

**METRO VANCOUVER REGIONAL DISTRICT  
LIQUID WASTE COMMITTEE**

**REGULAR MEETING**

**September 21, 2022**

**1:00 p.m.**

**Meeting conducted electronically and in-person pursuant to the Procedure Bylaw**

**28<sup>th</sup> Floor Boardroom, 4515 Central Boulevard, Burnaby, British Columbia**

**Webstream available at <http://www.metrovancouver.org>**

**A G E N D A<sup>1</sup>**

**1. ADOPTION OF THE AGENDA**

**1.1 September 21, 2022 Regular Meeting Agenda**

That the Liquid Waste Committee adopt the agenda for its regular meeting scheduled for September 21, 2022 as circulated.

**2. ADOPTION OF THE MINUTES**

**2.1 July 13, 2022 Regular Meeting Minutes**

That the Liquid Waste Committee adopt the minutes of its regular meeting held July 13, 2022 as circulated. *pg 3*

**3. DELEGATIONS**

**4. INVITED PRESENTATIONS**

**5. REPORTS FROM COMMITTEE OR STAFF**

**5.1 Sewage and Waste Heat Recovery Bylaw No. 357, 2022**

That the GVS&DD Board:

- a) approve the proposed Greater Vancouver Sewerage and Drainage District Sewage and Waste Heat Recovery Bylaw No. 357, 2022, as presented in the report dated September 7, 2022, titled "Sewage and Waste Heat Recovery Bylaw No. 357, 2022";
- b) give first, second and third reading to Greater Vancouver Sewerage and Drainage District Sewage and Waste Heat Recovery Bylaw No. 357, 2022; and
- c) pass and finally adopt Greater Vancouver Sewerage and Drainage District Sewage and Waste Heat Recovery Bylaw No. 357, 2022. *pg 8*

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<sup>1</sup> Note: Recommendation is shown under each item, where applicable.

**5.2 2022 Unflushables Campaign Results**

pg 13

That the Liquid Waste Committee receive for information the report dated July 26, 2022, titled "2022 Unflushables Campaign Results".

**5.3 Manager's Report**

pg 18

That the Liquid Waste Committee receive for information the report dated September 7, 2022 titled "Manager's Report".

**6. INFORMATION ITEMS**

**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.*

That the Liquid Waste Committee close its regular meeting scheduled for September 21, 2022 pursuant to the *Community Charter* provisions, Section 90 (1) (e) 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:*

*(e) the acquisition, disposition or expropriation of land or improvements, if the board or committee considers that disclosure could reasonably be expected to harm the interests of the [sewerage and drainage] district."*

**10. ADJOURNMENT/CONCLUSION**

That the Liquid Waste Committee adjourn/conclude its regular meeting of September 21, 2022.

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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 Wednesday, July 13, 2022 in the 28<sup>th</sup> Floor Boardroom, 4515 Central Boulevard, Burnaby, British Columbia.

**MEMBERS PRESENT:**

Chair, Mayor Richard Stewart, Coquitlam  
 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  
 Morgan Mackenzie, Legislative Services Coordinator, Board and Information Services

**1. ADOPTION OF THE AGENDA**

**1.1 July 13, 2022 Regular Meeting Agenda**

**It was MOVED and SECONDED**

That the Liquid Waste Committee adopt the agenda for its regular meeting scheduled for July 13, 2022 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 June 8, 2022 Regular Meeting Minutes**

**It was MOVED and SECONDED**

That the Liquid Waste Committee adopt the minutes of its regular meeting held June 8, 2022 as circulated.

**CARRIED**

**3. DELEGATIONS**

No items presented.

**4. INVITED PRESENTATIONS**

No items presented.

**5. REPORTS FROM COMMITTEE OR STAFF**

**5.1 Draft Liquid Waste 2023 – 2027 Capital Plan**

Report dated July 5, 2022, from Peter Navratil, General Manager, Liquid Waste Services, providing the Liquid Waste Committee with the draft Liquid Waste 2023–2027 Capital Plan for comments.

Members were provided with a presentation on the draft Liquid Waste 2023–2027 Capital Plan highlighting the capital plan drivers, the capital plan expenditures, the proposed capital plan changes and the next steps.

Presentation material titled “Draft Liquid Waste 2023-2027 Capital Plan” is retained with the July 13, 2022 Liquid Waste Committee agenda.

