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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

METRO VANCOUVER REGIONAL DISTRICT
LIQUID WASTE COMMITTEE

MEETING

Wednesday, May 14, 2025
9:00 am
28th Floor Committee Room, 4515 Central Boulevard, Burnaby, British Columbia
Webstream available at https://www.metrovancouver.org

A G E N D A

A. ADOPTION OF THE AGENDA

1. May 14, 2025 Meeting Agenda
That the Liquid Waste Committee adopt the agenda for its meeting scheduled for May 14, 2025 as circulated.

B. ADOPTION OF THE MINUTES

1. March 12, 2025 Meeting Minutes *pg. 6*
That the Liquid Waste Committee adopt the minutes of its meeting held March 12, 2025 as circulated.

C. DELEGATIONS

D. INVITED PRESENTATIONS

E. REPORTS FROM COMMITTEE OR CHIEF ADMINISTRATIVE OFFICER

1. Food Sector Grease Interceptor Bylaw Enforcement

pg. 13

Executive Summary

Metro Vancouver Liquid Waste Regulatory Program officers promote compliance with, and enforce, the GVS&DD's six liquid waste bylaws to mitigate risk to the District, protect the environment and human health and safety, and recover costs from industrial users. A component of the regulatory program is enforcing the *Greater Vancouver Sewerage and Drainage District Food Sector Grease Interceptor Bylaw No. 365, 2023* which regulates discharges to sewer of fats, oils and grease from commercial food sector establishments (FSEs) by setting requirements for grease interceptors. The region's significant number of FSEs mean that inspections are prioritized based on municipal referrals of hot spots. In 2025, staff plan to inspect at least 350 FSEs, develop more stringent grease interceptor sizing requirements for some FSEs, continue to do outreach and education, and use Notices of Bylaw Violation where voluntary compliance efforts are not effective.

Recommendation

That the Liquid Waste Committee receive for information the report dated May 5, 2025, titled "Food Sector Grease Interceptor Bylaw Enforcement".

2. 2025 Update on Liquid Waste Sustainability Innovation Fund Projects

pg. 22

Executive Summary

This report provides an update on eight projects that were approved for funding under the Liquid Waste Sustainability Innovation Fund (SIF) that are currently in progress or have been completed or discontinued since the last update to the designated Standing Committee. Projects funded by SIF support regional sustainability and continuously improve service delivery by allowing Metro Vancouver to explore and implement innovative approaches and respond to emerging issues and evolving best practices. The projects outlined in this report advance these objectives through: improving the efficiency and resilience of infrastructure, enhancing resource recovery from wastewater, producing low-carbon fuels that reduce greenhouse gas emissions, and protecting the environment. The projects are:

- High Efficiency Aeration Demonstration (discontinued)
- Intelligent Water Systems – Making Use of Sensors and Big Data Analytics (complete)
- Hydrothermal Processing – Biofuel Demonstration Facility (in progress)
- Advanced Resource Recovery from Sludge – Industrial Research Chair (in progress)
- Multiphase Composite Coating for Concrete Sewers (in progress)
- Handheld Wastewater Microbial DNA Monitor (complete)
- Biorock – Innovative Building Material (in progress)
- Hydrogen System Integration at LIWWTP (in progress).

Recommendation

That the GVS&DD Board receive for information the report dated April 14, 2025, titled “2025 Update on Liquid Waste Sustainability Innovation Fund Projects”.

3. 2025 Adult Toilet Training Campaign Launch *pg. 40*

Executive Summary
Flushing disposable wipes contributes to sewer clogs, overflows, and damaged equipment that costs the region over $2 million yearly. While there are other items that cause issues in our sewers, disposable wipes are the most problematic. To address this, Metro Vancouver is resurrecting a 2016 concept — Adult Toilet Training — that tackles wipes exclusively. Starting May 12, the campaign will target residents 18–34, as research shows they are the most likely to flush wipes. The concept delivers a singular message that asks residents to put wipes in the garbage while at the same time challenging the belief that there are "flushable" wipes. Campaign materials feature humorous bathroom tips, where one tip is always "never flush wipes." The paid media buy includes placements on social media, Netflix, radio, restobar washrooms, and elevator screens. Campaign effectiveness will be tracked via the number of deragging incidents within the wastewater system and a 2026 post-campaign survey.

Recommendation
That the Liquid Waste Committee receive for information the report dated April 23, 2025, titled "2025 Adult Toilet Training Campaign Launch."

4. Manager's Report *pg. 49*

Recommendation
That the Liquid Waste Committee receive for information the report dated May 2, 2025 titled "Manager's Report".

F. INFORMATION ITEMS

G. OTHER BUSINESS

H. 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.

That the Liquid Waste Committee close its meeting scheduled for May 14, 2025 pursuant to section 226 (1) (a) of the *Local Government Act* and the *Community Charter* provisions as follows:

90 (1) A part of a council 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 municipality; and

90 (2) A part of a council 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 and a third party.

I. ADJOURNMENT

That the Liquid Waste Committee adjourn its meeting of May 14, 2025.

Membership:

Brodie, Malcolm (C) – Richmond
Knight, Megan (VC) – White Rock
Albrecht, Paul – Langley City
Binder, Rod – Delta
Cassidy, Christine – West Vancouver
Elford, Doug – Surrey
Ferguson, Steve – Langley Township
Kim, Steve – Coquitlam
Kirby-Yung, Sarah – Vancouver
Little, Mike – North Vancouver District
MacDonald, Nicole – Pitt Meadows
Nakagawa, Nadine – New Westminster
Wang, James – Burnaby
West, Brad – Port Coquitlam

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

METRO VANCOUVER REGIONAL DISTRICT
LIQUID WASTE COMMITTEE

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Liquid Waste Committee held at 9:02 am on Wednesday, March 12, 2025 in the 28th Floor Committee Room, 4515 Central Boulevard, Burnaby, British Columbia.

MEMBERS PRESENT:
Chair, Director Malcolm Brodie, Richmond
Vice Chair, Director Megan Knight, White Rock
Councillor Paul Albrecht, Langley City
Councillor Christine Cassidy, West Vancouver
Director Doug Elford, Surrey
Director Steve Ferguson, Langley Township
Councillor Steve Kim, Coquitlam
Director Sarah Kirby-Yung, Vancouver*
Mayor Mike Little, North Vancouver District (arrived at 9:21 am)
Director Nicole MacDonald, Pitt Meadows
Director Nadine Nakagawa, New Westminster
Councillor James Wang, Burnaby
Director Brad West, Port Coquitlam*

*denotes electronic meeting participation as authorized by the *Procedure Bylaw*

MEMBERS ABSENT:
Director Rod Binder, Delta

STAFF PRESENT:
Peter Navratil, General Manager, Liquid Waste Services
Jacque Killawee, Division Manager, Board and Information Services
Zeno Farinelli, Lead Senior Engineer, Liquid Waste Services
George Kavouras, Director, Procurement, Procurement and Real Estate Services
Morgan Mackenzie, Legislative Services Coordinator, Board and Information Services
Colin Meldrum, Director, Engineering Design & Construction, Liquid Waste Services
Carol Nicolls, Communications Specialist, Corporate Communications
Lillian Zaremba, Program Manager, Policy Planning and Analysis, Liquid Waste Services
Dana Zheng, Program Manager, Source Control Plan & Management Liquid Waste Services

A. ADOPTION OF THE AGENDA

1. March 12, 2025 Meeting Agenda

It was MOVED and SECONDED
That the Liquid Waste Committee:
a) amend the revised agenda for its meeting scheduled for March 12, 2025, to vary the order of the agenda to consider Item H before Item B; and
b) adopt the amended agenda.

CARRIED

H. RESOLUTION TO CLOSE MEETING

It was MOVED and SECONDED
That the Liquid Waste Committee close its meeting scheduled for March 12, 2025 pursuant to section 226 (1) (a) of the Local Government Act and the Community Charter provisions as follows:

90 (1) A part of a council meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:
(e) the acquisition, disposition or expropriation of land or improvements, if the council considers that disclosure could reasonably be expected to harm the interests of the municipality; and
(k) negotiations and related discussions respecting the proposed provision of a municipal 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

It was MOVED and SECONDED
That the Liquid Waste Committee recess its open meeting of March 12, 2025.

CARRIED

The meeting recessed at 9:03 am.

The meeting reconvened at 9:21 am with Mayor Little in attendance.

The order of the agenda was resumed with Item B1 before the committee.

B. ADOPTION OF THE MINUTES

1. January 15, 2025 Meeting Minutes

It was MOVED and SECONDED
That the Liquid Waste Committee adopt the minutes of its meeting held January 15, 2025 as circulated.

CARRIED

C. DELEGATIONS

No delegations.

D. INVITED PRESENTATIONS

No invited presentations.

