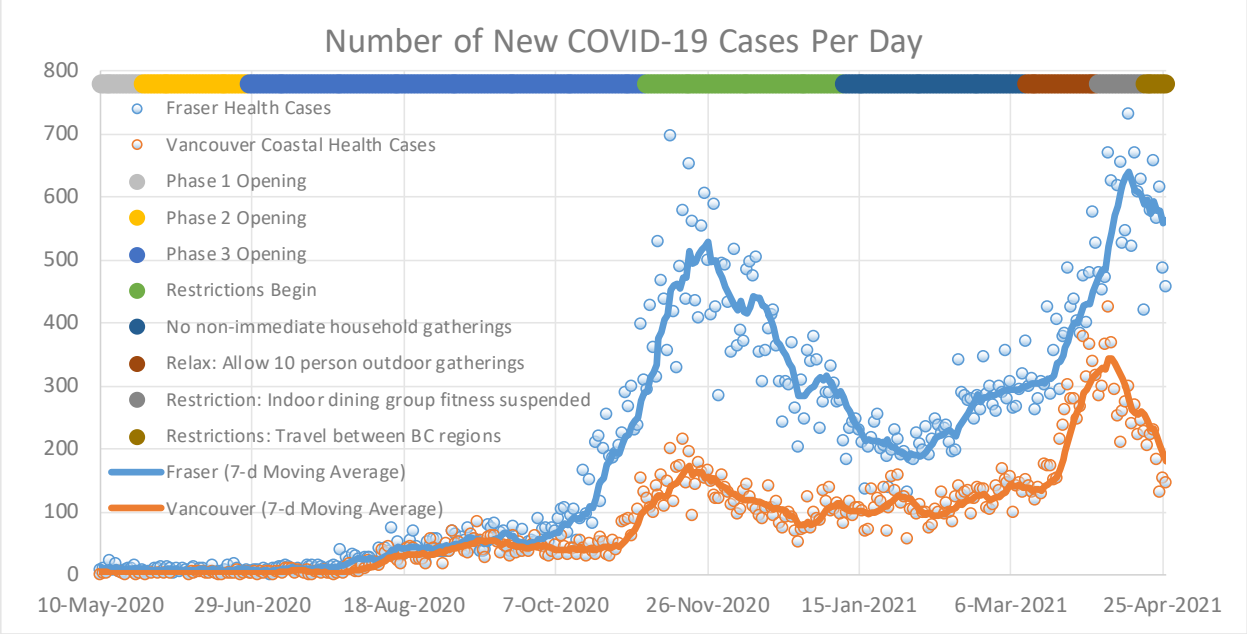


Figure 3 New clinical cases of COVID-19 by health authority[1], and timing of restrictions



1 data source BCCDC website. Note that the Fraser Health Authority region roughly includes the sewerage areas of Annacis Island and NW Langley WWTPs, but also includes areas to the east (e.g., Abbotsford), while Vancouver Coastal Health Authority region roughly includes the sewerage areas of Iona Island, Lions Gate and Lulu Island WWTPs, but also includes areas to the north (e.g., Sea-to-Sky, Sunshine Coast)

To: Liquid Waste Committee

From: Roy Moulder, Director, Purchasing and Risk Management, Financial Services
Jugoslav Bajkin, Division Manager, Collection Systems, Engineering, Design & Construction, Liquid Waste Services

Date: May 12, 2021 Meeting Date: May 13, 2021

Subject: **Award of Contract Resulting from Request for Proposal No. 20-349: New Westminster Interceptor – Columbia Section Rehabilitation by Sliplining**

RECOMMENDATION

That the GVS&DD Board:

a) approve the award of a contract for an amount of up to $26,219,750 (exclusive of taxes) to Oscar Renda Contracting of Canada resulting from Request for Proposal No. 20-349: New Westminster Interceptor – Columbia Section Rehabilitation by Sliplining, subject to final review by the Commissioner; and
b) authorize the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied that the award should proceed.

EXECUTIVE SUMMARY

The New Westminster Interceptor Columbia Section is located on Columbia Street in New Westminster. Inspections have determined that it is in a degraded condition and needs to be rehabilitated. RFP 20-349 for its rehabilitation was issued to three short listed contractors in February 2021 and closed in April. Three proposals were received, and were evaluated for technical and financial performance. The recommended award is to the highest ranked proponent Oscar Renda Contracting of Canada in the amount of up to $26,219,750. The work involves sliplining approximately 1.6 km of the existing sewer, with work to start this summer. The award value is net of $395,500 awarded directly to Oscar Renda Contracting for permit fees and minor early works to ensure synchronized project delivery with the Pattullo Bridge Replacement Project. This will minimize the interferences between the two projects and lessen the cumulative traffic impacts to the local business community.

PURPOSE

The purpose of this report is to advise the GVS&DD Board of the results of Request for Proposal (RFP) No. 20-349: New Westminster Interceptor – Columbia Section Rehabilitation by Sliplining, and to recommend award of a contract in an amount of up to $26,219,750 (exclusive of taxes) to Oscar Renda Contracting of Canada.

BACKGROUND

Pursuant to the *GVS&DD Officers and Delegation Bylaw No. 284, 2014* (Bylaw) and the *Procurement and Real Property Contracting Authority Policy* (Policy), procurement contracts which exceed a value of $5 million require the approval of the Board of Directors.

This report is to request authorization by the GVS&DD Board to award a contract resulting from RFP 20-349: New Westminster Interceptor – Columbia Section Rehabilitation by Sliplining to Oscar Renda Contracting of Canada (Oscar Renda), the highest ranked proponent, in the amount of $26,219,750.

PROJECT DESCRIPTION

The New Westminster Interceptor (NWI) Columbia St. Section conveys the majority of the liquid waste from the cities of Port Moody, Port Coquitlam, Coquitlam and New Westminster to the Annacis Island Wastewater Treatment Plant in the City of Delta. The sewer pipe runs from McBride Boulevard at the upstream end to the junction of Columbia Street and Front Street at the downstream end (see Attachment). This pipe segment is approximately 1.6 km long, varies from 1.05 to 1.5 m in diameter and is made of concrete. The entire sewer segment has experienced significant degradation and requires rehabilitation.

The scope of work in the proposed contract includes installation of approximately 1,450 m of Fiberglass Reinforced Plastic (FRP) pipe by sliplining, 165 m of FRP pipe by open cut and installation of 20 new PVC lined reinforced concrete manholes. The rehabilitation work is planned to start in the summer of 2021, with some work likely extending into 2022. The schedule was developed in consultation with the Pattullo Bridge Replacement Project, which is going to impact a number of major roads in the area. This coordination is intended to reduce the cumulative transportation impacts of the two projects so that the disruption on the local business community is minimized.