**It was MOVED and SECONDED**

That the Liquid Waste Committee receive for information the report dated July 5, 2022, titled “Draft Liquid Waste 2023–2027 Capital Plan”.

**CARRIED**

**5.2 Project Delivery Capital Portfolio Update**

Report dated June 28, 2022 from Cheryl Nelms, General Manager, Project Delivery, providing the Liquid Waste Committee with an update on the progress of major capital projects being delivered by the Project Delivery Department.

**It was MOVED and SECONDED**

That the Liquid Waste Committee receive for information the report dated June 28, 2022 titled “Project Delivery Capital Portfolio Update”.

**CARRIED**

### 5.3 Sewage and Waste: Heat Recovery Policy

Report dated July 5, 2022, from Jeff Carmichael, Division Manager, Business Development, Liquid Waste Services, and Sarah Wellman, Senior Engineer, Solid Waste Operations, Solid Waste Services, presenting the GVS&DD Board with a proposed Sewage and Waste: Heat Recovery Policy for consideration.

Members were provided with a presentation on the Heat Recovery Policy, highlighting the purpose of the policy, the recovery opportunities, the policy updates and the next steps.

Discussion ensued regarding the allocation of green house gas credits.

Presentation material titled "Sewage and Waste: Heat Recovery Policy" is retained with the July 13, 2022 Liquid Waste Committee agenda.

#### **It was MOVED and SECONDED**

That the GVS&DD Board approve the proposed *Sewage and Waste: Heat Recovery Policy*, as presented in the report dated July 5, 2022, titled "Sewage and Waste: Heat Recovery Policy".

**CARRIED**

### 5.4 Proposed Capital Investment for the Surrey City Energy Sewer Heat Recovery Project

Report dated June 28, 2022, from Jeff Carmichael, Division Manager, Business Development, Liquid Waste Services, providing the GVS&DD Board with a recommendation to direct staff to negotiate a contract with the City of Surrey for the Surrey City Centre Sewer Heat Recovery project, which will recover heat from the GVS&DD North Surrey Interceptor and make it available to the City of Surrey's District energy system, and authorizing expenditures up to \$19 million as endorsed in the 2022 to 2026 capital plan.

Members were provided with a presentation on the Surrey Heat Recovery project, highlighting the opportunity to act on climate change and the sewer heat potential within the region.

Presentation material titled "Proposed Capital Investment: Surrey City Centre Sewer Heat Recovery Project" is retained with the July 13, 2022 Liquid Waste Committee agenda.

**It was MOVED and SECONDED**

That the GVS&DD Board:

- a) direct staff to enter into contract negotiations with the City of Surrey for the Surrey City Centre Sewer Heat Recovery project, as presented in the report dated June 28, 2022, titled "Proposed Capital Investment for the Surrey City Centre Sewer Heat Recovery Project"; and
- b) authorize expenditures up to \$19 million as endorsed in the 2022 to 2026 capital plan.

**CARRIED**

**5.5 Climate and Seismic Resilience Planning at Iona Island**

Report dated June 28, 2022, from Nelson Szeto, Acting Director, Major Projects, Project Delivery, providing the Liquid Waste Committee with additional details on resiliency measures that are part of the Iona Island Wastewater Treatment Plant projects to prepare Iona Island, including Iona Beach Regional Park , for climate change and seismic impacts.

**It was MOVED and SECONDED**

That the Liquid Waste Committee receive for information the report dated June 28, 2022, titled "Climate and Seismic Resilience Planning at Iona Island".

**CARRIED**

**5.6 Award of a Contract Resulting from Request for Proposal No. 22-006: Construction of Gilbert Trunk Sewer No.2 Gilbert Road South Section**

Report dated June 28, 2022, from Roy Moulder, Director Procurement, Procurement and Real Estate Services, and Joan Liu, Division Manager, Collection Systems, Engineering Design and Construction, Liquid Waste Services, advising the GVS&DD Board of the results of Request for Proposal (RFP) No. 22-006: Gilbert Trunk Sewer No.2 Gilbert Road South Section and to recommend award of the contract in the amount of up to \$39,856,650 (exclusive of taxes) to Jacob Brothers Construction Inc. (Jacob Brothers).

**It was MOVED and SECONDED**

That the GVS&DD Board:

- a) approve award of a contract in the amount of up to \$39,856,650 (exclusive of taxes) to Jacob Brothers Construction Inc., resulting from Request for Proposal No. 22-006: Construction of Gilbert Trunk Sewer No.2 Gilbert Road South Section, 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 award should proceed.

