

METRO VANCOUVER REGIONAL DISTRICT ZERO WASTE COMMITTEE

MEETING

Thursday, September 5, 2024 1:00 pm

28th Floor Committee room, 4515 Central Boulevard, Burnaby, British Columbia Webstream available at https://www.metrovancouver.org

AGENDA1

Α.	ADOPT	TON OF	THE A	GENDA
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1. September 5, 2024 Meeting Agenda

That the Zero Waste Committee adopt the agenda for its meeting scheduled for September 5, 2024, as circulated.

- B. ADOPTION OF THE MINUTES
 - 1. July 4, 2024 Meeting Minutes

Pg. 3

That the Zero Waste Committee adopt the minutes of its meeting held July 4, 2024, as circulated.

- C. DELEGATIONS
- D. INVITED PRESENTATIONS
- E. REPORTS FROM COMMITTEE OR CHIEF ADMINISTRATIVE OFFICER
 - 1. 2022 Integrated Solid Waste & Resource Management Plan Biennial Report Feedback

That the Zero Waste Committee receive for information the report dated August 27, 2024, titled "2022 Integrated Solid Waste & Resource Management Plan Biennial Report Feedback".

2. Waste-to-Energy Facility 2023 Financial Update

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Pg. 9

That the Zero Waste Committee receive for information the report dated August 28, 2024, titled "Waste-to-Energy Facility 2023 Financial Update".

 $^{^{1}}$ Note: Recommendation is shown under each item, where applicable.

3. Appointment of Enforcement Officers

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That the GVS&DD Board:

- a) pursuant to the *Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996* and the *Environmental Management Act* appoint Metro Vancouver employees Loretta Tang and Sean Hronksy as officers; and
- b) pursuant to Section 28 of the *Offence Act* for the purpose of serving summons for alleged violations under the *Greater Vancouver Sewerage and Drainage*District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996, appoint Metro Vancouver employees Loretta Tang and Sean Hronsky.

4. Expanding Product Categories in Extended Producer Responsibility

Pg. 34

That the Greater Vancouver Sewerage & Drainage District Board write to the Minister of Environment and Climate Change Strategy, requesting that updates to the *B.C. Recycling Regulation* be expedited to include mattresses, compressed canisters, fire extinguishers, medical sharps, and other products to ensure these materials can be included in the provincial extended producer responsibility program as soon as possible.

5. Manager's Report

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That the Zero Waste Committee receive for information the report dated August 29, 2024, 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.

I. ADJOURNMENT

That the Zero Waste Committee adjourn its meeting of September 5, 2024.

Membership:

Kirby-Yung, Sarah (C) – Vancouver Hodge, Craig (VC) – Coquitlam Calendino, Pietro – Burnaby Darling, Steve – Port Coquitlam
Ferguson, Steve – Langley Township
Fry, Pete – Vancouver

Muri, Lisa – North Vancouver District Wallace, Rosemary – Langley City Weverink, Paul – Anmore

METRO VANCOUVER REGIONAL DISTRICT ZERO WASTE COMMITTEE

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Zero Waste Committee held at 1:03 pm on Thursday, July 4, 2024, in the 28th Floor Committee Room, 4515 Central Boulevard, Burnaby, British Columbia.

MEMBERS PRESENT:

Chair, Director Sarah Kirby-Yung, Vancouver Vice Chair, Director Craig Hodge, Coquitlam Director Pietro Calendino, Burnaby Director Steve Ferguson, Langley Township Councillor Pete Fry, Vancouver Director Lisa Muri, North Vancouver District Councillor Rosemary Wallace, Langley* Councillor Paul Weverink, Anmore

MEMBERS ABSENT:

Councillor Steve Darling, Port Coquitlam

STAFF PRESENT:

Paul Henderson, General Manager, Solid Waste Services Jacque Killawee, Deputy Corporate Officer Kelly Du, Project Engineer, Solid Waste Services Jay Soper, Communications Specialist, External Relations Lynn Vidler, Lead Senior Engineer, Solid Waste Services Sarah Wellman, Senior Engineer, Solid Waste Services

A. ADOPTION OF THE AGENDA

1. July 4, 2024 Meeting Agenda

It was MOVED and SECONDED

That the Zero Waste Committee:

- a) amend the agenda for its meeting scheduled for July 4th, 2024 by moving FI "Metro Vancouver's 2024 Financial Performance Report No. 1" to Other Business as G1; and
- b) adopt the agenda as amended.