As a result of a Request for Qualifications No. 20-348 which was publicly advertised on Metro Vancouver and BC Bid websites, three experienced firms were shortlisted and invited to respond to RFP No. 20-349. The RFP closed on April 8, 2021 and three firms submitted their proposals and pricing, as per the table below:

Contractor	**Total Proposal Price (exclusive of taxes)**
Buntich PW Joint Venture	$23,429,603
Oscar Renda Contracting of Canada	$26,615,250
Michels Canada Company (Michels)	$33,962,720

All three proposals were found to be commercially compliant. The above costs include the listed provisional and optional items as required in the RFP's Schedule of Prices.

Negotiations were conducted with the highest ranked proponent, Oscar Renda, to confirm the project scope, construction methodology, work sequencing and confirm pricing, including provisional items. In addition, due to project schedule constraints, staff discussed an expedited award of an Early Works Package consisting of the following items:

- Project Management; and
- Advanced Submittals and Applications.

These negotiations and clarifications did not change the price for the work, and the fee for all of the construction services remains at the proposal price of $26,615,250 (exclusive of taxes).

Due to the short construction window, to mitigate disruption to the surrounding neighbourhoods, it was determined that a portion of the proposed scope, noted above, and associated fee needed to be awarded in advance, under separate contract, through the appropriate contracting authority and within approved 2021 budgets. In particular, the preparation of various submittals and development of traffic plans ($395,500 (excluding taxes)) is critical to the project construction window. This value is excluded from the recommended award value.

The submissions were evaluated based on 60 points for the technical components and 40 points for the commercial considerations. Oscar Renda's proposal ranked highest on the technical components and second on the commercial considerations. Their proposal was deemed to have a superior and lower risk methodology, and addressed all of the technical requirements, including the ability to handle the surcharge conditions that the lower reaches of the work zone regularly experience. Oscar Renda's proposal ranked the highest overall. Their proposal is considered to provide the best value to the Corporation.

ALTERNATIVES

1. That the GVS&DD Board authorize:
   a) approve the award of a contract for an amount of up to $26,219,750 (exclusive of taxes) to Oscar Renda Contracting of Canada resulting from Request for Proposal No. 20-349: New Westminster Interceptor – Columbia Section Rehabilitation by Sliplining, subject to final review by the Commissioner; and
   b) authorize the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied that the award should proceed.

2. That the GVS&DD Board terminate Request for Proposal No. 20-349: New Westminster Interceptor – Columbia Section Rehabilitation by Sliplining and direct staff to report back to the GVS&DD Board with options for an alternate course of action.

FINANCIAL IMPLICATIONS

If the GVS&DD Board approves Alternative 1, a contract will be awarded to the highest ranked proposal, Oscar Renda, in the amount of up to $26,219,750 (exclusive of taxes). This is within the allocated budget for this project.

The GVS&DD Board has the choice not to proceed with Alternative 1; however, staff will need further direction in relation to the project. Alternative 2 will prevent the project from being completed on the proposed project schedule. Rehabilitation work may be deferred to 2022 and 2023, however this schedule would overlap with elements of the Pattullo Bridge replacement work that are slated to begin in 2022, resulting in significant traffic impacts.

CONCLUSION

The entire NWI Columbia St. Section is a critical sewer infrastructure and has significant degradation. Rehabilitation is required to restore the sewer's structural integrity. A Request for Proposal No. 20-349 was issued for the NWI Columbia St. Section Rehabilitation by Sliplining and Oscar Renda Contracting of Canada was identified as the higher ranked proposal overall. It is recommended that

the GVS&DD Board authorize the Commissioner and the Corporate Officer to award and execute a contract with Oscar Renda Contracting of Canada in the amount of up to $26,219,750 (exclusive of taxes).

Attachment
Map of New Westminster Interceptor – Columbia Street Repair

45029506

ATTACHMENT

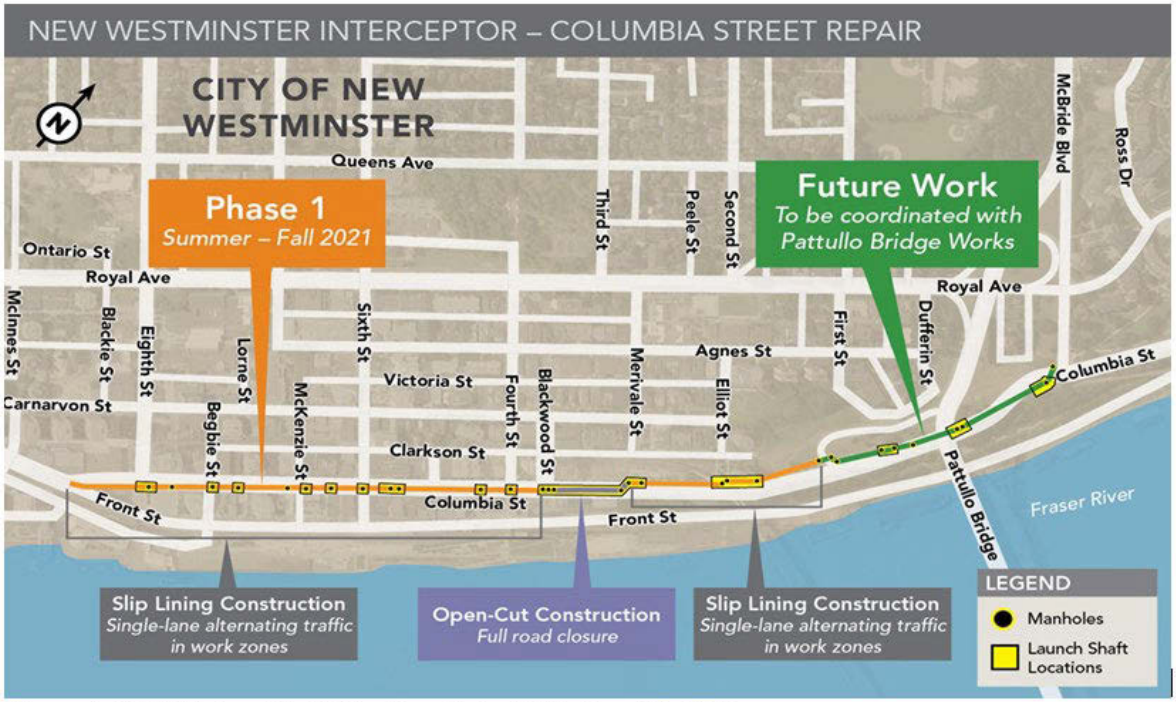


Figure 1. NWI Columbia St. Section Rehabilitation Work Plan

To: Liquid Waste Committee

From: Peter Navratil, General Manager, Liquid Waste Services

Date: April 26, 2021 Meeting Date: May 13, 2021

Subject: **Manager's Report**

RECOMMENDATION
That the Liquid Waste Committee receive for information the report dated April 26, 2021 titled "Manager's Report".