**CARRIED**

**5.7 Manager's Report**

Report dated June 27, 2022, from Peter Navratil, General Manager, Liquid Waste Services, providing the Liquid Waste Committee with updates on the North Shore Wastewater Treatment Plant, the Liquid Waste Services Capital Program Expenditures, the Metro Vancouver/UBC Collaborative Research Project Highlighted in EGBC Magazine and the Liquid Waste Committee 2022 Work Plan.

**It was MOVED and SECONDED**

That the Liquid Waste Committee receive for information the report dated June 27, 2022 titled "Manager's Report".

**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 Liquid Waste Committee conclude its regular meeting of July 13, 2022.

**CARRIED**

(Time: 2:20 p.m.)

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Morgan Mackenzie,  
Legislative Services Coordinator

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Richard Stewart, Chair

53959103 FINAL

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To: Liquid Waste Committee

From: Jeff Carmichael, Division Manager, Liquid Waste Services

Date: September 7, 2022 Meeting Date: September 21, 2022

Subject: **Sewage and Waste Heat Recovery Bylaw No. 357, 2022**

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### RECOMMENDATION

That the GVS&DD Board:

- a) approve the proposed Greater Vancouver Sewerage and Drainage District Sewage and Waste Heat Recovery Bylaw No. 357, 2022, as presented in the report dated September 7, 2022, titled “Sewage and Waste Heat Recovery Bylaw No. 357, 2022”;
- b) give first, second and third reading to Greater Vancouver Sewerage and Drainage District Sewage and Waste Heat Recovery Bylaw No. 357, 2022; and
- c) pass and finally adopt Greater Vancouver Sewerage and Drainage District Sewage and Waste Heat Recovery Bylaw No. 357, 2022.

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### EXECUTIVE SUMMARY

On July 29, 2022 the GVS&DD Board approved the *Sewage and Waste Heat Recovery Policy*, which enables and provides guidance for heat recovery projects. Staff recommend that a supporting bylaw be enacted, in order to reinforce GVS&DD’s authority in this regard, utilizing all tools allowed under the authority of the *GVS&DD Act*. Metro Vancouver has the opportunity to reduce greenhouse gas emissions by enabling sewer and waste heat recovery projects that provide renewable, fossil fuel-free heat to residents and businesses in the region. There is enough excess heat in the liquid waste collection system to heat 100,000 homes throughout the region, and enough heat available from the Waste-to-Energy Facility to provide for another 30,000 homes. Projects are underway and more projects of this nature are under consideration.

### PURPOSE

To seek GVS&DD Board approval of a proposed Sewage and Waste Heat Recovery Bylaw No. 357, 2022 to support sewer and waste heat recovery projects.

### BACKGROUND

The MVRD and GVS&DD Boards have established several policies and frameworks establishing their intent to address climate change and to encourage resource recovery.

The *Integrated Liquid Waste and Resource Management Plan* (Reference 1) identifies the strategic goal to “use waste as a resource”. On June 23, 2017, the MVRD Board approved a *Carbon Price Policy* (Reference 2) for Metro Vancouver that established a value for GHG emission reductions of \$150/tonne CO<sub>2</sub>e. On July 26, 2019, the MVRD Board approved the *Climate 2050 Strategic Framework* (Reference 3), which targets 45% reduction in GHG emission by 2030 and a climate neutral region by 2050. The *Sewage and Waste Heat Recovery Policy*, which superseded the *Liquid Waste Heat Recovery Policy* (Reference 4), was approved by GVS&DD Board on July 29, 2022.



Agreements are in place to provide heat recovered from treated sewage at the North Shore Wastewater Treatment Plant to Lonsdale Energy Corporation, and to provide heat recovered from the Waste-to-Energy Facility energy to the River District Energy development. A capital contribution toward the Sapperton District sewer heat project has been authorized by the GVS&DD Board. Several additional sewer heat recovery projects are under development or assessment.

#### **RATIONALE AND SUPPORT FOR BYLAW**

Sewage and waste heat recovery is considered to be within the scope of the *GVS&DD Act* that governs such projects and expenditures. Establishment of a supporting bylaw will reinforce GVS&DD's authority in this regard, utilizing all tools allowed under the authority of the *GVS&DD Act*.