CARRIED

^{*}denotes electronic meeting participation as authorized by the *Procedure Bylaw*

B. ADOPTION OF THE MINUTES

1. June 13, 2024 Meeting Minutes

It was MOVED and SECONDED

That the Zero Waste Committee adopt the minutes of its meeting held June 13, 2024, as circulated.

CARRIED

C. DELEGATIONS

No items presented.

D. INVITED PRESENTATIONS

No items presented.

E. REPORTS FROM COMMITTEE OR CHIEF ADMINISTRATIVE OFFICER

1. Draft Solid Waste Services 2025 - 2029 Capital Plan

Report dated June 28, 2024, from Paul Henderson, General Manager, Solid Waste Services, presenting the Zero Waste Committee with the draft Solid Waste Services 2025 - 2029 Capital Plan for input and feedback.

It was MOVED and SECONDED

That the Zero Waste Committee receive for information the report dated June 28, 2024, titled "Draft Solid Waste Services 2025 - 2029 Capital Plan".

CARRIED

Paul Henderson provided members with a presentation titled "Solid Waste Services 2025-2029 Draft Capital Plan", highlighting the projects in the 2025-2029 draft capital plan and noting the division of projects into the categories of Maintenance, Resilience, Upgrade, and Opportunity.

In response to committee questions, Paul Henderson and Lynn Vidler, Lead Senior Engineer, Solid Waste Services, noted that:

- staff would provide details on the rationale for assignment of projects to categories in the September report; and
- the solid waste program is self-funding, which is different from other services at Metro Vancouver.

2. GVS&DD Notice of Bylaw Violation Enforcement and Dispute Adjudication Amendment Bylaw

Report dated June 28, 2024, from Paul Henderson, General Manager, Solid Waste Services, seeking GVS&DD Board adoption of GVS&DD Notice of Bylaw Violation and Dispute Adjudication Amendment Bylaw No. 380, 2024. Proposed amendments add penalties for designated contraventions of the GVS&DD Municipal Solid Waste and Recycling Materials Regulatory Bylaw No. 181, 1996, as amended, for private solid waste facilities.

It was MOVED and SECONDED

That the GVS&DD Board:

- a) give first, second, and third reading to *Greater Vancouver Sewerage and Drainage District Notice of Bylaw Violation Enforcement and Dispute Adjudication Amendment Bylaw No. 380, 2024*; and
- b) adopt Greater Vancouver Sewerage and Drainage District Notice of Bylaw Violation Enforcement and Dispute Adjudication Amendment Bylaw No. 380, 2024.

CARRIED

3. 2023 Disposal Ban Program Results

Report dated June 25, 2024, from Brandon Ho, Senior Project Engineer, Solid Waste Services, providing the Zero Waste Committee with the 2023 results of the Metro Vancouver disposal ban program.

It was MOVED and SECONDED

That the Zero Waste Committee receive for information the report dated June 25, 2024, titled "2023 Disposal Ban Program Update".

CARRIED

4. 2023 Waste Composition Data

Report dated June 27, 2024, from Kelly Du, Project Engineer, Solid Waste Services, providing the Zero Waste Committee with an update on the results of the waste composition studies completed in 2023, which provides estimates of the types and quantities of material disposed in the region and baseline data for the solid waste management plan update.

Kelly Du provided members with a presentation titled "2023 Waste Composition Monitoring Program" highlighting the Waste Composition Program Plan, study results, and waste composition for multi-family and commercial/industrial sectors.

It was MOVED and SECONDED

That the Zero Waste Committee receive for information the report dated June 27, 2024, titled "2023 Waste Composition Data".

CARRIED

5. 2024 Regional Clothing Waste Reduction Campaign Results

Report dated June 25, 2024, from Shellee Ritzman, Division Manager, Corporate Communications, and Jay Soper, Communications Specialist, External Relations, providing the Zero Waste Committee with an update on the results of the 2024 regional clothing waste reduction campaign, "Think Thrice About Your Clothes".

Jay Soper provided members with a presentation titled "2024 Regional Clothing Waste Reduction Campaign Results Think Thrice About Your Clothes", including information on the campaign's in-market dates, objectives, target audience of 18-44-year-olds, promotional methods such as Earth Day events, post-campaign survey findings, and plans for the 2025 campaign.