E. REPORTS FROM COMMITTEE OR CHIEF ADMINISTRATIVE OFFICER

3. Award of RFP 24-123 Site Preparation, Installation, Tie-in Connections and Commissioning for the Annacis Island Wastewater Treatment Plant Hydrothermal Liquefaction (HTL) Demonstration Plant Contract

Report dated February 27, 2025 from Zeno Farinelli, Lead Senior Engineer, Liquid Waste Services, and George Kavouras, Director, Procurement, Procurement & Real Estate Services, seeking GVS&DD Board approval to award a contract, in the amount of up to $12,008,785.00 (exclusive of taxes) to Maple Reinders Constructors Ltd for the Site Preparation, Installation, Tie-in Connections and Commissioning for the Annacis Island Wastewater Treatment Plant Hydrothermal Liquefaction (HTL) Demonstration Plant.

Zeno Farinelli, and Lillian Zaremba, Program Manager, Policy Planning and Analysis, Liquid Waste Services, provided members with a presentation titled “Award of RFP 24-123 Site Preparation, Installation, Tie-in Connections and Commissioning for the Annacis Island Wastewater Treatment Plant Hydrothermal Liquefaction (HTL) Demonstration Plant Contract” highlighting that the change to biofuel is needed as the volume of biosolids will increase with upgrades secondary treatment.

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

a) approve the award of RFP 24-123 for Site Preparation, Installation, Tie-in Connections and Commissioning for the Annacis Island Wastewater Treatment Plant Hydrothermal Liquefaction (HTL) Demonstration Plant Contract, in the amount of up to $12,008,785.00 (exclusive of taxes) to Maple Reinders Constructors Ltd., subject to final review by the Commissioner; and
b) authorize the General Manager, Procurement and Real Estate to execute the required documentation once the General Manager, Procurement and Real Estate is satisfied that the award should proceed.

CARRIED

Note: Items 1 and 2 on the agenda were discussed together with a single motion passed.

1. 2024 "Wipe It, Green Bin It" Campaign Results

Report dated January 16, 2025 from Carol Nicolls, Communications Specialist, Corporate Communications, providing an update to the Liquid Waste Committee on the 2024 "Wipe It, Green Bin It" campaign to reduce the disposal of fats, oils, and grease in the sewer system.

2. 2024 "Our Ocean Thanks You" Campaign Results

Report dated January 16, 2025 from Carol Nicolls, Communications Specialist, Corporate Communications, providing an update to the Liquid Waste Committee on the 2024 "Our Ocean Thanks You" campaign to reduce microfibres generated through laundry.

Carol Nicolls, provided members with a presentation titled "2024 "Wipe It, Green Bin It" Campaign Results" highlighting the work needed to resolve fatberg issues, impact of news coverage of fatbergs in Richmond on awareness and that the 2025 campaign will be targeted at young adults. Carol Nicolls then provided members with a presentation titled "2024 "Our Ocean Thanks You" Campaign Results" highlighting the campaign goals, public response and that the 2025 campaign will targeted older parents.

The committee discussed while it is important to educate residents about the issues caused by grease, including dairy products in waste water, the majority of the issues are the result of industrial activity.

10:11 am Director Nakagawa left the meeting.

It was MOVED and SECONDED
That the Liquid Waste Committee request that the GVS&DD Board direct staff to report back on the Food Sector Grease Interceptor Regulatory Program.

CARRIED

It was MOVED and SECONDED
That the Liquid Waste Committee receive for information the reports dated January 16, 2025, titled "2024 "Wipe It, Green Bin It" Campaign Results" and "2024 'Our Ocean Thanks You' Campaign Results".

CARRIED

4. Award of RFP No. 24-469 - Construction of South Surrey Interceptor No. 2, Johnston Road Section, Phase IV – Junction Chamber and Tie-in Piping

Report dated February 20, 2025 from Joan Liu, Division Manager, Liquid Waste Services Collection Systems, and George Kavouras, Director, Procurement, Procurement & Real Estate Services, seeking GVS&DD Board approval to award a contract, in the amount of up to $ 22,030,278.90 (exclusive of taxes) to BelPacific Excavating and Shoring Limited Partnership for the Construction of South Surrey Interceptor No. 2, Johnston Road Section, Phase IV – Junction Chamber and Tie-in Piping.

Colin Meldrum, Director, Liquid Waste Services Engineering Design & Construction introduced the report noting that it was the final contract in a 30-year program to increase sewer capacity in Surrey. They noted that BelPacific Excavating and Shoring Limited Partnership was the only compliant bid because of the unique nature of the work.

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

a) approve the award of RFP 24-469 for Construction of South Surrey Interceptor No. 2, Johnston Road Section, Phase IV – Junction Chamber and Tie-in Piping in the amount of up to $22,030,278.90 (exclusive of taxes) to BelPacific Excavating and Shoring Limited Partnership, dba Bel Contracting, subject to final review by the Commissioner; and
b) authorize the General Manager, Procurement and Real Estate to execute the required documentation once the General Manager, Procurement and Real Estate is satisfied that the award should proceed.

CARRIED
Director Fergusion was absent for the vote

5. Appointment of Enforcement Officers

Report dated February 19, 2025 from Maari Hirvi Mayne, Program Manager, Enforcement and Regulation Liquid Waste, Environmental Regulation and Enforcement, requesting the GVS&DD Board, as a result of staffing changes appoint and rescind appointments of Metro Vancouver and City of Vancouver employees as Board-designated officers.

It was MOVED and SECONDED

That the GVS&DD Board:

a) pursuant to the *Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007* and the *Environmental Management Act*:
   i. rescind the appointment of former City of Vancouver employee Bonny Brokenshire as an officer; and
   ii. appoint Metro Vancouver employee Gabriel de Andrade Fazioni as an officer.

b) pursuant to section 28 of the *Offence Act* for the purposes of serving summons for alleged violations under the *Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw*
   i. rescind the appointment of former City of Vancouver employee Bonny Brokenshire as an officer.

CARRIED

Director Ferguson was absent for the vote

6. Manager's Report

Report dated February 27, 2025, providing the Liquid Waste Committee with an update to the Liquid Waste Committee on the completion of the Annacis Island Wastewater Treatment Plant New Outfall Project on budget, the 2024 Sustainable Communities Award for Metro Vancouver's Heat Recovery Policy, and the 2025 Inflow and Infiltration Communications Initiative.

It was MOVED and SECONDED

That the Liquid Waste Committee receive for information the report dated February 27, 2025 titled "Manager's Report".

CARRIED

F. INFORMATION ITEMS

No items presented.

G. OTHER BUSINESS

No items presented.

I. ADJOURNMENT

It was MOVED and SECONDED
That the Liquid Waste Committee adjourn its meeting of March 12, 2025.

CARRIED
(Time: 10.27 am)

Jacque Killawee,
Deputy Corporate Officer

Malcolm Brodie,
Chair

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Liquid Waste Committee

From: Maari Hirvi Mayne, Program Manager, Enforcement and Regulation Liquid Waste, Environmental Regulation and Enforcement

Date: May 5, 2025 Meeting Date: May 14, 2025

Subject: **Food Sector Grease Interceptor Bylaw Enforcement**

RECOMMENDATION

That the Liquid Waste Committee receive for information the report dated May 5, 2025, titled "Food Sector Grease Interceptor Bylaw Enforcement".

EXECUTIVE SUMMARY

Metro Vancouver Liquid Waste Regulatory Program officers promote compliance with, and enforce, the GVS&DD's six liquid waste bylaws to mitigate risk to the District, protect the environment and human health and safety, and recover costs from industrial users. A component of the regulatory program is enforcing the *Greater Vancouver Sewerage and Drainage District Food Sector Grease Interceptor Bylaw No. 365, 2023* which regulates discharges to sewer of fats, oils and grease from commercial food sector establishments (FSEs) by setting requirements for grease interceptors. The region's significant number of FSEs mean that inspections are prioritized based on municipal referrals of hot spots. In 2025, staff plan to inspect at least 350 FSEs, develop more stringent grease interceptor sizing requirements for some FSEs, continue to do outreach and education, and use Notices of Bylaw Violation where voluntary compliance efforts are not effective.

PURPOSE

To provide information about Metro Vancouver's activities related to liquid waste regulatory enforcement activities, and specifically those regarding fats, oils and grease discharges from commercial food sector establishments regulated through *Greater Vancouver Sewerage and Drainage District Food Sector Grease Interceptor Bylaw No. 365, 2023* (FSGI Bylaw).

BACKGROUND

At its March 12, 2025 meeting, the Liquid Waste Committee asked staff to report on enforcement efforts related to grease entering sewers from commercial food sector establishments. This report provides contextual information about Metro Vancouver's liquid waste regulatory program and FSGI Bylaw enforcement.