Section 6(1) of the *GVS&DD Act*, the primary provision setting out GVS&DD's statutory purpose, incorporates by express reference a report known as the Rawn Report. The Rawn Report expressly references salvaging and recovering certain utilizable by-products from the treatment of sewage, such as reclaimed water for irrigation, digested sludge for fertilizer, and biogas for combustion as source of heat and power in internal combustion engines. While there is no express reference in the Rawn Report to salvaging heat from sewage for use as a source of heat or power, it does expressly contemplate future advances in technology, and the power to undertake sewer heat recovery projects can be reasonably and fairly implied.

Notwithstanding this, because Section 6(2) of the *GVS&DD Act* expressly contemplates bylaw sanction for any work not included in the Rawn Report, introducing this bylaw would reinforce and clarify GVS&DD's authority to undertake sewer heat recovery projects.

Sewer heat recovery also aligns directly with strategic guidance provided by the *Integrated Liquid Waste and Resource Recovery Plan*, which includes the goal of using liquid waste as a resource.

Section 7A of the *GVS&DD Act* adds the disposal of all types of waste to the objects of GVS&DD and incorporates by express reference a report known as the Bunnell Report. Because this report identifies that it may be possible in the future for state-of-the-art waste disposal incinerators to be financially dependent on revenue generated by energy sales, the power to undertake waste heat recovery projects can be reasonably and fairly implied. Notwithstanding this, because Section 7A(2) of the *GVS&DD Act* expressly contemplates bylaw sanction for any work not included in the Bunnell Report, introducing this bylaw would reinforce and clarify GVS&DD's authority to undertake waste heat recovery projects.

Waste heat recovery also aligns directly with strategic guidance provided by the *Integrated Solid Waste and Resource Management Plan*, which includes the goal of recovering energy from the waste stream after material recycling.

## **ALTERNATIVES**

1. That the GVS&DD Board:
  - a) approve the proposed Greater Vancouver Sewerage and Drainage District Sewage and Waste Heat Recovery Bylaw No. 357, 2022, as presented in the report dated September 7, 2022, titled “Sewage and Waste Heat Recovery Bylaw No. 357, 2022”;
  - b) give first, second and third reading to Greater Vancouver Sewerage and Drainage District Sewage and Waste Heat Recovery Bylaw No. 357, 2022; and
  - c) pass and finally adopt Greater Vancouver Sewerage and Drainage District Sewage and Waste Heat Recovery Bylaw No. 357, 2022.
  
2. That the GVS&DD Board receive for information the report dated September 7, 2022 titled “Sewage and Waste Heat Recovery Bylaw No. 357, 2022” and provide alternative direction to staff.

## **FINANCIAL IMPLICATIONS**

There are no direct financial implications of establishing the bylaw. Any and all projects that seek GVS&DD capital investment will continue to be brought to the GVS&DD Board for consideration.

## **CONCLUSION**

Metro Vancouver’s *Climate 2050* strategy includes targets for regional GHG reductions of 45% by 2030 compared to 2010 levels, and a carbon neutral region by 2050. Metro Vancouver has the potential and opportunity to reduce GHG emissions through capital funding for projects that recover energy from liquid and solid waste systems for building heat and hot water to offset fossil fuels.

Staff recommend that a supporting bylaw be enacted, in order to reinforce and clarify GVS&DD’s authority to undertake sewage and waste heat recovery activities, utilizing all tools allowed under the authority of the *GVS&DD Act*.

Staff recommend Alternative 1.

## **Attachment**

Sewage and Waste Heat Recovery Bylaw No. 357, 2022

## **References**

1. [Integrated Liquid Waste and Resource Management Plan](#)
2. [Carbon Price Policy](#)
3. [Climate 2050 Strategic Framework](#)
4. [Liquid Waste Heat Recovery Policy](#)

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT  
BYLAW NO. 357, 2022  
A Bylaw to Authorize Heat Recovery from Sewage and Waste

WHEREAS:

- A. Pursuant to the *Greater Vancouver Sewerage and Drainage District Act* (the “**Act**”) the objects of the Greater Vancouver Sewerage and Drainage District (the “**Corporation**”) include the construction, maintenance, operation, and administration of major sewerage and drainage facilities, and facilities for the disposal of all types of waste;
- B. Pursuant to the Corporation’s approved *Integrated Liquid Waste and Resource Management Plan* and *Integrated Solid Waste and Resource Management Plan*, the Corporation seeks to recover heat energy as a resource from sewage and waste;
- C. The reports referred to in Section 6(1) and Section 7A(1) of the Act (known generally as the Rawn Report and Bunnell Report, respectively) include recovery of some utilizable by-products from the treatment of sewage and waste disposal, but do not expressly include heat recovery from sewage and waste;
- D. The Act empowers the Corporation to perform work requisite to its function but not included in the reports referred to in Section 6(1) and Section 7A(1) of the Act, but only with the sanction of a bylaw of the Board of the Corporation (the “**Board**”) passed by a majority of not less than 2/3 of the votes cast; and
- E. The Board wishes to authorize the Corporation to perform sewage and waste heat recovery work.