It was MOVED and SECONDED

That the Zero Waste Committee receive for information the report dated June 25, 2024, titled "2024 Regional Clothing Waste Reduction Campaign Results".

CARRIED

6. Commercial Organics Recycling: GVS&DD Tipping Fee and Solid Waste Disposal Regulation Amendment Bylaw No. 381, 2024

Report dated June 27, 2024, from Allen Jensen, Senior Project Engineer, Solid Waste Services, seeking GVS&DD Board approval to add a new recycling fee of \$140 per metric tonne for commercial organics, and Board adoption of *Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal regulation Amendment Bylaw No. 381, 2024*.

It was MOVED and SECONDED

That the GVS&DD Board:

- a) approve an amendment to the Tipping Fee Bylaw to add a new recycling fee titled "Commercial Organics" with a fee of \$140 per metric tonne, effective September 1, 2024;
- b) give first, second and third reading to *Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Amendment Bylaw No. 381, 2024*; and
- c) adopt Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Amendment Bylaw No. 381, 2024.

CARRIED

7. Waste-to-Energy Facility Environmental Monitoring and Reporting 2023 Update Report dated June 26, 2024 from Sarah Wellman, Senior Engineer, Solid Waste Services, providing the Zero Waste Committee with an annual overview of the Waste-to-Energy Facility's environmental monitoring program and implementation of Provincial Operational Certificate requirements.

Sarah Wellman provided members with a presentation titled "Waste-to-Energy Facility Environmental Monitoring and Reporting – 2023 Update", noting the continuous emissions monitoring system, including quarterly manual stack testing, and fly ash and bottom ash monitoring. She noted real-time monitoring is available on Metro Vancouver's website and walked the committee through monitoring results.

It was MOVED and SECONDED

That the Zero Waste Committee receive for information the report dated June 26, 2024, titled "Waste-to-Energy Facility Environmental Monitoring and Reporting 2023 Update."

CARRIED

8. Manager's Report

Report dated June 28, 2024 from Paul Henderson, General Manager, Solid Waste Services, providing the Zero Waste Committee with an update on recycling and waste centres, noting the increases in use of free recycling and reuse, and that the request for qualifications documents for Waste-to-Energy district energy piping are available.

It was MOVED and SECONDED

That the Zero Waste Committee receive for information the report dated June 28, 2024 titled "Manager's Report.

CARRIED

F. INFORMATION ITEMS

Report "Metro Vancouver's 2024 Financial Performance Report No. 1" was moved to Other Business.

G. OTHER BUSINESS

1. Metro Vancouver's 2024 Financial Performance Report No. 1

Report dated June 28, 2024, from Harji Varn, General Manager/Chief Financial Officer, Financial Services, providing the Zero Waste Committee with Metro Vancouver's 2024 financial performance report, the first of three financial performance and forecast reports for 2024.

Paul Henderson introduced the report, noting that Solid Waste Services is projected to have a year-end deficit of \$2.4 million for 2024. Although there are higher than expected revenues of \$13.3 million, due to more waste flows along with additional commercial organics, the revenue is expected to be offset by higher forecasted costs of \$15.7 million, primarily related to increased contingency disposal costs.

It was MOVED and SECONDED

That the Zero Waste Committee provides the following feedback to staff for the development of the 2025-2029 Financial Plan: garbage quantity projections should be reviewed to determine the amount of contingency disposal required to ensure cost recovery for the program.

C	Δ	R	R	ı	F	D

H. RESOLUTION TO CLOSE MEETING

No items presented.

I. ADJOURNMENT

It was MOVED and SECONDED

That the Zero Waste Committee adjourn its meeting of July 4, 2024.

CARRIED

(3.03 pm)

Jacque Killawee,	Sarah Kirby-Yung,
Deputy Corporate Officer	Chair

69124237



To: Zero Waste Committee

From: Terry Fulton, Senior Project Engineer, Zero Waste Implementation

Solid Waste Services

Date: August 27, 2024 Meeting Date: September 5, 2024

Subject: 2022 Integrated Solid Waste & Resource Management Plan Biennial Report

Feedback

RECOMMENDATION

That the Zero Waste Committee receive for information the report dated August 27, 2024, titled "2022 Integrated Solid Waste & Resource Management Plan Biennial Report Feedback".