LIQUID WASTE REGULATORY PROGRAM

Metro Vancouver's Liquid Waste Regulatory Program supports the goals of the Integrated Liquid Waste and Resource Management Plan through regulation of the discharge of wastes to the region's sanitary sewer systems. The BC Environmental Management Act (Reference 1) authorizes the GVS&DD to regulate waste entering, directly or indirectly, "any sewer or drain connected to a sewerage facility operated by the district". Consequently, the GVS&DD has six liquid waste management bylaws (References 2 to 7) which mitigate risk to the District, protect the environment, human health and safety, and recover costs from industrial, and some commercial and institutional users.

Municipal Sewage Control Officers, appointed by the Board, are responsible for the administration of the GVS&DD liquid waste management bylaws within the boundaries of the GVS&DD. In the City of Vancouver, City staff administer these bylaws under a Memorandum of Understanding with Metro Vancouver. There are 11 Metro Vancouver officers and four City of Vancouver officers, whose primary roles are the regulation and enforcement of Metro Vancouver's liquid waste bylaws. Of these, approximately three full time equivalent officers are dedicated to FSGI Bylaw enforcement. Officers may enter property, inspect works, and obtain records and other information to promote compliance with the GVS&DD liquid waste management bylaws. Table 1 shows the types of dischargers regulated under the liquid waste management bylaws, their relative potential impact, and number of inspections conducted in 2024.

The enforcement team's main inspection focus is on permitted, high strength waste industrial dischargers, since these have the greatest potential impact to Metro Vancouver's wastewater treatment plants and regulatory obligations.

Type of Discharger	Potential Impact	Number of Dischargers	2024 Inspections
Permitted sites	High	269	230
Food sector establishments	Moderate	13,000 – 14,000	342
Trucked liquid waste	Low	10,000 homes 150 businesses	128
Fermentation operations	Low	124	88
Hospitals	Low	18	8
Sani-dumps	Low	11	11

Table 1 Regulated Liquid Waste Dischargers

FATS, OILS, AND GREASE AND THE FOOD SECTOR GREASE INTERCEPTOR BYLAW

The disposal of fats, oils, and grease (FOG) into the sewer system is an ongoing issue that costs the region over $3 million every year. FOG build-up in pipes and on equipment leads to increased operating and maintenance costs and reduced flow capacity in the sewer system. Metro Vancouver uses public outreach to reduce FOG from residential sources from going down drains, with the annual "Wipe It, Green Bin It" campaign and other education initiatives.

The biggest source of FOG within the region is commercial food sector establishments (FSEs). The FSGI Bylaw, first adopted in 2012 and amended in 2023, regulates the discharge of FOG from FSEs by setting requirements around grease interceptors (GIs). GIs are engineered grease collection devices connected to all grease-bearing plumbing fixtures within commercial kitchens (such as sinks), and designed to retain FOG and solids while allowing wastewater to pass through. To prevent excess FOG and solids from entering sewers, GIs must properly sized and regularly cleaned.

With 13,000 to 14,000 FSEs in the region and limited officer resources, inspections of FSEs are scheduled based on geographic hot spots of FOG accumulation within sewers and pump stations, identified to Metro Vancouver by municipal staff. Officers request maintenance records, and conduct in-person inspections of FSEs to look for undersized or nonexistent GIs, bypassed fixtures, or inadequate maintenance, all of which contribute to downstream FOG issues. Non-compliance is addressed primarily through education and written warnings.

Since the bylaw was enacted, Metro Vancouver officers have inspected approximately 1,900 restaurants, coffee shops, pubs, and other FSEs, with the annual rate of inspections having fluctuated depending on available resources and the COVID-19 pandemic.

Overall compliance challenges include:

- The significant number of FSEs in the region, with an increasing number of high grease producers
- A lack of awareness and education of FSGI Bylaw requirements, due to factors such as high ownership turnover within the restaurant sector and potential language barriers
- A lack of financial incentive, given typically low profit margins for FSEs

CONTINUOUS IMPROVEMENT INTIATIVES

Metro Vancouver officers will continue to inspect FSEs, prioritizing identified FOG hot spots based on municipal referrals, with a goal of conducting at least 350 inspections in 2025. To address very high grease producing FSEs, staff are developing more stringent GI sizing and maintenance requirements for FSEs where there is high likelihood of causing downstream FOG issues.

Officers will continue to promote awareness of the FSGI Bylaw and seek voluntary compliance, by using newly updated educational materials produced in multiple languages.

In 2024, Notices of Bylaw Violation with financial penalties became available as an enforcement tool, and will be considered when education and written warnings are not sufficient to encourage voluntary compliance.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The Liquid Waste Regulatory Program enforces liquid waste management bylaws which recover costs of wastewater treatment and the administration of the bylaws.

CONCLUSION

The Liquid Waste Regulatory Program's purposes are to protect the District's and its members' infrastructure, ensure that legal and regulatory obligations are met, protect the environment, public health and safety, and recover costs from industrial, and some commercial and institutional users. Officers will continue to enforce the FSGI Bylaw through inspections focused on municipal hot spots, promote awareness and seek voluntary compliance, and use NBVs if necessary.

ATTACHMENT

1. Presentation re: Food Sector Grease Interceptor Bylaw Enforcement, dated, April 17, 2025.

REFERENCES

1. *Environmental Management Act (SBC 2003, c 53).* Retrieved from: https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/03053_00. Last accessed 2025, April 17.
2. GVS&DD bylaw No. 299, 2007, *Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007* [consolidation] (25 May 2007). Retrieved from: https://metrovancouver.org/boards/Bylaws/GVSDD_Bylaw_299_Consolidated.pdf Last accessed 2025, April 17.
3. GVS&DD bylaw No. 365, 2023, *Greater Vancouver Sewerage and Drainage District Food Sector Grease Interceptor Bylaw No. 365, 2023* (29 September 2023) Retrieved from: https://metrovancouver.org/boards/Bylaws/GVSDD_Bylaw_365.pdf Last accessed 2025, April 17.
4. GVS&DD bylaw No. 365, 2023, *Greater Vancouver Sewerage and Drainage District Food Sector Grease Interceptor Bylaw No. 365, 2023* (29 September 2023) Retrieved from: https://metrovancouver.org/boards/Bylaws/GVSDD_Bylaw_294_Consolidated.pdf Last accessed 2025, April 17.
5. GVS&DD bylaw No. 319, 2018, *Greater Vancouver Sewerage and Drainage District Hospital Pollution Prevention Bylaw No. 319, 2018* [consolidation] (26 October 2018) Retrieved from: https://metrovancouver.org/boards/Bylaws/GVSDD_Bylaw_319_Consolidated.pdf Last accessed 2025, April 17.
6. GVS&DD bylaw No. 345, 2021, *Greater Vancouver Sewerage and Drainage District Trucked Liquid Waste Bylaw No. 345, 2021* [consolidation] (28 May 2021) Retrieved from: https://metrovancouver.org/boards/Bylaws/GVSDD_Bylaw_345_Consolidated.pdf Last accessed 2025, April 17.
7. GVS&DD bylaw No. 346, 2021, *Greater Vancouver Sewerage and Drainage District Sani-dump Bylaw No. 346, 2021* (28 May 2021) . Retrieved from: https://metrovancouver.org/boards/Bylaws/GVSDD_Bylaw_346.pdf Last accessed 2025, April 17.

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Food Sector Establishment Grease Interceptor

Food Sector Grease Interceptor Enforcement

METRO VANCOUVER'S REGULATORY ROLE

Maari Hirvi Mayne
Program Manager, Liquid Waste Regulation, Environmental Regulation & Enforcement

Liquid Waste Committee Meeting, May 15, 2025

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LIQUID WASTE REGULATION

- BC Environmental Management Act authorizes the GVS&DD to regulate waste entering sewers and sewerage facilities
- GVS&DD Sewer Use Bylaw and five sector specific liquid waste bylaws regulate liquid waste discharges

LIQUID WASTE

- 299 Sewer Use
- 365 Food Sector GI
- 294 Fermentation
- 319 Hospital P2
- 345 Trucked LW
- 346 Sani-dump

2

SEWER USE BYLAW 299, 2007

Purposes of Bylaw

1. Protect infrastructure; operate efficiently and cost-effectively
2. Promote beneficial use of biosolids
3. Protect public health, as well as the health and safety of municipal and MV sewer crews
4. Meet provincial regulatory obligations
5. Protect the environment
6. Charge user fees

REGULATED SITES BY THE NUMBERS

As of April 2, 2025

Type of Discharger	Potential Impact	Number of Sites	Inspections in 2024*
Permitted sites	High	269	230
Food sector establishments	Moderate	13,000 – 14,000	210
Trucked liquid waste	Low	10,000 homes 150 businesses	128
Fermentation operations	Low	124	85
Hospitals	Low	18	6
Sani-dumps	Low	11	11