**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 Sewage and Waste Heat Recovery Bylaw No. 357, 2022”.

**Definitions and Interpretation**

- 2. In this bylaw:

“**Act**” means *Greater Vancouver Sewerage and Drainage District Act*, SBC 1956, c 59;

“**Board**” means the Administration Board of the Corporation;

“**Corporation**” means Greater Vancouver Sewerage and Drainage District;

“**Facilities**” has the meaning given in the Act; and

“waste” has the meaning given in the Act.

**Heat Recovery from Sewage and Waste**

3. The Corporation is hereby authorized to recover heat energy from sewage and waste in the Facilities, and to undertake the construction, maintenance, operation, and administration of facilities for the recovery, generation, storage, transmission and distribution of heat energy from sewage and waste, subject to the limitations set out in the *Procurement and Real Property Contracting Authority Policy* adopted by the Board and as may be amended or replaced from time to time.

**Severance**

4. If any provision of this bylaw is for any reason whatsoever held to be invalid in whole or in part by a decision of a court of competent jurisdiction, the remainder of this bylaw or the remainder of a provision determined to be invalid in part shall remain in full force and effect and its validity shall not be affected by the decision.

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

Passed and finally adopted this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

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Sav Dhaliwal, Chair

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Chris Plagnol, Corporate Officer

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To: Liquid Waste Committee

From: Larina Lopez, Division Manager, Corporate Communications  
Carol Nicolls, Communications Specialist, Corporate Communications

Date: July 26, 2022 Meeting Date: September 21, 2022

Subject: **2022 Unflushables Campaign Results**

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### **RECOMMENDATION**

That the Liquid Waste Committee receive for information the report dated July 26, 2022, titled “2022 Unflushables Campaign Results”.

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### **EXECUTIVE SUMMARY**

The 2022 Unflushables campaign ran from April 4 to June 12. The campaign’s objective is to reduce the disposal of problem items into the wastewater system. The campaign targets seven key items, with extra focus on wipes and medications, and is aimed at adults aged 25 to 54. The media strategy included social media, television, radio, Google Search, and placements in elevators, restobars, and on bus sides. The campaign performed well, generating 27 million impressions, 2.3 million video views, 648 engagements, 6,948 website visits and reaching 800,000 people. The number of de-ragging incidents has generally dropped since 2017, from 121 to 37 in 2021, but are projected to increase to 60 in 2022. It can be difficult to attribute annual fluctuations to a specific cause. Metro Vancouver continues to work with the Health Products Stewardship Association to leverage joint opportunities to promote the medications take-back program. The campaign will run again in 2023.

### **PURPOSE**

To update the Committee on the results of the 2022 regional Unflushables campaign.

### **BACKGROUND**

The incorrect disposal of wipes and other items into the sewer system costs the region at least \$2 million every year. The Unflushables campaign, now in its sixth year, asks residents to correctly dispose of seven priority items that cause problems when put into the wastewater system. The campaign supports the source control objectives of the Integrated Liquid Waste and Resource Management Plan. This report provides an update on the results of the 2022 campaign as identified in the 2022 Liquid Waste Committee Work Plan.

### **2022 REGIONAL UNFLUSHABLES CAMPAIGN**

The 2022 Unflushables campaign was in market from April 4 to June 12. The campaign asked residents to correctly dispose of seven items that should not be flushed: wipes, paper towels, floss, hair, condoms, tampons and applicators, and medications. Medications are difficult for wastewater treatment plants to fully remove and can end up in the environment, while the other items contribute to sewer clogs and overflows. Residents were asked to return medications to a pharmacy and put the other items in the garbage.

## Media Strategy

The media strategy targeted adults 25–54, skewing slightly towards women as the main purchasers of many of the products addressed in the campaign, and putting extra focus on wipes and medications. The media buy leveraged both broad and targeted tactics and included digital (YouTube, Facebook, Instagram, TikTok, Google Search), broadcast (geo-targeted television PSA, radio, and out-of-home advertising on bus sides, elevator screens in multi-family buildings and screens in restobars). All the placements directed to the campaign website.