EXECUTIVE SUMMARY

The draft 2022 Integrated Solid Waste & Resource Management Plan Biennial Report (Biennial Report) summarizes progress made implementing the *Integrated Solid Waste and Resource Management Plan*, specifically highlighting initiatives in 2021 and 2022. The draft Biennial Report was received for information by the GVS&DD Board at its April 26, 2024 meeting. The Board approved sharing the draft with First Nations, member jurisdictions, and other interested parties to seek feedback prior to submission to the BC Ministry of Environment and Climate Change Strategy.

Feedback was received from two individuals, and from Zero Waste BC / Zero Waste Canada. Feedback included highlighting the need to invest in new infrastructure, packaging reduction, increasing transparency, and clarifying definitions. One of the submissions advocated for additional waste-to-energy, and another suggested phasing out the Waste-to-Energy Facility, and stopping new projects connected with the facility.

The feedback will be shared with the BC Ministry of Environment and Climate Change Strategy, and themes highlighted are being reviewed by staff and are considered inputs into the solid waste management plan update.

PURPOSE

The purpose of this report is to inform the Zero Waste Committee of feedback received on the draft 2022 Biennial Report on the *Integrated Solid Waste and Resource Management Plan*.

BACKGROUND

Metro Vancouver's *Integrated Solid Waste and Resource Management Plan* was approved by the Minister of Environment on July 22, 2011. A condition of its approval was that Metro Vancouver provide a biennial progress report on the implementation of the plan to the Ministry of Environment and Climate Change Strategy. On April 26, 2024, the GVS&DD Board received the draft Biennial Report for information and approved seeking feedback on the draft report prior to submitting it to the BC Ministry of Environment and Climate Change Strategy. This report provides

the Zero Waste Committee with the feedback received after sharing the report with First Nations, member jurisdictions, and other interested parties.

2022 INTEGRATED SOLID WASTE & RESOURCE MANAGEMENT PLAN BIENNIAL REPORT

Metro Vancouver is among the most successful jurisdictions in North America in managing solid waste: recycling 65% of waste generated, reducing per capita generation by 11%, and per capita disposal by 23% since the current solid waste management plan was approved in 2011.

Metro Vancouver reports out once every two years on progress in implementing the *Integrated Solid Waste Management Plan*. The draft 2022 Biennial Report, available as a reference to this report, is a summary of progress and includes the annual recycling and solid waste summary. The Biennial Report includes a summary of strategies, performance measures and progress on the detailed actions in the plan.

Engagement and Feedback

Metro Vancouver distributed the draft 2022 Biennial Report for feedback to First Nations, member jurisdictions, and other interested parties, including a database of over 3,500 subscribers, for feedback between May and July 2024.

Metro Vancouver received three submissions: two from individuals, and a combined submission from Zero Waste BC/Zero Waste Canada. The submissions and Metro Vancouver's responses are attached.

Overall feedback indicated an interest in improved solid waste and recycling infrastructure, reduction of waste, and improving definitions and transparency. Feedback is summarized below.

Written feedback from two individuals included:

- Reducing packaging waste
- Ensuring cost of recycling is the responsibility of manufacturers rather than consumers
- Using easily recycled materials instead of plastic
- Investing in waste-to-energy and biofuel facilities to create energy and jobs, and further reduce disposal to landfill

Written feedback from Zero Waste BC / Zero Waste Canada (combined submission) included:

- Reviewing the existing solid waste management plan
- Focusing more resources on waste reduction and reuse
- Ensuring clear and transparent terminology
- Improving targets
- Developing markets for clean wood processing
- Expanding organics management capacity
- Increasing information on reduction, reduce, reuse, repair, and refill locations
- Enhancing the disposal ban program
- Separately reporting materials used as fuel compared to materials used for material recycling, and no longer counting material used as fuel as recycling
- Phasing out the Waste-to-Energy Facility

- Not using heat from the Waste-to-Energy Facility for district energy
- Not using bottom ash for cement production
- Not managing biosolids at the Waste-to-Energy facility

Metro Vancouver Responses

Metro Vancouver provided responses to all submissions noting each respondent's comments and encouraging continued feedback as part of the solid waste management plan update process.