1. Liquid Waste Committee 2021 Work Plan

Attached is the updated 2021 Work Plan indicating the status of the Committee's key priorities for this year.

Attachment:
Liquid Waste Committee 2021 Work Plan

ATTACHMENT

Liquid Waste Committee 2021 Work Plan
Report Date: May 13, 2021

Priorities	
1st Quarter	**Status**
Fats, Oils and Grease 2020 Campaign Update	Complete
Climate 2050 Infrastructure Discussion Paper	Complete
Alternate Models for Single Sewerage Area Allocation	Complete
Expanding Sewer Heat Recovery Opportunities to Reduce Greenhouse Gas Emissions	Complete
Testing of the COVID - 19 Virus in Wastewater	In Progress
Review of Trucked Liquid Waste Provisions of the Sewer Use Bylaw	In Progress
Sustainability Innovation Fund Project Update	Complete
Department Risk Management - Divisional Updates	In Progress
Municipal Requests for Sewerage Area Boundary Amendments (as applicable)	Complete
Utility Policies (as applicable)	Complete
Contract Approvals – Contracts > $5M (as applicable)	Complete
2nd Quarter	
Liquid Waste Services Capital Program Expenditures Update as at Dec 31, 2020	Complete
Integrated Liquid Waste and Resource Management Plan - Biennial Report: 2019-2020	In Progress
2020 GVS&DD Environmental Management and Quality Control Annual Report	In Progress
Procurement Model for Implementation of a Regional Biosolids Drying Facility	In Progress
Burrard Inlet Hydrodynamic Modelling Demonstration	In Progress
Department Risk Management - Divisional Updates	In Progress
Municipal Requests for Sewerage Area Boundary Amendments (as applicable)	In Progress
Utility Policies (as applicable)	In Progress
Contract Approvals – Contracts > $5M (as applicable)	In Progress
3rd Quarter	
Liquid Waste Services Capital Program Expenditures Update as at April 30, 2021	In Progress
Liquid Waste Services Environmental Management System Policy	In Progress
Iona Island Wastewater Treatment Plant Project Definition	In Progress
Sustainability Innovation Fund Project Update	In Progress
Compounds of Environmental Concern Campaign Update	Pending
Department Risk Management - Divisional Updates and LWS Summary	Pending
Municipal Requests for Sewerage Area Boundary Amendments (as applicable)	Pending
Utility Policies (as applicable)	Pending
Contract Approvals – Contracts > $5M (as applicable)	Pending
4th Quarter	**Status**
Liquid Waste Services Capital Program Expenditures Update as at August 31, 2021	Pending
Annual Budget & 5 Year Financial Plan - Liquid Waste	Pending
Results of Unflushables Mini-Campaign	Pending
Review of Food Sector Bylaw	Pending
Integrated Liquid Waste and Resource Management Plan Review and Update	Pending
Asset Risk Management Consolidated Report	Pending
Municipal Requests for Sewerage Area Boundary Amendments (as applicable)	Pending
Utility Policies (as applicable)	Pending
Contract Approvals – Contracts > $5M (as applicable)	Pending

metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Liquid Waste Committee

From: Cheryl Nelms, General Manager, Project Delivery

Date: April 30, 2021 Meeting Date: May 13, 2021

Subject: **Contract Amendment to AECOM Canada Ltd. for Owner's Engineer Advisory Services for North Shore Wastewater Treatment Plant**

The attached report dated March 25, 2021 titled, "Contract Amendment to AECOM Canada Ltd. for Owner's Engineer Advisory Services for North Shore Wastewater Treatment Plant," was considered by the Finance and Intergovernment Committee at its meeting of April 14, 2021, and was considered by the Metro Vancouver Regional District Board at its meeting of April 30, 2021, and is presented to the Liquid Waste Committee for its information only.

Attachment
"Contract Amendment to AECOM Canada Ltd. for Owner's Engineer Advisory Services for North Shore Wastewater Treatment Plant", dated March 25, 2021

ATTACHMENT

metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Finance and Intergovernment Committee

From: Roy Moulder, Director, Purchasing and Risk Management, Financial Services
Paul Sawyer, Director, Major Projects – NSWWTP, Project Delivery

Date: March 25, 2021 Meeting Date: April 14, 2021

Subject: **Contract Amendment to AECOM Canada Ltd. for Owner's Engineer Advisory Services for North Shore Wastewater Treatment Plant**

RECOMMENDATION

That the GVS&DD Board authorize:

a) a contract amendment in the amount of $7,118,094 (exclusive of taxes) to AECOM Canada Ltd. for the provision of owner's engineering consulting services for the North Shore Wastewater Treatment Plant project, subject to final review by the Commissioner; and
b) the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied that the change order should proceed.

EXECUTIVE SUMMARY

The GVS&DD Board has authorized the award of owner's engineering consulting services for the North Shore Wastewater Treatment Plant project to AECOM Canada Ltd (AECOM) in May 2015 for an amount totaling $20,068,395 (including additional change orders). The project has been extended by 2.5 years and Staff recommend amending AECOM's contract in an amount of $7,118,094. Including future Phase 4 (for Handover and Warranty Period efforts as previously negotiated but not yet awarded) the contract total is anticipated to be $28,363,758 (exclusive of taxes). AECOM has proven they provide significant value to the project and are critical to Metro Vancouver's oversight team to ensure compliance with the project agreement and a treatment plant that meets the expectations of Metro Vancouver.

PURPOSE

This report is to request the GVS&DD Board to approve a contract amendment through change order, for the owner's engineering services with AECOM for the North Shore Wastewater Treatment Plant project in an amount of $7,118,094 (exclusive of taxes).