## Engagement of Metro Vancouver Members

Campaign details and creative materials were shared with members' communication 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. The media buy included spots in all member jurisdictions, ensuring that the campaign ads appeared across the region. Some members shared the campaign on their social media platforms or at events. Campaign creative was also used by one city outside of the region.

## Results

### Media Performance

- The campaign delivered almost 27 million impressions, which is significantly higher than last year. This increase was likely generated by a larger amount of out-of-home placements.
- Broad, traditional tactics delivered the majority of impressions, with just under 17 million impressions across advertising on bus sides, radio, television, and elevator and restobar screens. The television PSA aired 1,812 times.
- Targeted digital tactics delivered 7.7 million impressions across social media, YouTube, and Google Search, with a reach of almost 800,000.
- There were just under 2.3 million video views on social media. YouTube view rates increased by 18% over 2021, showing that the shorter, refreshed content resonated with the target audience.
- Radio received 1.8 million impressions (441 spots). An estimated 355,000 people heard the Unflushables quiz ads, which aired on two radio stations.

### Social Media

- Social media placements reached almost 800,000 people and generated 648 engagements (likes, comments and shares).

### Website Traffic

- Over the campaign period, there were 6,948 page views, which is 101 per day. This is slightly lower than previous years, likely because more elements of this year's media buy—particularly YouTube and out-of-home placements—were more oriented towards awareness than driving traffic to the website.
- Of the many channels used, TikTok, Facebook, and Google Search were among the top channels that brought people to the website.

### Impacts of Wipes and other Unflushable Items on the Wastewater System

As shown in Table 1 below, Metro Vancouver continues to track the number of pump station clogs that require de-ragging by operations staff. These records show that the long-term trend in the number of re-ragging events at Metro Vancouver pump stations has generally been downwards. However, there are fluctuations in the number of events from time to time that cannot be readily explained. A number of factors contribute to clogs, including unflushable items and grease, making it difficult to measure the specific impact of unflushable items on the wastewater system. The number of clogs should be considered as only one of the indicators used to assess campaign effectiveness.

*Table 1. De-ragging Events in Metro Vancouver Pump Stations*

Year	Events
2016	53
2017	121
2018	58
2019	34
2020	35
2021	37
2022	34 as of June 30; 60 projected to year end

Metro Vancouver staff continue to work with member jurisdictions to track the collective impacts of wipes and other unflushable items, including clogs, damaged equipment, impacts of sewer overflows and the associated maintenance costs of these impacts. There are also ongoing efforts to collaborate through the Canadian Water and Wastewater Association to develop initiatives to further prevent improper disposal of unflushable items into wastewater systems. Metro Vancouver is also collaborating with the Health Products Stewardship Association to leverage joint messaging opportunities the medications return program.

### Plans for 2023 Campaign

The campaign will run again in 2023, likely with the same timing, focus, and creative materials. As the campaign heads into its seventh year, it will be important to continue to look for ways to refresh the creative materials. Metro Vancouver will continue to work with the Health Products Stewardship Association to leverage joint opportunities to promote the medications return program within the region. The campaign mascots (Pee and Poo) were used at Metro Vancouver's PNE activation in 2022, but there is also demand for them at municipal events. Use of mascots at events is resource intensive and the feasibility of using them at municipal events will be assessed for 2023. A post-campaign survey will be conducted in 2023 to help assess campaign impact.

### ALTERNATIVES

This is an information report. No alternatives are presented.

### FINANCIAL IMPLICATIONS

The 2022 Unflushables campaign had a budget of \$150,000, supported under the Liquid Waste Communications Program of the 2022 General Government Budget.

## **CONCLUSION**

The Unflushables campaign aims to reduce the disposal of problem items into the wastewater system and focuses on seven key items that should not be flushed. The campaign ran from April 4 to June 12 and targeted adults aged 25–54. The campaign performed well, generating 27 million impressions, 2.3 million video views, 648 engagements, 6,948 website visits and reaching 800,000 people. In general, de-ragging incidents at pump stations have decreased, dropping from 121 events (2017) to 37 events (2021), but with a projected increase for 2022. A number of factors influence this outcome. Metro Vancouver continues to work with the Health Products Stewardship Association to leverage joint opportunities to promote the medications take-back program. The campaign will run again in 2023 and will include a post-campaign awareness survey.