* Metro Vancouver and City of Vancouver

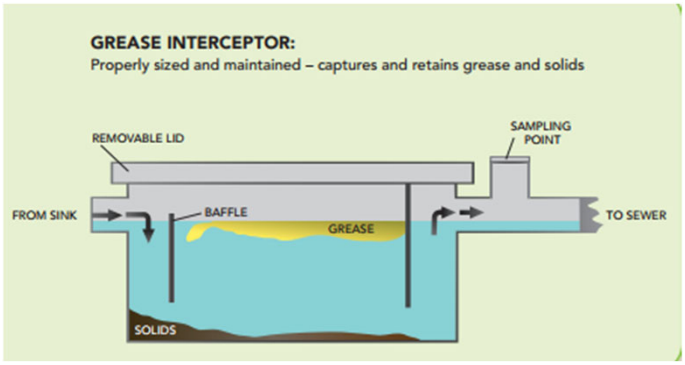
FSGI BYLAW

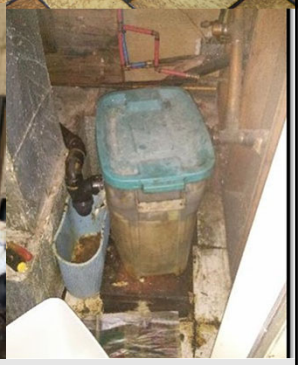
What it does

- First adopted in 2012, amended 2023
- Sets requirements around grease interceptors for Food Sector Establishments (FSEs)

5

WHAT IS A GREASE INTERCEPTOR?





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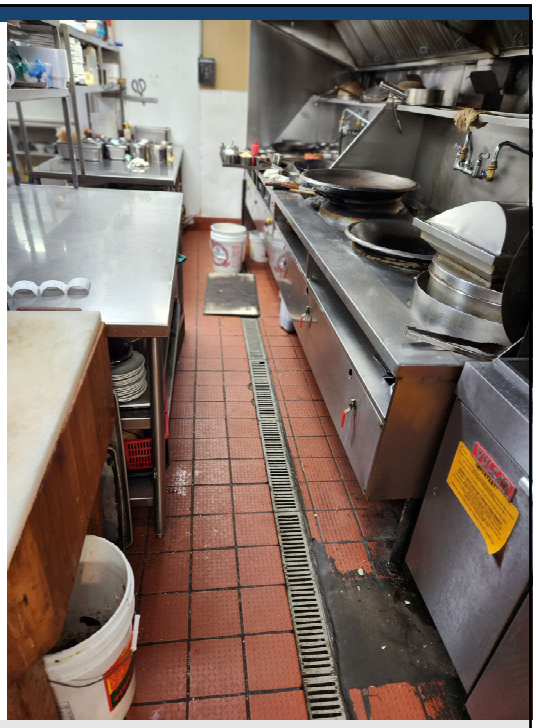
FSGI BYLAW ENFORCEMENT

- 3 officers for all FSEs in the region
- Inspections of hot spots identified by municipalities
- In-person inspection of kitchen and plumbing fixtures
- Common issues found:
  - Poor maintenance/cleaning of GI
  - Undersized or no GI



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CHALLENGES

FSGI Enforcement

- Too many FSEs in region for regular inspections
  - Increasing number of high grease dischargers
- Lack of awareness/education
  - High ownership turnover of FSEs
  - Language barriers
- Lack of financial incentive

8

NEXT STEPS

FSGI Enforcement

- 2025 goal – 350 inspections
- Continue to prioritize hot spots
- Develop more stringent requirements for high grease dischargers
- Outreach and education
- Use Notices of Bylaw Violation as a deterrent

Grease I

9

2024 Richmond FOG removal

Questions?

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Together we make our region strong

10

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Liquid Waste Committee

From: Lillian Zaremba, Program Manager, Liquid Waste Services

Date: April 14, 2025 Meeting Date: May 14, 2025

Subject: **2025 Update on Liquid Waste Sustainability Innovation Fund Projects**

RECOMMENDATION

That the GVS&DD Board receive for information the report dated April 14, 2025, titled "2025 Update on Liquid Waste Sustainability Innovation Fund Projects".

EXECUTIVE SUMMARY

This report provides an update on eight projects that were approved for funding under the Liquid Waste Sustainability Innovation Fund (SIF) that are currently in progress or have been completed or discontinued since the last update to the designated Standing Committee. Projects funded by SIF support regional sustainability and continuously improve service delivery by allowing Metro Vancouver to explore and implement innovative approaches and respond to emerging issues and evolving best practices. The projects outlined in this report advance these objectives through: improving the efficiency and resilience of infrastructure, enhancing resource recovery from wastewater, producing low-carbon fuels that reduce greenhouse gas emissions, and protecting the environment. The projects are:

- High Efficiency Aeration Demonstration (discontinued)
- Intelligent Water Systems – Making Use of Sensors and Big Data Analytics (complete)
- Hydrothermal Processing – Biofuel Demonstration Facility (in progress)
- Advanced Resource Recovery from Sludge – Industrial Research Chair (in progress)
- Multiphase Composite Coating for Concrete Sewers (in progress)
- Handheld Wastewater Microbial DNA Monitor (complete)
- Biorock – Innovative Building Material (in progress)
- Hydrogen System Integration at LIWWTP (in progress).

PURPOSE

To provide an update on projects funded under the Liquid Waste Sustainability Innovation Fund that are currently in progress or have been completed or discontinued since the last annual update.

BACKGROUND

The Sustainability Innovation Fund program (Reference 1) supports regional sustainability and drives continuous improvement in the delivery of Metro Vancouver services by reducing emissions, protecting the environment, and advancing resilience. The Regional District, Water, and Liquid Waste Sustainability Innovation Funds have been in place since October 29, 2004, when the GVRD, GVWD, and GVS&DD Boards, respectively, approved their creation. In 2014, policies to guide and manage the Sustainability Innovation Funds were adopted by the respective Boards, with amendments in 2016 and 2021. The Policies require that the designated Standing Committee be kept updated on the deliverables, outcomes, and measurable benefits of the projects that have received funding. Projects funded wholly or in part by the Sustainability Innovation Fund program have been undertaken by Metro Vancouver in coordination with project partners since 2015. At its February 21, 2025 meeting, the MVRD Board re-affirmed support for the Sustainability Innovation Fund program.

Annually, Metro Vancouver staff submit applications for project funding, which are approved by the respective Standing Committees and Boards. The amount dispersed from the Sustainability Innovation Funds in any year is at the discretion of the respective Boards and depends on the merit of proposals submitted. Additionally, many projects amplify the financial contributions from the Sustainability Innovation Fund by leveraging external funding through partnerships, such as with the region's academic institutions.

The Liquid Waste Committee is responsible for reviewing Liquid Waste Sustainability Innovation Fund applications that fall within the Terms of Reference of the Committee and for making recommendations to the GVS&DD Board, and also receives updates on in progress or recently completed projects. The GVS&DD Board is responsible for overseeing the Liquid Waste Sustainability Innovation Fund and for reviewing and approving funding for projects from the Liquid Waste function.

STATUS OF LIQUID WASTE SUSTAINABILITY INNOVATION PROJECTS – 2025 UPDATE

From 2015 to present, the Fund has made contributions to a total of 16 projects. Of these, 8 projects have been completed, 3 have been discontinued, and 5 are in progress.

This report provides an update on the eight Liquid Waste projects that are in progress or that have not yet been reported as complete or discontinued. Table 1 provides budgetary information and project status, and further details of each project can be found in Attachment 1.

Table 1. Summary of Liquid Waste Sustainability Innovation Fund Projects – 2025 Update

Project	Total Funding Approved	Estimated Spent (as of Mar. 31, 2025)	Status
2017 Approval Year			
High Efficiency Aeration Demonstration	$750,000	$467,200	Discontinued
2018 Approval Year			
Intelligent Water Systems – Making Use of Sensors and Big Data Analytics	$200,000	$184,600	**Complete**
Hydrothermal Processing – Biofuel Demonstration Facility	2018: $8,250,000 2021: $6,130,000	$14,380,000	In Progress
2019 Approval Year			
Advanced Resource Recovery from Sludge – Industrial Research Chair	$2,985,000	$1,602,300	In Progress
Multiphase Composite Coating for Concrete Sewers	$620,000	$294,700	In Progress
2020 Approval Year			
Handheld Wastewater Microbial DNA Monitor	$330,000	$292,900	**Complete**
2022 Approval Year			
Biorock – Innovative Building Material	$270,000	$0	In Progress
2023 Approval Year			
Hydrogen System Integration at LIWWTP	$625,000	$136,100	In Progress
TOTAL	$20,160,000	$17,360,000	

Several of the projects are pilots that bridge laboratory-scale research and commercial-scale implementation. Technologies that prove successful at the pilot stage could generate millions of dollars in revenue if implemented at full-scale, with a combined lifecycle benefit of over $80 million from selling green energy and BC Low Carbon Fuel Standard credits.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The projects summarized in this report received funding from the Liquid Waste Sustainability Innovation Fund as approved by the GVS&DD Board between 2017 and 2023. (No applications were submitted in 2024.) Disbursals of funds were made in accordance with the Policy that governs the use and management of the Fund. Table 1 above outlines the estimated amount spent to March 31, 2025 for each project.