BACKGROUND

Pursuant to the *GVS&DD Officers and Delegation Bylaw No. 284, 2014* (Bylaw) and the *Procurement and Real Property Contracting Authority Policy* (Policy), procurement contracts which exceed a value of $5 million require the approval of the GVS&DD Board of Directors. For multi-phased consultancy contracts, the Policy states that contracting authority for multi-phase contracts is determined based on the anticipated total value of the services to be provided over all phases. This report is being brought forward to the Finance and Intergovernment Committee to consider a recommendation to the GVS&DD Board to amend the contract for owner's engineering services with AECOM in order to continue with the consulting services through to the end of the North Shore Wastewater Treatment Plant project.

IMPACT OF CONTRACT AMENDMENT

The Greater Vancouver Sewage and Drainage District (GVS&DD) is undertaking a treatment upgrade program on the North Shore, as required by Metro Vancouver's Integrated Liquid Waste and Resource Management Plan (ILWRMP) and the new federal Wastewater Systems Effluent Regulations (WSER). Request for Proposal (RFP) No. 14-205, the Engineering Consulting (Owner's Engineer) services for the North Shore Wastewater Treatment Plant project, was awarded to AECOM in 2015, and its scope consisted of the following phases (with new Change Order):

Phase	Description of Services	Awarded Amount	Date Awarded
1	Pre-Procurement and Design-Build-Finance Procurement Documentation	$4,998,864	Jan-15
2	Design-Build-Finance Procurement	$2,385,374	Apr-16
3	Design-Build-Finance Contract Implementation	$9,084,157	May-17
	Change orders to date	$3,600,000	Feb-21
	Change Order to extend owners engineers services	$7,118,094	This Recommendation
5	Handover, Hold Back and Warranty Period	$1,177,269	Not Yet Awarded
	Contract Total:	$28,363,758	

The services awarded up to May 2017 were anticipated to be completed by December 2020 in line with the planned Waste Water Treatment Plant – Design Build Finance (WWTP DBF) contract completion. The Board has subsequently approved the extension of the WWTP DBF contract through to June 2023. In order to extend the duration and level of oversight for this project in line with the revised schedule for the WWTP DBF contract, an amendment to the owner's engineer contract is being sought.

Whereas AECOM's original proposal was based on the expectation that they would be providing consulting services for the project until Dec 31, 2020, the extended schedule to complete the WWTP project necessitates the extension of this phase of AECOM's services until the completion of the WWTP DBF contract. The level of effort required of the owner's engineer for Phase 3 of the project has been and will continue to be considerably higher than prescribed in the original RFP, as additional oversight is required for the project, including for AECOM to be more involved in design reviews, site inspection, QA/QC, and commercial reviews than originally envisioned.

AECOM has added significant value to the project as subject matter experts on the 5000+ page WWTP DBF Project Agreement contract and the long history of the project, identifying design and construction issues that would have gone unchecked otherwise. Their oversight will ensure that the project meets the expectations of Metro Vancouver for the delivery of this new wastewater treatment plant infrastructure.

AECOM has provided a proposal for the remainder of Phase 3, less the $3,600,000 in contract amendments made in November 2020, January and March, 2021, while this extended services amendment was being reviewed and negotiated. This change order is for AECOM to provide owner's engineering consulting services to complete Phase 3 of the work, in the amount of $7,118,094 (exclusive of taxes).

ALTERNATIVES

1. That the GVS&DD Board authorize:
   a) a contract amendment in the amount of $7,118,094 (exclusive of taxes) to AECOM Canada Ltd. for the provision of owner's engineering consulting services for the North Shore Wastewater Treatment Plant project, subject to final review by the Commissioner; and
   b) the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied that the change order should proceed.

2. That the GVS&DD Board receive for information the report dated March 25, 2021, titled "Approve a Contract Amendment to AECOM Canada Ltd. for Owner's Engineer Advisory Services for North Shore Wastewater Treatment Plant" and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

Should the GVS&DD Board approve Alternative 1, these costs can be accommodated within the approved budget for the project as presented to the GVS&DD Board on February 26, 2021.

Should the GVS&DD Board choose Alternative 2, further analysis may be required to advise on project risk and financial impacts.

CONCLUSION

A multi-phase contract in the amount of $20,068,395 is currently in place with AECOM Canada Ltd for owner's engineering consulting services for the North Shore Wastewater Treatment Plant project, including $12,684,157 for Design Build Implementation Services (Phase 3). Due to extension of the WWTP project timeline and an increased level of oversight required for this project, additional fees are required to be added to Phase 3 of the owner's engineer consulting services contract.

It is recommended that the GVS&DD Board authorize the Commissioner and Corporate Officer to amend the contract with AECOM Canada Ltd. to extend owner's engineering consulting services through to the end of the project, in the amount of up to $7,118,094 (exclusive of taxes). This amendment will bring the awarded contract value to $27,186,489 (exclusive of taxes). The total anticipated value of the all four (4) phases is $28,363,758 (exclusive of taxes).

Attachments

1. MVRD Utilities Committee Minutes, dated, April 6, 2017, approving the recommendation to award Phase 3 of the Contract to AECOM *(Doc# 44638965)*
2. GVS&DD Board of Directors Meeting Minutes, dated, April 28, 2017, authorizing award of Phase 3 Contract to AECOM *(Doc# 44638847)*

44105947

METRO VANCOUVER REGIONAL DISTRICT
UTILITIES COMMITTEE

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Utilities Committee held at 9:00 a.m. on Thursday, April 6, 2017 in the 2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia.

MEMBERS PRESENT:
Chair, Mayor Darrell Mussatto, North Vancouver City
Vice Chair, Councillor Colleen Jordan, Burnaby
Mayor John Becker, Pitt Meadows (arrived at 9:15 a.m.)
Mayor Mike Clay, Port Moody
Councillor Charlie Fox, Langley Township
Councillor Nora Gambioli, West Vancouver (arrived at 9:02 a.m.)
Councillor Robin Hicks, North Vancouver District
Councillor Patrick Johnstone, New Westminster
Councillor Bruce McDonald, Delta
Councillor Craig Speirs, Maple Ridge
Councillor Harold Steves, Richmond
Councillor Dave Woods, Surrey

MEMBERS ABSENT:
Councillor Tim Stevenson, Vancouver

STAFF PRESENT:
Tim Jervis, General Manager, Water Services
Fred Nenninger, Director, Policy, Planning and Analysis, Liquid Waste Services
Carol Mason, Chief Administrative Officer
Agata Kosinski, Assistant to Regional Committees, Board and Information Services

1. ADOPTION OF THE AGENDA

1.1 April 6, 2017 Regular Meeting Agenda

It was MOVED and SECONDED
That the Utilities Committee adopt the agenda for its regular meeting scheduled for April 6, 2017 as circulated.