Responses included information about:

- Metro Vancouver's commitment to reducing waste in the region
- The benefits of extended producer responsibility programs
- Metro Vancouver's involvement in initiatives to increase awareness and reduction of plastic packaging in the waste stream
- Information on the groundwater monitoring program at the Coquitlam landfill and the reporting and compliance requirements of the Province
- Importance of investments in measures to ensure excellent efficiency and environmental performance of the Waste-to-Energy Facility, including the district energy system
- Sampling and monitoring bottom ash from the Waste-to-Energy Facility, and Metro Vancouver's commitment to transparency on its website
- A technical study underway reviewing the various options for managing residual garbage

All written feedback will be submitted with the Biennial Report to the Ministry of Environment and Climate Change Strategy. The feedback and themes highlighted are being reviewed by staff and are considered inputs into the solid waste management plan update. Metro Vancouver will continue to advance waste reduction in the region, and waste reduction opportunities will be a key focus in the development of an updated regional solid waste management plan.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

Metro Vancouver's recycling and waste reduction initiatives are implemented within the annual budgets for the Solid Waste Services department.

CONCLUSION

Feedback on Metro Vancouver's 2022 Biennial Report indicates a continued desire to focus on waste prevention, reduction, reuse, and repair which is consistent with the waste management hierarchy and the goals of the *Integrated Solid Waste and Resource Management Plan*. Much of the feedback reflects key priorities of the solid waste management plan update process, including improving transparency and ensuring that waste management and recycling infrastructure continues to meet the needs of the region. Metro Vancouver has compiled all feedback received and will submit it with the final 2022 Biennial Report to the BC Ministry of Environment and Climate Change Strategy.

ATTACHMENTS

1. Feedback Received on the 2022 Integrated Solid Waste and Resource Management Plan Biennial Report

REFERENCES

1. Draft 2022 Biennial Report

69375809

From: Metro Vancouver Solid Waste Management Plan Update

Sent: Thursday, May 16, 2024 4:37 PM

To: |

Cc: Paul Henderson < Paul. Henderson@metrovancouver.org >

Subject: RE: Metro Waste Mgmt Plans & Results

Hi Mr.

Thanks for taking the time to provide feedback on Metro Vancouver's solid waste initiatives. Metro Vancouver is a North American leader in waste reduction and recycling. As you note, facilities such as Surrey Biofuel are critically important in advancing Metro Vancouver's waste reduction and recycling goals.

Metro Vancouver's Waste-to-Energy Facility is a cost effectively and environmentally sustainable way to manage residual garbage. In addition to identifying ways to continue to reduce waste and advance the circular economy, the solid waste management update will consider options for management of residual garbage. A technical study is underway to review the various options for managing garbage. The scope of the study is available at: Scope of Work - Residuals Management Options Review.pdf (metrovancouver.org).

Metro Vancouver continues to invest in the Waste-to-Energy Facility to ensure excellent environmental performance. Metro Vancouver's Board has approved the development of a district energy system that will triple the Waste-to-Energy Facility's energy recovery efficiency compared to generating electricity alone, reduce greenhouse gas emissions by up to 70,000 tonnes per year, and provide heat and hot water for up to 50,000 homes. I encourage you to continue to be involved in the solid waste management plan update process. Updates on the process will be posted here: Solid Waste Management Plan Update | Metro Vancouver

Feel free to let us know if you have additional questions or feedback.

Sent on behalf of Paul Henderson, General Manager, Solid Waste Services

From:

Sent: Sunday, May 5, 2024 3:46 PM

To: Metro Vancouver Solid Waste Management Plan Update < zerowaste@metrovancouver.org;

Subject: Metro Waste Mgmt Plans & Results

WARNING: This email originated from outside of our organization. Do not click any links or open attachments unless you trust the sender and know the content is safe.

Hello Folks -- I am very pleased to see more and more tracking of waste results -- that is good. The investment in a Biofuel / waste facility Port Kells was a BIG step in the right direction.

I find it absolutely amazing that Metro has done so little to invest in more facilities like the Covantus Plant which cleanly and safely removes 25% of Vancouver's potential landfill waste while providing

jobs, electricity, and community heat...... You should invest in another much larger and more modern facility and divert at least 90% of burnable waste so land fill dumping goes to ZERO asap. I actually can't believe that a business case can't be made for this investment when all the externalities are included in the benefits. If you need to --- get the FEDs to put their money where their mouth is on Green futures.