As of December 31, 2024, the estimated reserve balance of the Liquid Waste Sustainability Innovation Fund was $8.1 million. Of this, approximately $2.5 million in Board-approved funding is committed to be spent on currently in-progress projects across Liquid Waste Services. Any unspent funds from completed or discontinued projects are maintained in the Liquid Waste Sustainability Innovation Fund reserve.

CONCLUSION

This report provides an update on eight projects funded under the Liquid Waste Sustainability Innovation Fund between 2017 and 2023 that are currently in progress or have been completed or discontinued since the last update to the designated Standing Committee. The results and findings from these projects will be used to drive continuous improvement in the delivery of Metro Vancouver's services.

ATTACHMENTS

1. "2025 Status Update on Current Liquid Waste Sustainability Innovation Fund Projects", dated April 9, 2025.
2. Presentation re: "2025 Update on Liquid Waste Sustainability Innovation Fund Projects".

REFERENCE

1. Metro Vancouver. (2025). *Sustainability Innovation Fund*. Retrieved from https://metrovancouver.org/about-us/sustainability-innovation-fund. Last accessed April 10, 2025.

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2025 Status Update on Current Liquid Waste Sustainability Innovation Fund Projects

2017 APPROVAL YEAR

High Efficiency Aeration Demonstration
Status: Discontinued
Years: 2017 – 2024

Overview
In wastewater treatment, aeration introduces air into wastewater to provide oxygen to microbes that degrade organic matter. Aeration is energy-intensive – it can consume more than one-half of the energy required by a wastewater treatment plant (WWTP). This project was intended to pilot test the Perlemax Fluidic Oscillator, a new device with the ability to improve aeration energy efficiency by 25%.

Project partners were the District of Columbia Water and Sewer Authority (DC Water), who contributed the use of a test tank at their Blue Plains Advanced Wastewater Treatment Plant, and the Water Research Foundation (WRF), who coordinated third-party validation by an independent panel of experts.

Outcomes to Date
- DC Water modified its aeration tank for testing the oscillator.
- The Perlemax Fluidic Oscillator was built, delivered and installed at DC Water's facility.
- Perlemax was unable to commission the system within a timeframe that met seasonal and budget constraints, so Metro Vancouver decided to terminate the project. No testing was completed.
- Staff have reviewed the conditions that led to the project's termination, with the intent of applying the lessons learned to ensure success of future projects.

2018 APPROVAL YEAR

Intelligent Water Systems – Making Use of Sensors and Big Data Analytics
Status: Complete
Years: 2018 – 2023

Overview
Utilities including Metro Vancouver and its member jurisdictions monitor and collect large amounts of data in their wastewater systems. As increasing numbers of less expensive sensors are deployed, the volume of data increases exponentially. The purpose of this project was to provide tools for utilities to manage this wave of "Big Data" to help run the wastewater system with more efficiency, reliability, and resilience.

The project partner was the Water Research Foundation (WRF), who retained a consultant to carry out the work.

Outcomes to Date

- The end product was the Intelligent Water Infrastructure Systems Engineering (iWISE) framework, which provides a step-wise approach to help utilities transform data into insights that drive decisions.
- Each of these steps can be implemented when a utility is ready in their journey to become a utility of the future: define and understand intelligent water systems; identify and categorize physical and digital systems; develop strategic and implementation plans; develop a data-driven decision support system; and develop an organizational support system.

Hydrothermal Processing – Biofuel Demonstration Facility
Status: In Progress
Years: 2018 –

Overview
Metro Vancouver is constructing the world's first continuous flow hydrothermal processing (HTP) demonstration facility using wastewater sludge as a feedstock, at Annacis Island Wastewater Treatment Plant (WWTP).

HTP is a new technology that solves two environmental challenges: managing increasing quantities of wastewater solids and reducing greenhouse gas (GHG) emissions. HTP uses heat and pressure to convert sludge into biocrude oil, which can then be further refined into low-carbon transportation fuels. Compared to traditional wastewater solids management, HTP offers several benefits: lower capital and operating costs, smaller footprint, lower lifecycle greenhouse gas emissions, access to a different market than biosolids, and destruction of compounds of environmental concern (CECs).

An additional $5 million in funding has been leveraged from project partner Parkland and the Province of BC for this project.

Outcomes to Date

- Completed detailed design of the hydrothermal processing unit and associated infrastructure to integrate it with the Annacis Island WWTP.
- Began fabrication of the hydrothermal processing unit and tendered the civil works.

Next Steps
A third-party operator will be procured. Construction will be completed in 2026 and the facility will operate until early 2028. Project partner Parkland will test and co-process the biocrude at its Burnaby refinery. The demonstration will allow Metro Vancouver to evaluate the long-term performance and business case of HTP before subsequent scale-up for permanent implementation at its WWTPs.

2019 APPROVAL YEAR

Advanced Resource Recovery from Sludge
Status: In Progress
Years: 2019 –

Overview
Advancing the recovery of resources from wastewater to produce value-added outputs for use by other industries can help build a stronger circular economy. The project goals are to (i) assess options for recycling the HTP aqueous effluent back to the WWTP, explore the potential for recovering nitrogen and phosphorus from HTP by-products, evaluate the destruction of CECs in HTP; and (ii) develop a bioreactor that can augment production of biomethane from sludge.

The project partners are UBC School of Engineering and the Natural Sciences and Engineering Research Council.

An additional $1.83 million in funding has been leveraged from external agencies for this project.

Outcomes to Date
(i)
- Tested several treatment processes for the HTP aqueous stream and identified several promising options, as well as their limitations.
- Investigated options to recover nutrients from HTP byproducts – namely ammonia from the aqueous stream and phosphorus from the solid precipitate – in forms that could be beneficially used as fertilizer.
- Explored the fate of CECs in HTP.
- Disseminated research results in eighteen journal articles and eleven conference presentations.

(ii)
- The UBC team's prototyping guided the transition of the bioreactor project from lab scale to pilot scale. An engineering consultant completed preliminary design for a pilot-scale bioreactor to be tested at Lulu Island WWTP.

Next Steps
(i) Research will be conducted on adding fats, oils, and grease (FOG) to the wastewater sludge feedstock for HTP. The results of UBC's research will inform the operation of the HTP demonstration facility at Annacis Island WWTP, as well as informing integration of HTP into WWTPs in future full-scale implementation. The research will also inform pathways for recovering nutrients from HTP by-products that can contribute to the business case for full-scale HTP.

(ii) The pilot-scale bioreactor will be constructed and the pilot test results will be evaluated to determine the increase in biomethane production. The business case will be updated to inform whether to proceed with full-scale implementation at a Metro Vancouver WWTP.

Multiphase Composite Coating (MCC) for Concrete Sewers
Status: In Progress
Years: 2019 –

Overview
This project is field testing and validating the performance of a new coating material developed by UBC with the potential to protect both new and existing concrete sewer pipes from biological corrosion. This new coating could dramatically extend the service life of sewer networks and avoid significant repair and replacement costs.

The project partners are UBC Department of Civil Engineering, Metro Testing & Engineering, and Avestec.

An additional $648,000 in funding has been leveraged from external agencies for this project.

Outcomes to Date
- Development and optimization of the coating is essentially complete, including reducing the carbon footprint, enhancing performance, and improving sprayability.
- Significant laboratory testing was completed by UBC on material characteristics that allow the coating to be sprayed effectively, increasing its potential for commercial viability.
- A field test of the coating on a Metro Vancouver sewer chamber improved the understanding of how various additives impact the coating durability.
- Design of the robotic spray system is expected to be completed in 2025. Design of the “crawler” – a vehicle to operate and transport the robotic sprayer – is complete.

Next Steps
Design and fabrication of the robotic spray system will be completed, followed by a trial of the system on a new pre-cast sewer pipe in 2026. Information gathered during trials will be used to enhance the system for field deployment.

2020 APPROVAL YEAR

Handheld Wastewater Microbial DNA Monitor
Status: Complete
Years: 2020 – 2024

Overview
The goal of this project is to adapt a DNA sequencer to test the microbes in wastewater samples taken from treatment processes, which will provide quantitative results to support existing visual assessments of microbes. Combined with artificial intelligence tools, this system could provide early warning of treatment process upsets, allowing time to take corrective action and prevent process failure, to improve efficiency, reliability and resilience of wastewater treatment.