CARRIED

2. ADOPTION OF THE MINUTES

2.1 March 9, 2017 Regular Meeting Minutes

It was MOVED and SECONDED
That the Utilities Committee adopt the minutes of its regular meeting held March 9, 2017 as circulated.

CARRIED

3. DELEGATIONS

No items presented.

4. INVITED PRESENTATIONS

4.1 Hugh Fraser, Deputy Director, Engineering, Corporation of Delta regarding Monitoring Water Salinity

Hugh Fraser, Deputy Director, Engineering, Corporation of Delta, provided the Committee with a presentation on monitoring water salinity in the Fraser River.

9:02 a.m. Councillor Gambioli arrived at the meeting.
9:15 a.m. Mayor Becker arrived at the meeting.

In response to questions, members were updated on the flow of the river in cubic meters per second; salinity issues on Westham Island; impact of deepening of the Fraser River beyond 11 meters in depth; and the predicted high costs of a desalination plant.

Presentation material titled "Monitoring Water Salinity: Metro Vancouver Utilities Committee April 6, 2017" is retained with the April 6, 2017 Utilities Committee agenda.

5. REPORTS FROM COMMITTEE OR STAFF

5.1 Membership in the Canadian Water Network

Report dated March 27, 2017 from Inder Singh, Director, Policy, Planning and Analysis, Water Services, and Fred Nenninger, Director, Policy, Planning and Analysis, Liquid Waste Services, recommending that the GVWD and GVS&DD join the Canadian Water Network.

It was MOVED and SECONDED
That the GVWD/GVS&DD Board authorize Greater Vancouver Water District/Greater Vancouver Sewerage and Drainage District to join the Canadian Water Network as outlined in the report dated March 27, 2017, titled "Membership in the Canadian Water Network".

CARRIED

5.2 Water Supply Forecast and Water Consumption Update for Summer 2017

Report dated March 23, 2017 from Inder Singh, Director, Policy, Planning and Analysis, Water Services, and Marilyn Towill, Acting Director, Operations and Maintenance, Water Services, providing an annual update on the current water supply and water consumption situation in advance of the approaching summer peak demand period.

It was MOVED and SECONDED

That the GVWD Board receive for information the report dated March 23, 2017 titled "Water Supply Forecast and Water Consumption Update for Summer 2017".

CARRIED

5.3 Regional Water Conservation Campaign 2017

Report dated March 19, 2017 from Larina Lopez, Division Manager, Corporate Communications, External Relations, updating the Committee on the 2017 regional water conservation campaign.

It was MOVED and SECONDED

That the GVWD Board receive for information the report dated March 19, 2017 titled "Regional Water Conservation Campaign 2017".

CARRIED

5.4 Status of Utilities Capital Expenditures to December 31, 2016

Report dated March 23, 2017 from Frank Huber, Director, Major Projects, Management Systems and Utility Services, Water Services, and Mark Ferguson, Director, Project Delivery, Liquid Waste Services, reporting on the status of the utilities capital expenditures.

Frank Huber, Director, Major Projects, Management Systems and Utility Services, Water Services, and Mark Ferguson, Director, Project Delivery, Liquid Waste Services, provided members with a presentation on the capital expenditures within both Water and Liquid Waste Services. The presentation highlighted the following projects: the Port Mann Water Supply Tunnel, South Delta Main No. 1 Replacement, Port Mann Main No. 2 (North), Coquitlam Bulk Sodium Hypochlorite Conversion, Clayton Reservoir, E2 Shaft Replacement, Sapperton Pump Station, Ongoing Electrical Upgrades, South Surrey Interceptor Johnston Road Section, Annacis Island Waste Water Treatment Plant, Cogeneration Engines, Iona Island Wastewater Treatment Plant Solids Handling Building, and Northwest Langley Phase 1 Secondary Clarifiers.

Presentation material titled "Capital Expenditure Summary: Utilities Committee Presentation" is retained with the April 6, 2017 Utilities Committee agenda.

It was MOVED and SECONDED
That the GVWD and GVS&DD Boards receive for information the report dated March 23, 2017 titled "Status of Utilities Capital Expenditures to December 31, 2016".

CARRIED

5.5 2016 GVWD Quality Control Annual Report

Report dated March 6, 2017 from Rosanna Yau, Superintendent, Water Services Laboratories, Water Services, providing the Board with a summary of the 2016 GVWD Quality Control Annual Report on drinking water quality.

Rosanna Yau, Superintendent, Water Services Laboratories, Water Services, provided members with a presentation on the Metro Vancouver water quality. The presentation outlined the GVWD 2016 Quality Control Annual Report, highlighting source water quality, Capilano, Seymour, and Coquitlam turbidity, Seymour Capilano Filtration Plant, Guideline for Canadian Drinking Water Quality: filtered water, monthly filter effluent turbidity, Coquitlam Water Treatment Plant, secondary disinfection, distribution system water quality, disinfection by-products, trihalomethanes, and haloacetic acids.

Presentation material titled "GVWD 2016 Quality Control Annual Report" is retained with the April 6, 2017 Utilities Committee agenda.

It was MOVED and SECONDED
That the GVWD Board receive for information the report dated March 6, 2017 titled "2016 GVWD Quality Control Annual Report".

CARRIED

5.6 Award of Phase B – Design-Build Procurement Consulting Services for the Lions Gate Secondary Wastewater Treatment Plant Pump Station and Conveyance Project

Report dated March 15, 2017 from Phil Trotzuk, Chief Financial Officer and Paul Dufault, Project Manager, Lions Gate Secondary Wastewater Treatment Plant, Liquid Waste Services, requesting authorization by the GVS&DD Board to award Phase B, Design-Build Procurement consulting services in the amount up to $2,000,000 (exclusive of taxes) to the Phase A consultant, AECOM Canada Ltd. for the Lions Gate Secondary Wastewater Treatment Plant Pump Station and Conveyance Project.

It was MOVED and SECONDED
That the GVS&DD Board authorize:

a) Award of Phase B, Design-Build Procurement Consulting Services in the amount up to $2,000,000 (exclusive of taxes) to the Phase A consultant, AECOM Canada Ltd., for the Lions Gate Secondary Wastewater Treatment Plant Pump Station and Conveyance Project; and

b) The Commissioner and the Corporate Officer to execute the required documentation.