Cheers

----Original Message-----

From: Metro Vancouver Solid Waste Management Plan Update

Sent: Friday, May 17, 2024 1:43 PM

To: '

Subject: RE: Biennial Report

Hi Mr.

Thank you for your recent comments in response to Metro Vancouver's invitation to provide feedback on the draft 2022 Integrated Solid Waste and Resource Management Plan Biennial Report. In response to your thoughtful comments, please consider the following:

Recycle BC and Extended Producer Responsibility Since 2014, collection of residential recycling from homes throughout B.C. has been carried out by Recycle BC, an organization operating on behalf of manufacturers and brand-owners in the province. Recycle BC is a program created in response to the provincial government requirement to develop an extended producer responsibility program for packaging and paper products. Although the costs of the recycling program are likely paid, at least in part, by consumers, the benefit of this approach is improved equity as those residents who consume more end up paying a higher portion of the costs of operating the recycling program. In the previous system, where municipalities often charged residents a utility fee or property tax to pay for municipal recycling programs, this type of payment was delinked from consumption. To find out more about Recycle BC, please visit the website: https://recyclebc.ca/

Plastic Packaging Reduction Initiatives Metro Vancouver works through various channels to address the challenge around the types of packaging put on the market, especially packaging that cannot be easily collected and processed for recycling. The following are some examples of these efforts:

1.Metro Vancouver works locally with the Recycling Council of BC and Ocean Ambassadors to help educate businesses and residents on the best option for sustainable take-out ware, emphasizing switching to reuse.

2.As you point out, many of the decisions around packaging are made by industry. Metro Vancouver staff participate in the Canada Plastic Pact, which has a broad membership that includes other government participants, industry, plastics recyclers and NGOs. Canada Plastic Pact targets include - identifying unnecessary plastic for elimination, making all plastic packing designed to be recyclable or reusable by 2025, ensuring over 50% of plastic packaging is collected for recycling in Canada, and having 30% recycled content in plastic packaging. One key tool that is starting to get traction is their Golden Design Rules (GDRs) for plastic packaging, which more and more brands are requiring their packaging manufacturers to comply with. The GDRs ensure the plastic packaging placed on the Canadian market is recyclable and doesn't use extra air space. While this work may not directly address your suggestion of looking to the past, where plastics were not part of the packaging, it does start to get brand owners and manufacturers moving in the right direction and to better understand the challenges with plastics recycling.

3.In addition to working with industry on voluntary measures, Metro Vancouver staff advocate for Canada-wide and province-wide regulations. BC is a leader in the area. The Single-Use and Plastic Waste Prevention Regulation phases out certain hard-to-recycle plastics and single-use items, and sets out required measures to reduce the distribution of remaining items.

4. Affordability is a key priority in the Metro Vancouver Board Strategic Plan. As such, staff continue to advocate for a full systems cost view that keeps overall costs for these important recycling and reuse systems as low as possible as we work through these various channels to reduce packaging waste.

Thank you again for your feedback. Metro Vancouver staff will continue to prioritize elimination, reuse, refill and design for recycling to reduce packaging waste, and we are seeing more and more success in this area as more residents are asking the questions you pose and demanding action.

The Solid Waste Services Team

----Original Message-----

From:

Sent: Monday, May 6, 2024 4:16 PM

To: Metro Vancouver Solid Waste Management Plan Update < zerowaste@metrovancouver.org >

Subject: Biennial Report

WARNING: This email originated from outside of our organization. Do not click any links or open attachments unless you trust the sender and know the content is safe.

Thank you for this opportunity. Certainly the overall success of your efforts in Metro Vancouver are obvious, however the original origin of most of our solid waste is clearly not here in Metro. All the resources we devote to coping with this enormous problem continues to ignore the sources. What we need is in large part is the prohibition of packaging of all kinds that is not easily recycled. The cost of recycling these materials should not be laid at the feet of consumers. They have had the consequences of choices made by industry of all kinds foisted on them. It is unfair and simply wrongheaded. If manufacturers of all kinds can't afford or don't want to recycle then what they may produce should be priced out of production or prohibited.