The project partner is UBC Department of Civil Engineering.

Outcomes to Date

- UBC researchers developed a high-throughput approach to identify and quantify microbial communities, which was validated using samples collected from Annacis Island WWTP.
- DNA extraction and sequencing preparation was automated using robots.
- The team created a cloud-based platform for analyzing samples along with a species-level database of the microbial communities in Annacis Island WWTP, which were combined into an artificial intelligence platform.
- The digital tools developed in the project can be integrated with a commercially available portable DNA sequencing device to provide rapid analysis for wastewater process control.

2022 APPROVAL YEAR

Biorock – Innovative Building Material for Shoreline Protection, Carbon Sequestration, and Habitat Creation

Status: In Progress
Years: 2022 –

Overview

Biorock uses electric currents and naturally occurring ingredients in sea water to accumulate concrete-like material on a submerged metal frame, constructing underwater marine structures that grow and strengthen over time.

The purpose of this project is to explore the feasibility of Biorock for shore protection and habitat creation near our coastal infrastructure.

Outcomes to Date

- A UBC Sustainability Scholar completed research on living breakwater design, aquatic species and habitat needs. The end product was a series of conceptual designs with various features for increasing ecosystem diversity, density and resilience when using Biorock in local waters, which will be used to inform the design of a Biorock pilot.
- Procurement of consultants is in progress for two scopes, (i) coastal engineering for site assessment and preliminary structural design and (ii) electrical control design.

Next Steps

Consultants will confirm the feasibility and complete the design of a Biorock pilot including a cost estimate. A positive assessment will result in submission of a separate Sustainability Innovation Fund application for fabrication, installation, and monitoring of a Biorock pilot to demonstrate its performance in local waters.

2023 APPROVAL YEAR

Hydrogen System Integration at Lulu Island WWTP (Phase 1)
Status: In Progress
Years: 2023 –

Overview
The purpose of this project is to evaluate the technical feasibility of integrating a hydrogen system at the Lulu Island Wastewater Treatment Plant (WWTP). The system includes producing green hydrogen from wastewater by-products, injecting hydrogen into wastewater digestion processes to increase renewable natural gas (RNG), and potential sale of hydrogen to off-site users.

Outcomes to Date
- Developed conceptual designs for producing hydrogen from ammonia found in wastewater treatment by-products, evaluated options for hydrogen use, and evaluated the business case.
- A vendor conducted a trial using centrate from Lulu Island WWTP with their technology that successfully recovered ammonia and produced hydrogen. The results informed the business case.
- The evaluation concluded that use of hydrogen in heavy-duty trucking is preferred over injecting hydrogen into digesters to create RNG.

Next Steps
Consultants will complete project definition for a pilot test of the ammonia to hydrogen system, followed by detailed design.

Lulu Island Pilot Digestion Optimization Facility

Liquid Waste Sustainability Innovation Fund Projects

2025 UPDATE

Lillian Zaremba
Program Manager, Liquid Waste Services

Liquid Waste Committee Meeting – May 14, 2025
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THE SUSTAINABILITY INNOVATION FUNDS (SIF)

History

- 2004 - Reserve set up to fund projects “based on the principles of sustainability”
- 2014 - Related board policies adopted
- 2015 - Approval of project funding began

Circular Economy / Resource Recovery

Emissions Reduction

Environmental Protection

2

SIF OBJECTIVE

Support innovations in regional sustainability & drive continuous improvement in the delivery of Metro Vancouver services

- **Innovation:** new approaches in service delivery
- **Sustainability:** protecting the environment, reducing emissions advancing resilience
- **Continuous Improvement:** evolving best practices in service delivery

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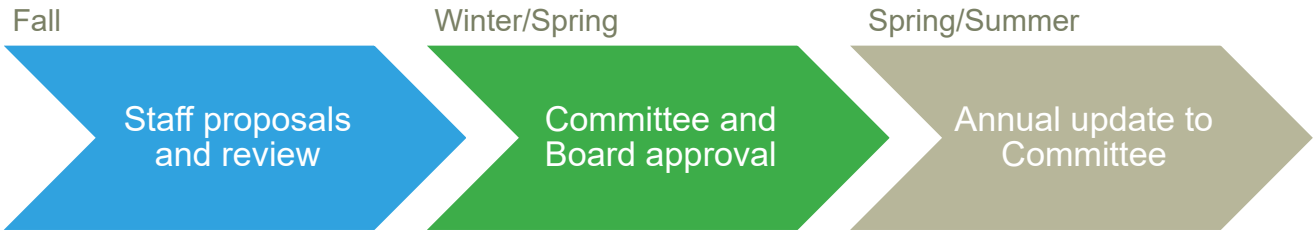
ANNUAL SIF PROCESS



1. Staff-level committees review proposals
2. Senior management provides internal approval
3. Standing Committee recommends proposals to Board
4. Board provides final approval
5. Staff provide update on previously funded projects

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2015-2024 SIF PROJECTS AND FUNDING

SIF	Approved Projects	Completed Projects	Approved Project Funding - End of 2024*	Remaining Fund Balance - End of 2024*
Liquid Waste	16	8	$23.1 M	$8.1 M
Regional District	54	28	$13.7 M	$10.7 M
Water Services	32	12	$11.0 M	$15.7 M

**Values are rounded estimates*

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6

INTELLIGENT WATER SYSTEMS

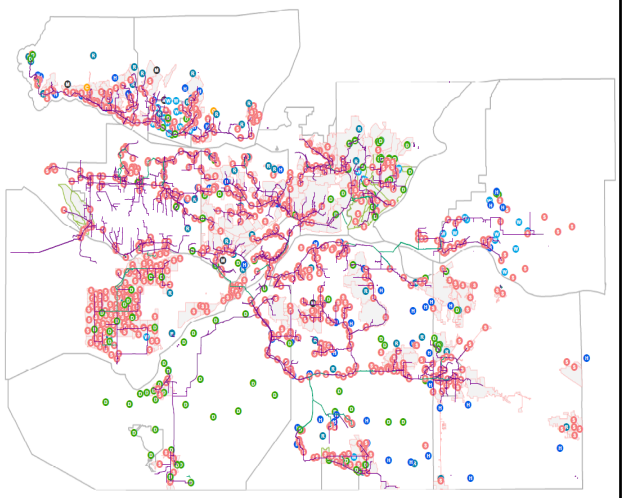
Complete

Purpose:

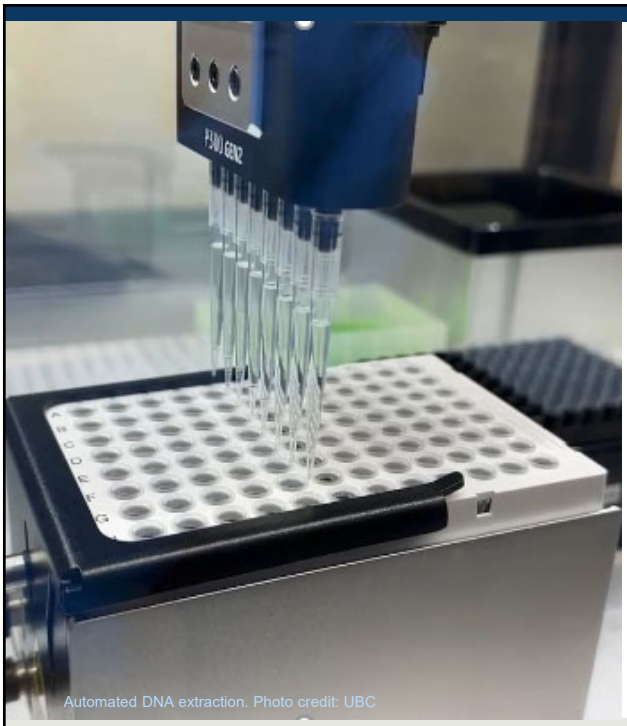
- Leverage big data and artificial intelligence for decision tools

Outcomes:

- Step-wise approach to use data to manage the wastewater collection system more efficiently



Sensor locations in Metro Vancouver sewers.