CARRIED

5.7 Award of Contract for Design-Build-Finance Contract Implementation Consulting Services for the Lions Gate Secondary Wastewater Treatment Plant Project

Report dated March 15, 2017 from Phil Trotzuk, Chief Financial Officer and Paul Dufault, Project Manager, Lions Gate Secondary Wastewater Treatment Plant, Liquid Waste Services, requesting authorization by the GVS&DD Board to award Design-Build-Finance Contract Implementation Consulting Services in the amount up to $9,084,157 (exclusive of taxes) to AECOM Canada Ltd. for the Lions Gate Secondary Wastewater Treatment Plant Project.

It was MOVED and SECONDED

That the GVS&DD Board authorize:

a) Award of a contract in the amount up to $9,084,157 (exclusive of taxes) to AECOM Canada Ltd. for Design-Build-Finance Contract Implementation Consulting Services for the Lions Gate Secondary Wastewater Treatment Plant Project; and

b) The Commissioner and the Corporate Officer to execute the required documentation.

CARRIED

5.8 Impact of Cigarette Butts on Aquatic Life

Report dated from Andjela Knezevic-Stevanovic, Director, Environmental Management and Quality Control, Liquid Waste Services, reporting back to the Utilities Committee and GVS&DD Board on the results of a literature search on the potential impact of cigarette butts on aquatic life.

Members offered comments about the opportunity to launch a public awareness campaign to educate the public of the harmful effects of cigarette butts.

Main Motion

It was MOVED and SECONDED

That the GVS&DD Board receive for information the report dated March 6, 2017, titled "Impact of Cigarette Butts on Aquatic Life".

Members discussed the need for further attention and study of this matter; and suggested that this issue be referred to the Zero Waste Committee for their input and consideration.

Amendment to the Main Motion
It was MOVED and SECONDED
That the Utilities Committee amend the Main Motion by adding the following part b) at the end of the motion:

b) refer the report to the Zero Waste Committee for further consideration.

CARRIED

Question on the Main Motion as Amended
Question was then called on the Main Motion as amended and it was

CARRIED

The Main Motion as amended now reads as follows:

"That the GVS&DD Board:

a) receive for information the report dated March 6, 2017, titled "Impact of Cigarette Butts on Aquatic Life"; and

b) refer the report to the Zero Waste Committee for further consideration."

5.9 Fraser Sewerage Area Amendment – 6625 60th Avenue – Corporation of Delta

Report dated March 2, 2017 from Ed von Euw, Senior Engineer, Policy Planning and Analysis, Liquid Waste Services, responding to a request from the Corporation of Delta for the GVS&DD Board to amend the Fraser Sewerage Area (FSA) to include the building footprints at 6625 60th Avenue in Delta.

It was MOVED and SECONDED
That the GVS&DD Board approve an amendment of the Fraser Sewerage Area to include the building footprints on the property located at 6625 60th Avenue, Delta as shown on District Drawing SA-2376 Sheet 90.

CARRIED

5.10 2017 – 2030 Liquid Waste Sewer Area Household Cost Projections

Report dated March 28, 2017 from Phil Trotzuk, Chief Financial Officer providing the GVS&DD Board with a summary of the updated household costs for each of the four sewer areas within the GVS&DD service area based on the federal and provincial governments grant funding confirmed for the replacement of the Lions Gate Wastewater Treatment Plant.

It was MOVED and SECONDED
That the GVS&DD Board receive for information the report dated March 28, 2017, titled "2017 – 2030 Liquid Waste Sewer Area Household Cost Projections".

CARRIED

5.11 Lions Gate Secondary Wastewater Treatment Plant: Engagement and Communications Activities and New Name

Report dated March 28, 2017 from Andrea Winkler, Program Manager, Public Involvement, Liquid Waste Services, and Fred Nenninger, Director, Policy Planning and Analysis, Liquid Waste Services, providing an update on engagement activities and introducing the new name for the new treatment facility.

It was MOVED and SECONDED

That the Utilities Committee receive for information the report dated March 28, 2017 titled "Lions Gate Secondary Wastewater Treatment Plant: Engagement and Communications Activities and New Name".

CARRIED

5.12 Managers' Report

Report dated March 27, 2017 from Tim Jervis, General Manager, Water Services, and Simon So, General Manager, Liquid Waste Services, providing the Utilities Committee with an update on the status of the Committee's key priorities within the 2017 Work Plan.

The members of the committee were canvased about their preference for touring the facilities of Annacis Island Wastewater Treatment Plant and the Seymour Capilano Water Filtration Plant. Members expressed a preference for two separate half day tours.

It was MOVED and SECONDED

That the Utilities Committee receive for information the "Managers' Report" dated March 27, 2017.

CARRIED

6. INFORMATION ITEMS

No items presented.

7. OTHER BUSINESS

No items presented.

8. BUSINESS ARISING FROM DELEGATIONS

No items presented.

9. RESOLUTION TO CLOSE MEETING

No items presented.

10. ADJOURNMENT/CONCLUSION

It was MOVED and SECONDED
That the Utilities Committee conclude its regular meeting of April 6, 2017.

CARRIED
(Time: 10:43 a.m.)

Agata Kosinski,
Assistant to Regional Committees

Darrell Mussatto, Chair

21263929 FINAL

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
BOARD OF DIRECTORS

Minutes of the Regular Meeting of the Greater Vancouver Sewerage and Drainage District (GVS&DD) Board of Directors held at 9:34 a.m. on Friday, April 28, 2017 in the 2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia.

MEMBERS PRESENT:

Port Coquitlam, Chair, Director Greg Moore
Vancouver, Vice Chair, Director Raymond Louie
Burnaby, Director Derek Corrigan
Burnaby, Director Sav Dhaliwal
Burnaby, Director Colleen Jordan
Coquitlam, Director Craig Hodge
Coquitlam, Director Richard Stewart
Delta, Director Lois Jackson
Electoral Area A, Director Maria Harris
Langley City, Director Rudy Storteboom
Langley Township, Director Charlie Fox
Langley Township, Director Bob Long
Maple Ridge, Alternate Director Tyler Shymkiw, for Nicole Read
New Westminster, Director Jonathan Coté
North Vancouver City, Director Darrell Mussatto
North Vancouver District, Director Richard Walton
Pitt Meadows, Director John Becker
Port Moody, Director Mike Clay
Richmond, Director Malcolm Brodie
Richmond, Director Harold Steves
Surrey, Director Bruce Hayne
Surrey, Alternate Director Vera LeFranc for Tom Gill
Surrey, Alternate Director Mike Starchuk for Linda Hepner
Surrey, Director Barbara Steele
Surrey, Director Judy Villeneuve
Vancouver, Alternate Director George Affleck for Geoff Meggs
Vancouver, Director Heather Deal
Vancouver, Director Kerry Jang
Vancouver, Director Andrea Reimer
Vancouver, Director Tim Stevenson
West Vancouver, Director Michael Smith
White Rock, Director Wayne Baldwin
Commissioner Carol Mason (Non-voting member)

MEMBERS ABSENT:

Vancouver, Director Gregor Robertson

STAFF PRESENT:

Agata Kosinski, Assistant to Regional Committees, Board and Information Services
Chris Plagnol, Corporate Officer

A. ADOPTION OF THE AGENDA

1. April 28, 2017 Regular Meeting Agenda

It was MOVED and SECONDED
That the GVS&DD Board adopt the agenda for its regular meeting scheduled for April 28, 2017 as circulated.