## **Attachment**

Sample of Campaign Materials

## **Reference**

[Unflushables Campaign Website](#)

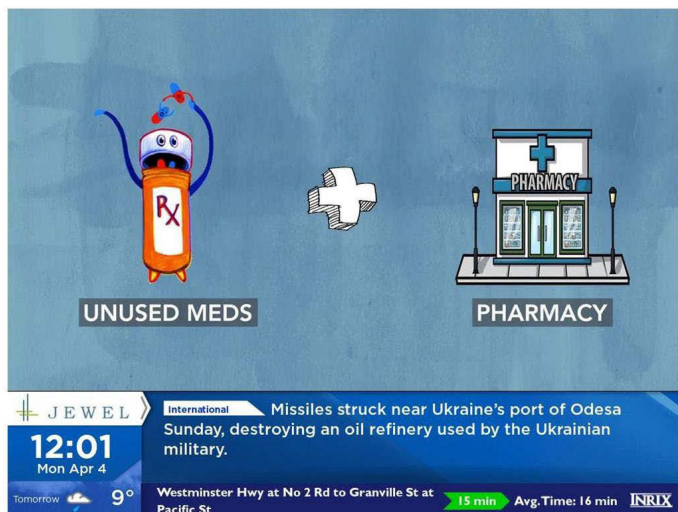
49473939



Sample of Campaign Materials



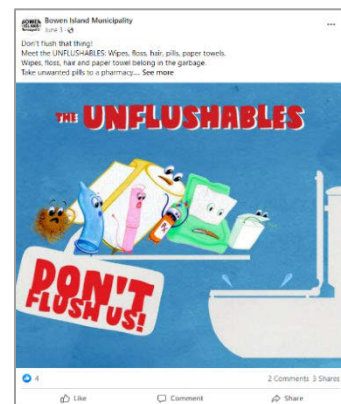
Bus kings on various routes throughout the region



Digital posters in elevators and restaurants



Social media posts



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To: Liquid Waste Committee

From: Peter Navratil, General Manager, Liquid Waste Services

Date: September 7, 2022 Meeting Date: September 21, 2022

Subject: **Manager's Report**

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## **RECOMMENDATION**

That the Liquid Waste Committee receive for information the report dated September 7, 2022 titled "Manager's Report".

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### **1. North Shore Wastewater Treatment Plant Project Update**

PCL commenced early works construction at the North Shore Wastewater Treatment Plant in August 2022, in accordance with the summer 2022 schedule communicated previously. Crews are currently completing work on existing concrete structures, with activity expected to increase in October as they turn their attention to new construction in select areas of the site.

Over the course of the past month, Metro Vancouver and PCL have made progress in securing agreements (e.g. crane swing), permits, and property rentals (e.g. parking and laydown) required to support the project, and the team is working to obtain outstanding items and approvals. Metro Vancouver is also in the process of completing building condition inspections on private properties near the project site, and PCL is preparing to complete additional survey work to document the existing conditions in the surrounding area in advance of construction activity increasing.

AECOM is advancing the design in all major plant areas, and on July 15 they issued a full design package to support development of a project execution plan. Metro Vancouver and PCL continue to collaborate on development of this plan.

The North Shore Wastewater Treatment Plant Program reached an important milestone in late August, when the North Shore Conveyance Partners completed their work on the Conveyance Project. Work on this design-build-finance contract started in late 2018 and was completed under budget. It included construction of the First Narrows Pump Station, two kilometres of 2100 millimetre outfall pipe, 850 metres of 900 mm force main, an extension of the Hollyburn Interceptor pipe to connect to the new pump station, and chambers and piping to tie the newly constructed outfall pipe into the existing marine outfall. Construction of the remaining conveyance infrastructure required to support the new treatment plant (a 900 mm force main, a section of 800 mm trunk sewer, and a 300 mm sewer pipe on West 1st Street) will be undertaken as part of the completion contract for the treatment plant project and is expected to occur when plant construction is substantially complete.

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## **2. 2022 Microfibres Reduction Campaign Update**

The 2022 regional “Our Ocean Thanks You” campaign will run from September 12 to October 31, 2022. The campaign aims to reduce microfibres in the ocean and supports Metro Vancouver’s source control initiatives to reduce unwanted items in our wastewater. Now in its second year, the campaign asks residents to wash laundry in cold water to reduce microfibre shedding. The target audience remains Metro Vancouver residents age 24–44, primarily families with children under 18. Research shows this group does the most laundry and have a vested interest in protecting the environment for future generations. The campaign will use existing creative materials featuring local marine life and will direct residents to [switchtocold.ca](http://switchtocold.ca). Tactics include digital (YouTube, Facebook, Instagram, Twitter, Pinterest), digital TV placements, TV PSA, billboards, and a new radio ad. A post-campaign survey will be conducted in November to help assess campaign performance.