Automated DNA extraction. Photo credit: UBC

OTHER PROJECTS

Discontinued

High-efficiency aeration demonstration

Complete

Handheld wastewater microbial DNA monitor

9


Field trial of multiphase composite coating. Photo credit: UBC

MULTI-PHASE COMPOSITE COATING FOR SEWERS

In progress

Purpose:

- Protect concrete sewers from corrosion to extend their life

Progress:

- Field trial complete
- Improved spraying effectiveness
- Developed robotic sprayer

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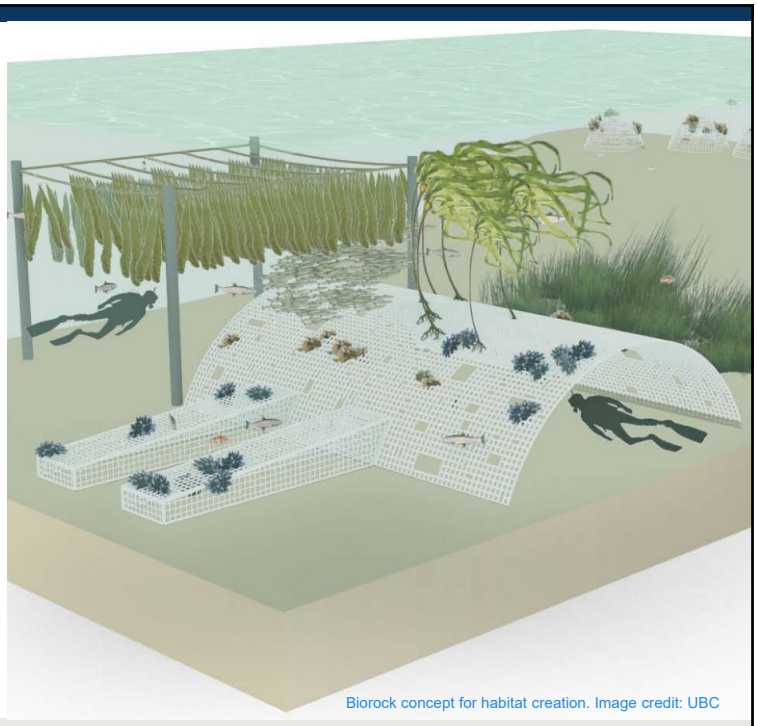
BIOROCK – INNOVATIVE BUILDING MATERIAL

In progress

Purpose:

- shoreline protection
- carbon sequestration
- habitat creation



Biorock concept for habitat creation. Image credit: UBC

HYDROTHERMAL PROCESSING

In progress

Purpose: Manage wastewater solids and create low-carbon transportation fuels

Progress: Fabrication underway

Wastewater sludge | Biocrude | Low-carbon fuel

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OTHER PROJECTS

In progress

Advanced resource recovery from sludge

In progress

Hydrogen system at Lulu Island Wastewater Treatment Plant

UBC Bioreactor Technology Group lab. Photo credit: UBC

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Rendering of robotic sprayer for Multi-Composite Coating. Image courtesy of UBC.

Thank you

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Liquid Waste Committee

From: Carol Nicolls, Communications Specialist, External Relations

Date: April 23, 2025 Meeting Date: May 14, 2025

Subject: **2025 Adult Toilet Training Campaign Launch**

RECOMMENDATION
That the Liquid Waste Committee receive for information the report dated April 23, 2025, titled "2025 Adult Toilet Training Campaign Launch."

EXECUTIVE SUMMARY
Flushing disposable wipes contributes to sewer clogs, overflows, and damaged equipment that costs the region over $2 million yearly. While there are other items that cause issues in our sewers, disposable wipes are the most problematic. To address this, Metro Vancouver is resurrecting a 2016 concept — Adult Toilet Training — that tackles wipes exclusively. Starting May 12, the campaign will target residents 18–34, as research shows they are the most likely to flush wipes. The concept delivers a singular message that asks residents to put wipes in the garbage while at the same time challenging the belief that there are "flushable" wipes. Campaign materials feature humorous bathroom tips, where one tip is always "never flush wipes." The paid media buy includes placements on social media, Netflix, radio, restobar washrooms, and elevator screens. Campaign effectiveness will be tracked via the number of deragging incidents within the wastewater system and a 2026 post-campaign survey.

PURPOSE
To update the Committee on the launch of the 2025 regional Adult Toilet Training campaign.

BACKGROUND
The incorrect disposal of wipes and other items into the sewer system costs the Metro Vancouver region over $2 million every year. Wipes do not break down quickly in the wastewater system and contribute to clogs, sewer overflows, and damaged equipment. Many wipes are labelled as "flushable", which causes confusion for product users and is a significant barrier to correct disposal.

The Unflushables campaign that ran from 2017 to 2024 addressed seven commonly flushed items; however, the most flushed item continues to be disposable wipes. Because of this, Metro Vancouver is reintroducing a former concept — Adult Toilet Training — that focuses exclusively on how to correctly dispose of wipes, asking residents to put wipes in the garbage and not down the toilet.

The Adult Toilet Training campaign is one of four source control behaviour change campaigns that — along with education, policy, and enforcement — support the objectives of the current and future Integrated Liquid Waste and Resource Management Plan.

2025 ADULT TOILET TRAINING CAMPAIGN

The 2025 regional Adult Toilet Training campaign will take place from May 12 to June 22. The campaign targets a younger demographic and focuses on disposable wipes. The campaign is an updated version of an Adult Toilet Training-themed regional campaign, which took place in 2016 and targeted disposable wipes.

Campaign Approach

Recent results show that younger residents, particularly men, are the most likely to flush wipes. Based on this research, this year's campaign targets residents aged 18 to 34, skewing towards men. This year's campaign has shifted to focus only on wipes, instead of the seven items featured in previous years of the Unflushables campaign. Focusing on one item allows the campaign to have a clear message that asks residents to take a single action: put wipes in the garbage, not the toilet. Education on other unflushable items will continue to be featured on the Metro Vancouver website.

Creative Materials

Creative materials follow the 2016 Adult Toilet Training concept and feature humorous bathroom tips for both men and women. The second tip is always "never flush wipes" (see Attachment 1).

Media Strategy

The paid media buy includes digital (YouTube, Facebook, Instagram, Netflix), radio, and out-of-home advertising in restobar washrooms and elevators in multi-family buildings. The media buy covers the region and will direct people to the campaign website: neverflushwipes.ca (live on May 9).

Engagement of Metro Vancouver Members

Campaign details and creative materials were shared with member jurisdictions' communications staff prior to the campaign's launch. All materials were made available for download on the Metro Vancouver website and custom, co-branded materials were created upon request.

Evaluation

Several measures are used to assess campaign effectiveness, including media buy results, surveys, and system impacts. Metro Vancouver continues to track the number of deragging incidents in its wastewater system and a post-campaign survey will take place in 2026.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The 2025 Adult Toilet Training campaign has a budget of $169,000 supported under the Liquid Waste Services Communications Program.

CONCLUSION

The flushing of disposable wipes into the wastewater system is an ongoing issue around the region and contributes to clogs, sewer overflows, and damaged equipment. The refreshed 2025 Adult Toilet Training campaign will launch on May 12, using updated creative materials that were first developed for the predecessor regional campaign in 2016. Based on research showing that younger residents are the most likely to flush wipes, the 2025 campaign targets residents 18–34 and focuses only on wipes, allowing the campaign to have a clear message that asks residents to take a single action (putting wipes in the garbage, not the toilet). To help assess campaign effectiveness, Metro Vancouver will continue tracking the number of deragging incidents within its wastewater system and will conduct a post-campaign survey in 2026.

ATTACHMENTS

1. Sample of Campaign Materials (Washroom Posters).

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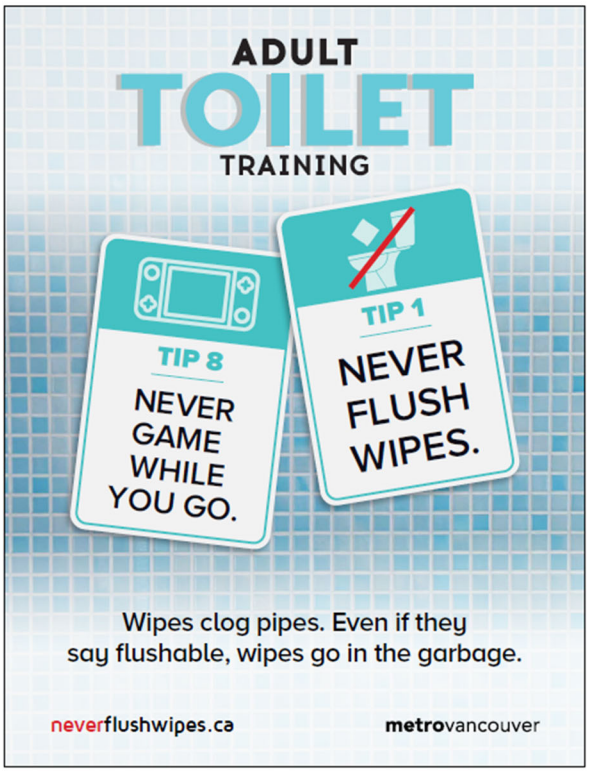
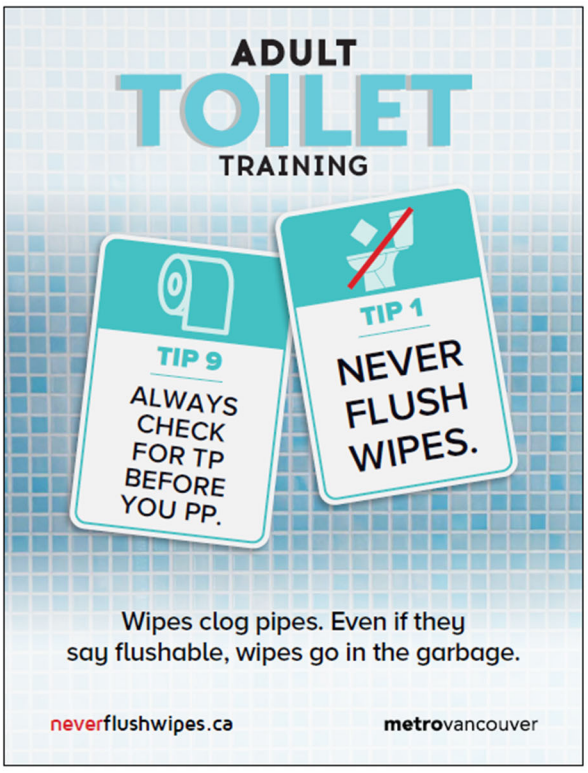
Sample of Campaign Materials (Washroom Posters)