CARRIED

B. ADOPTION OF THE MINUTES

1. March 31, 2017 Regular Meeting Minutes

It was MOVED and SECONDED
That the GVS&DD Board adopt the minutes for its regular meeting held March 31, 2017 as circulated.

CARRIED

C. DELEGATIONS

No items presented.

D. INVITED PRESENTATIONS

No items presented.

E. CONSENT AGENDA

It was MOVED and SECONDED
That the GVS&DD Board adopt the recommendations contained in the following items presented in the April 28, 2017 GVS&DD Board Consent Agenda:

1.1 Membership in the Canadian Water Network
1.2 Status of Utilities Capital Expenditures to December 31, 2016
1.3 Award of Phase B – Design-Build Procurement Consulting Services for the Lions Gate Secondary Wastewater Treatment Plant Pump Station and Conveyance Project
1.4 Award of Contract for Design-Build-Finance Contract Implementation Consulting Services for the Lions Gate Secondary Wastewater Treatment Plant Project
1.5 Impact of Cigarette Butts on Aquatic Life
1.6 Fraser Sewerage Area Amendment – 6625 60th Avenue, Corporation of Delta
1.7 2017 – 2030 Liquid Waste Sewer Area Household Cost Projections
2.1 Disposal Ban Surcharge Waiver Pilot Project for Residual Waste from Licensed Brokering Facilities
2.2 2016 Disposal Ban Program Update
2.3 2016 Regional Food Scraps Recycling Campaign Results
2.4 Create Memories, Not Garbage: 2016 Campaign Results
3.1 Audited 2016 Financial Statements
4.1 2017 Budget - Status of Reserves
5.1 Delegations Received at Committee April 2017

CARRIED

The items and recommendations referred to above are as follows:

1.1 Membership in the Canadian Water Network

Report dated March 27, 2017, from Inder Singh, Director, Policy, Planning and Analysis, Water Services, and Fred Nenninger, Director, Policy, Planning and

Analysis, Liquid Waste Services, recommending that the GVS&DD join the Canadian Water Network.

Recommendation:
That the GVS&DD Board authorize Greater Vancouver Sewerage and Drainage District to join the Canadian Water Network as outlined in the report dated March 27, 2017, titled "Membership in the Canadian Water Network".

Adopted on Consent

1.2 Status of Utilities Capital Expenditures to December 31, 2016

Report dated March 23, 2017, from Frank Huber, Director, Major Projects, Management Systems and Utility Services, Water Services, and Mark Ferguson, Director, Project Delivery, Liquid Waste Services, reporting on the status of the utilities capital expenditures.

Recommendation:
That the GVS&DD Board receive for information the report dated March 23, 2017 titled "Status of Utilities Capital Expenditures to December 31, 2016".

Adopted on Consent

1.3 Award of Phase B – Design-Build Procurement Consulting Services for the Lions Gate Secondary Wastewater Treatment Plant Pump Station and Conveyance Project

Report dated March 15, 2017, from Phil Trotzuk, Chief Financial Officer and Paul Dufault, Project Manager, Lions Gate Secondary Wastewater Treatment Plant, Liquid Waste Services, seeking Board authorization to award Phase B, Design-Build Procurement consulting services in the amount up to $2,000,000 (exclusive of taxes) to the Phase A consultant, AECOM Canada Ltd. for the Lions Gate Secondary Wastewater Treatment Plant Pump Station and Conveyance Project.

Recommendation:
That the GVS&DD Board authorize:

a) Award of Phase B, Design-Build Procurement Consulting Services in the amount up to $2,000,000 (exclusive of taxes) to the Phase A consultant, AECOM Canada Ltd., for the Lions Gate Secondary Wastewater Treatment Plant Pump Station and Conveyance Project; and
b) The Commissioner and the Corporate Officer to execute the required documentation.

Adopted on Consent

1.4 Award of Contract for Design-Build-Finance Contract Implementation Consulting Services for the Lions Gate Secondary Wastewater Treatment Plant Project

Report dated March 15, 2017, from Phil Trotzuk, Chief Financial Officer and Paul Dufault, Project Manager, Lions Gate Secondary Wastewater Treatment Plant,

Liquid Waste Services, seeking Board authorization to award Design-Build-Finance Contract Implementation Consulting Services in the amount up to $9,084,157 (exclusive of taxes) to AECOM Canada Ltd. for the Lions Gate Secondary Wastewater Treatment Plant Project.

Recommendation:
That the GVS&DD Board authorize:

a) Award of a contract in the amount up to $9,084,157 (exclusive of taxes) to AECOM Canada Ltd. for Design-Build-Finance Contract Implementation Consulting Services for the Lions Gate Secondary Wastewater Treatment Plant Project; and
b) The Commissioner and the Corporate Officer to execute the required documentation.

Adopted on Consent

1.5 Impact of Cigarette Butts on Aquatic Life

Report dated April 7, 2017, from the Utilities Committee, together with report dated March 6, 2017 from Andjela Knezevic-Stevanovic, Director, Environmental Management and Quality Control, Liquid Waste Services, informing the GVS&DD Board on the results of a literature search on the potential impact of cigarette butts on aquatic life, and recommending that the Board refer the report to the Zero Waste Committee for their consideration.

Recommendation:
That the GVS&DD Board:

a) receive for information the report dated March 6, 2017, titled "Impact of Cigarette Butts on Aquatic Life"; and
b) refer the report to the Zero Waste Committee for further consideration.

Adopted on Consent

1.6 Fraser Sewerage Area Amendment – 6625 60th Avenue, Corporation of Delta

Report dated March 2, 2017, from Ed von Euw, Senior Engineer, Policy Planning and Analysis, Liquid Waste Services, responding to a request from the Corporation of Delta for the GVS&DD Board to amend the Fraser Sewerage Area (FSA) to include the building footprints at 6625 60th Avenue in Delta.