## **3. GVS&DD and GVWD Request for Bylaw Notice Authority**

For a number of years, the GVS&DD and the GVWD have requested Bylaw Notice authority from the Province. Currently, the GVS&DD has only been able to prosecute violations of the GVS&DD Act through the courts. If granted, both regional entities would be able to issue bylaw notices with penalties of up to \$500 to support enforcement capabilities and offer another important behavioral change tool, mirroring the tools most municipalities possess. The Province has recently indicated a willingness to enact a regulation to grant these powers to GVS&DD and GVWD. Staff have prepared a Board report (see Reference) recommending support and directing staff to work with the Province to establish Bylaw Notice authority.

## **4. Liquid Waste Committee 2022 Work Plan**

The updated 2022 Work Plan (Attachment) shows the status of the Committee’s key priorities for the year.

### **Attachment**

Liquid Waste Committee 2022 Work Plan

### **Reference**

[GVS&DD and GVWD Request for Bylaw Notice Authority, Finance Committee report dated September 6, 2022](#)

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## Liquid Waste Committee 2022 Work Plan

Report Date: September 21, 2022

<b>Priorities</b>	
<b>1st Quarter</b>	<b>Status</b>
2021 Microfibres “The Ocean Thanks You” Campaign Results	Complete
2021 Fats, Oil and Grease Campaign Results	Complete
Northwest Langley Wastewater Treatment Plant Project Update	Complete
North Shore Wastewater Treatment Plant Project Update	Complete
Development Cost Charge Review Process and Rate Amending Bylaw	Complete
Iona Island Wastewater Treatment Plant Projects - Project Definition Engagement Results	Complete
Iona Island Wastewater Treatment Plant Projects - Project Definition and Conceptual Design	Complete
GVS&DD Trucked Liquid Waste Bylaw Amendment	Complete
2022 Liquid Waste - Sustainability Innovation Fund Applications	Complete
Municipal Requests for Sewerage Area Boundary Amendments (as applicable)	Complete
Utility Policies (as applicable)	Complete
Contract Approvals – Contracts > \$5M (as applicable)	Complete
Project Delivery Capital Portfolio Update	Complete
Sewer and Effluent Heat Recovery Bylaw	Complete
Iona Island Land Tenure and License Agreements	Complete
Liquid Waste State of Assets Report	Complete
<b>2<sup>nd</sup> Quarter</b>	
Liquid Waste Services Capital Program Expenditures Update as at Dec 31, 2021	Complete
Integrated Liquid Waste and Resource Management Plan: Report on Phase 1	Complete
LWS Environmental Management System Policy	Complete
2022 Update on Liquid Waste Sustainability Innovation Fund Projects	Complete
2021 GVS&DD Environmental Management and Quality Control Annual Report	Complete
Liquid Waste Services Environmental Risk Management Report	Complete
Municipal Requests for Sewerage Area Boundary Amendments (as applicable)	Complete
Utility Policies (as applicable)	Complete
Contract Approvals – Contracts > \$5M (as applicable)	Complete
<b>3rd Quarter</b>	
Liquid Waste Services Capital Program Expenditures Update as at April 30, 2022	Complete
Liquid Waste Heat Recovery Policy	Complete
Sustainability Innovation Fund Project Update	Complete
Proposed Capital Investment and Carbon Accounting Processes For Sewer Heat Recovery Projects	Complete
2022 Unflushables Campaign Results	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
Northwest Langley Wastewater Treatment Plant Project Design Update	Cancelled
<b>4th Quarter</b>	<b>Status</b>
Liquid Waste Services Capital Program Expenditures Update as at August 31, 2022	In Progress
Annual Budget & 5 Year Financial Plan - Liquid Waste	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
Estuary Management Program Update (moved to Mayors Committee)	Cancelled
Annacis Outfall Construction Update	Deferred to 2023
Drainage Areas Facility Policy	Deferred to 2023
Sewage Catchment Area (Rawn) Amendments	Deferred to 2023
Food Sector Bylaw Review	Deferred to 2023