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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Liquid Waste Committee

From: Peter Navratil, General Manager, Liquid Waste Services

Date: May 2, 2025 Meeting Date: May 14, 2025

Subject: **Manager's Report**

RECOMMENDATION
That the Liquid Waste Committee receive for information the report dated May 2, 2025 titled "Manager's Report".

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1. Update on the North Shore Wastewater Treatment Plant

Project activity at the North Shore Wastewater Treatment Plant ramped up over the first quarter of 2025, as PCL (the construction manager) expanded construction and mobilized additional staff, equipment, and materials to site.

On January 29, 2025, Metro Vancouver announced execution of the contract with PCL to complete construction of the new treatment plant. PCL was hired in 2022 for early construction works under a competitive bidding process, with the option to negotiate a contract for completing the full project. The total estimated contract price of $1.95 billion is within the approved budget for the program.

Since execution of the construction completion contract to the end of March 2025, PCL had placed over 3,500 cubic metres of concrete at the treatment plant site. Concrete pouring will remain a key focus of construction activity over the next year.

Overall activity and construction of other plant infrastructure is also increasing:

- As at the end of March 2025, PCL had installed over 110,000 kg (110 metric tonnes) of structural steel at the Operations and Maintenance building.
- As at the end of March 2025, 300 tradespeople are on site daily, as construction activity increases. At peak, the project will see around 750 trades working on site.
- All five of the site's tower cranes are now operational.

Monthly status reports of completed and upcoming activities are available on the project webpage, along with the opportunity to subscribe to a monthly e-newsletter.

2. FCM Resolution Update: Seeking Federal Support for a Federal Flushability Standard

In November 2024, the GVS&DD Board endorsed a resolution for submission to the Federation of Canadian Municipalities' (FCM) seeking Federal Support for the Development of a Flushability Standard (Reference 1). At its March 2025 Board meeting, the FCM Board of Directors considered and adopted this resolution with members voicing support for the urgency of the issue with flushable wipes and the significant costs associated with the damage caused to municipal sewer systems. This resolution was adopted as Category A – Concurrence. This category contains resolutions not addressed by FCM in the last three years that are the direct responsibility or concern of Canadian municipalities beyond a regional level and falls within the jurisdiction of the federal government. As this resolution has been adopted with concurrence, it is considered active FCM policy for three years and will guide future FCM policy positions. With this adopted resolution, FCM will send letters to the appropriate minister(s) after the current federal election cycle.

This resolution is in efforts to address the overarching issue of improper product labelling of disposable wipes and other products labelled as "flushable", but don't break down and cause serious, costly issues for wastewater systems. Metro Vancouver and its members spend over $2 million every year to address ongoing issues associated with wipes and other items. Metro Vancouver staff actively work with staff from utilities across Canada as members of the Canadian Water and Wastewater Association's Flushables Committee to advocate for federal regulations on flushable wipes. Until there is a regulated labelling standard, Metro Vancouver will continue to use annual public education campaigns to influence public behaviours towards better flushing practices.

3. 2024 Sustainable Communities Award

The Federation of Canadian Municipalities' Sustainable Communities Awards honour sustainability projects that demonstrate environmental responsibility and excellence while yielding social and economic benefits for their communities. Winning projects leverage current and advanced technologies as well as best practices in sustainability and can be replicated across the country to help achieve national climate goals and increase the quality-of-life of Canadians.

Metro Vancouver was selected as a winner for its energy recovery policy and liquid waste and Waste-to-Energy Facility district energy projects under the 2024 Community Energy category. Through the *Sewage and Waste: Heat Recovery Policy*, Metro Vancouver is taking advantage of an opportunity to reduce greenhouse gas emissions by recovering waste heat from liquid waste and solid waste systems. The policy has directly led to the initiation of several heat recovery projects, as well as the Waste-to-Energy Facility District Energy Project, which are an important part of the region's transition to clean, renewable sources of energy. The total emission reduction potential of liquid waste system projects and the Waste-to-Energy Facility district energy system projects approximately equates to the annual emissions of 70,000 passenger vehicles. Receiving this award shows how energy recovery and district energy projects can help turn resources that would otherwise go to waste into long-term, sustainable, cost-effective solutions.

4. GVS&DD 2024 Year End Financial Performance Results Review

At its meeting on April 17, 2025, the Finance Committee received for information the report dated April 15, 2025 titled "2024 Annual Financial Results and Audited Financial Statements" (Reference 2). The report provides the Financial Results for the year ended December 31, 2024.

5. Liquid Waste Committee 2025 Work Plan

The updated 2025 Work Plan (Attachment 1) shows the status of the Committee's key priorities for the year.

ATTACHMENT

1. Liquid Waste Committee 2025 Work Plan.

REFERENCES

1. Metro Vancouver. (2024) *Seeking Federal Support for the Development of a Flushability Standard.* Retrieved from https://metrovancouver.org/boards/GVSDD/SDD-2024-11-29-AGE.pdf. Last accessed November 14, 2024.
2. Metro Vancouver. (2025). *2024 Annual Financial Results and Audited Financial Statements.* Retrieved from https://metrovancouver.org/boards/GVSDD/SDD-2025-04-25-AGE.pdf. Last accessed April 15, 2025.

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Liquid Waste Committee 2025 Work Plan

Report Date: May 2, 2025

Priorities	
1st Quarter	**Status**
2024 "Wipe It, Green Bin It" Campaign Results	Complete
2024 "Our Ocean Thanks You" Campaign Results	Complete
Consideration of Updating Development Cost Charge Waivers to Include Inclusionary Housing Units	Complete
GVS&DD Trucked Liquid Waste Amending Bylaw	Complete
Major Project Updates (as applicable)	Complete
Municipal Requests for Sewerage Area Boundary Amendments (as applicable)	Complete
Contract Approvals as per the *Procurement and Asset Disposal Authority* Policy	Complete
Transaction Approvals as per the *Real Estate Authority* Policy	Complete
Utility Policies (as applicable)	Complete
2nd Quarter	
Iona Island Wastewater Treatment Plant Projects – Proposed Barge Berth	Cancelled
Liquid Waste Management Plan Phase 3 Engagement	In Progress
2024 Year-End Financial Results	Cancelled
Major Project Updates (as applicable)	In Progress
Municipal Requests for Sewerage Area Boundary Amendments (as applicable)	In Progress
Contract Approvals as per the *Procurement and Asset Disposal Authority* Policy	In Progress
Transaction Approvals as per the *Real Estate Authority* Policy	In Progress
Utility Policies (as applicable)	In Progress
3rd Quarter	
Draft Liquid Waste Services 2025 – 2029 Capital Plan	Pending
2024 GVS&DD Environmental Management and Quality Control Annual Report	Pending
Liquid Waste Management Plan Recommendation to the Province	Pending
Innovation Project Updates	Pending
Major Project Updates (as applicable)	Pending
Municipal Requests for Sewerage Area Boundary Amendments (as applicable)	Pending
Contract Approvals as per the *Procurement and Asset Disposal Authority* Policy	Pending
Transaction Approvals as per the *Real Estate Authority* Policy	Pending
Utility Policies (as applicable)	Pending
4th Quarter	
2026 – 2030 Five Year Financial Plan and 2025 Budget & Annual Rates	Pending
Major Project Updates (as applicable)	Pending
Drainage Area Policy	Pending
Municipal Requests for Sewerage Area Boundary Amendments (as applicable)	Pending
Contract Approvals as per the *Procurement and Asset Disposal Authority* Policy	Pending
Transaction Approvals as per the *Real Estate Authority* Policy	Pending
Utility Policies (as applicable)	Pending