Recommendation:
That the GVS&DD Board approve an amendment of the Fraser Sewerage Area to include the building footprints on the property located at 6625 60th Avenue, Delta as shown on District Drawing SA-2376 Sheet 90.

Adopted on Consent

1.7 2017 – 2030 Liquid Waste Sewer Area Household Cost Projections

Report dated March 28, 2017, from Phil Trotzuk, Chief Financial Officer, providing the GVS&DD Board with a summary of the updated household costs for each of the four sewer areas within the GVS&DD service area based on the

federal and provincial governments grant funding confirmed for the replacement of the Lions Gate Wastewater Treatment Plant.

Recommendation:
That the GVS&DD Board receive for information the report dated March 28, 2017, titled "2017 – 2030 Liquid Waste Sewer Area Household Cost Projections".

Adopted on Consent

2.1 Disposal Ban Surcharge Waiver Pilot Project for Residual Waste from Licensed Brokering Facilities

Report dated March 30, 2017, from Allen Jensen, Assistant Project Engineer, Solid Waste Services, seeking GVS&DD Board direction to proceed with a pilot project to waive recyclable material disposal ban surcharges on contaminated recyclables in residual waste from licensed brokering facilities.

Recommendation:
That the GVS&DD Board approve proceeding with a pilot project to waive recyclable material disposal ban surcharges for residual waste from licensed brokering facilities and that staff report back on the results and any proposed changes to the *Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Bylaw No. 302, 2016.*

Adopted on Consent

2.2 2016 Disposal Ban Program Update

Report dated March 30, 2017, from Brandon Ho, Senior Project Engineer, Solid Waste Services, providing the annual update on the *Metro Vancouver Disposal Ban Program*.

Recommendation:
That the GVS&DD Board receive for information the report dated March 30, 2017, titled "2016 Disposal Ban Program Update".

Adopted on Consent

2.3 2016 Regional Food Scraps Recycling Campaign Results

Report dated February 17, 2017, from Larina Lopez, Corporate Communications Division Manager, External Relations, providing an update on the results of the 2016 regional food scraps recycling campaign to support the Organics Disposal Ban.

Recommendation:
That the GVS&DD receive for information the report dated February 17, 2017, titled "2016 Regional Food Scraps Recycling Campaign Results."

Adopted on Consent

2.4 Create Memories, Not Garbage: 2016 Campaign Results

Report dated February 17, 2017, from Larina Lopez, Corporate Communications Division Manager, External Relations, providing an update on the results of the 2016 regional Christmas behaviour change campaign in support of Metro Vancouver's *Integrated Solid Waste and Resource Management Plan*.

Recommendation:

That the GVS&DD receive for information the report dated February 17, 2017, titled "Create Memories, Not Garbage Campaign: 2016 Campaign Results".

Adopted on Consent

3.1 Audited 2016 Financial Statements

Report dated March 30, 2017, from Phil Trotzuk, Chief Financial Officer and Linda Sabatini, Finance Operations and Systems, Division Manager, Financial Services, seeking Board approval, of the Audited 2016 Financial Statements for the Greater Vancouver Sewerage and Drainage District.

Recommendation:

That the GVS&DD Board approve the Draft Audited 2016 Financial Statements for the Greater Vancouver Sewerage and Drainage District.

Adopted on Consent

4.1 2017 Budget - Status of Reserves

Report dated March 31, 2017, from Phil Trotzuk, Chief Financial Officer, General Manager, Financial Services, seeking approval for additional reserve applications to those previously approved by the Board in October 2016 and to present the reserve status of operating and designated reserves for 2017.

Recommendation:

That the GVS&DD Board approve the application of reserves as set out in Schedule 1 of the report dated March 31, 2017, titled "2017 Budget - Status of Reserves".

Adopted on Consent

5.1 Delegations Received at Committee April 2017

Report dated April 7, 2017, from Chris Plagnol, Corporate Officer, informing the Board of the submissions received from Committee delegations in April 2017.

Recommendation:

That the GVS&DD Board receive for information the report, dated April 7, 2017, titled "Delegations Received at Committee April 2017" containing submissions received from the following delegates:

a) Mateo Ocejo, Net Zero Waste Group and Jaye-Jay Berggren, Sea to Sky Soils.

Adopted on Consent

F. ITEMS REMOVED FROM THE CONSENT AGENDA

No items presented.

G. REPORTS NOT INCLUDED IN CONSENT AGENDA

1. Greater Vancouver Sewerage and Drainage District Development Cost Charge Reserve Fund Expenditure Bylaw No. 303, 2017

Report dated March 10, 2017, from Dean Rear, Financial Planning and Operations, Director, Financial Services, requesting that the GVS&DD Board authorizes the required transfer to support the 2016 financial plan.

It was MOVED and SECONDED

That the GVS&DD Board give first, second and third reading to *Greater Vancouver Sewerage and Drainage District Development Cost Charge Reserve Fund Expenditure Bylaw No. 303, 2017.*

CARRIED

It was MOVED and SECONDED

That the GVS&DD Board pass and finally adopt *Greater Vancouver Sewerage and Drainage District Development Cost Charge Reserve Fund Expenditure Bylaw No. 303, 2017.*

CARRIED

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN

No items presented.

I. OTHER BUSINESS

No items presented.

J. BUSINESS ARISING FROM DELEGATIONS

No items presented.

K. RESOLUTION TO CLOSE MEETING

It was MOVED and SECONDED

That the GVS&DD Board close its regular meeting scheduled for April 28, 2017 pursuant to the *Community Charter* provisions, Section 90 (1) (g), (k) and 90 (2) (b) as follows:

"90 (1) A part of a board meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:

(g) litigation or potential litigation affecting the regional district;

(k) negotiations and related discussions respecting the proposed provision of a regional district service that are at their preliminary stages and that, in the view of the board or committee, could reasonably be expected to harm the interests of the regional district if they were held in public; and

90 (2) A part of a meeting must be closed to the public if the subject matter being considered relates to one or more of the following:

(b) the consideration of information received and held in confidence relating to negotiations between the regional district and a provincial government or the federal government or both, or between a provincial government or the federal government or both and a third party."

CARRIED

L. RISE AND REPORT (Items Released from Closed Meeting)

No items presented.

M. ADJOURNMENT/CONCLUSION

It was MOVED and SECONDED

That the GVS&DD Board adjourn its regular meeting of April 28, 2017.

CARRIED

(Time: 9:35 a.m.)

CERTIFIED CORRECT

Chris Plagnol, Corporate Officer

Greg Moore, Chair