As an old man I can remember food products that were not sealed in plastic but were in glass bottles or steel cans and fresh meats, fish and poultry were packaged where sold in paper including even newsprint. These were all mass market products. Metro ought to promote and encourage and ultimately require a modern return to what is cleanly recycled. Remember today's plastic glut was not conceived by consumers it was conceived by corporate boards in pursuit of "efficiency" and profits. The ways of packaging from before plastic were efficient and profitable and can be again.

It initially grows then it is probably recyclable. If it is created from something that does not grow now then it is probably not recyclable. We don't need the latter except for very few, like glass.

From: Metro Vancouver Solid Waste Management Plan Update

To: "Sue Maxwell"; Jamie Kaminski

Cc: Paul Henderson; Terry Fulton; Chris Underwood; Stephanie Liu

Subject: RE: Metro Vancouver Biennial Report Date: Wednesday, July 3, 2024 2:34:44 PM

Attachments: <u>image001.png</u>

Hi Sue and Jamie,

Thank you for your thorough review of the 2022 Biennial Report including your thoughtful ideas in Section 2 – 4 involving future actions. We will document your feedback as part of the solid waste management plan update process where applicable.

We are working to address the discrepancies you've noted in the statistics within the report and will get back to you with any subsequent corrections. Responses to the questions provided within your letter are provided below.

• What are the costs per tonne of each disposal method for both operational costs only and for costs including capital costs?

Our plan is to incorporate this information in the September Zero Waste Committee Waste-to-Energy Facility financial report. Our goal is to provide comparable information for the Waste-to-Energy Facility and landfill options.

• What monitoring is being done of the United Boulevard centre to see if leachate from the use of bottom ash is occurring?

There is a comprehensive groundwater monitoring program for the Coquitlam Landfill. An annual report is generated by Metro Vancouver's consultants and submitted to the Ministry of Environment and Climate Change Strategy.

Sewer discharge from the landfill is also monitored on a regular basis to ensure compliance with the sewer discharge permit for the site.

• What monitoring is being conducted for each load of bottom ash that leaves the facility to minimize the downstream risk of spreading it across the region?

Samples from each load of bottom ash are collected and used to develop composite samples that are tested weekly, with data available on the Metro Vancouver website.

• 3.1.6 notes Lafarge is taking the drinking water residuals but table 3 would indicate they are going to the Vancouver Landfill (if WT stands for water treatment)-where do they go and what does WT stand for?

It goes to Lafarge when the facility is available. If unavailable, Vancouver Landfill is used as backup. WT does stand for water treatment. We will update the report accordingly.

All feedback on the biennial report will be shared with the Zero Waste Committee and BC Ministry of Environment and Climate Change Strategy. We look forward to continued discussions with Zero Waste BC and Zero Waste Canada on all aspects.

Thank you,

The Solid Waste Services Team

From: Sue Maxwell <

Sent: Tuesday, May 21, 2024 2:15 PM

To: Metro Vancouver Solid Waste Management Plan Update <zerowaste@metrovancouver.org>

Cc: Jamie Kaminski < jamie.kaminski@zerowastecanada.ca>

Subject: Metro Vancouver Biennial Report

WARNING: This email originated from outside of our organization. Do not click any links or open attachments unless you trust the sender and know the content is safe.

Thank you for the opportunity to provide feedback on this report.

Please see our comments, suggestions and questions in the attached.

Sincerely, Sue Maxwell

Sue Maxwell Chair, Zero Waste BC smaxwell@zerowastebc.ca 604-734-4046 www.zerowastebc.ca



Zero Waste BC is a non-profit society that has been championing Zero Waste since 2008 with a mission to drive systemic change towards Zero Waste in BC.

I humbly acknowledge that the land on which I live, work and play is in the unceded territories of the Skwxwú7mesh (Squamish) and Lil'wat7úl (Lil'wat) peoples.



May 21, 2024

To Whom It May Concern:

Thank you for sharing and allowing us to comment on your biennial Solid Waste Management Plan Progress report.

Zero Waste BC is a non-profit association dedicated to driving systemic change towards Zero Waste in BC. Zero Waste Canada is a non-profit grassroots organization, dedicated to ending our age of wastefulness through improved industrial design and education. Zero Waste is the conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health. Our current resource consumption systems of linear take-make-waste not only create waste but also generate a huge amount of greenhouse gases which constitute some of the discharges that threaten the environment and human health as well as impacting the biodiversity of the planet. For more information on Zero Waste, please see the Zero Waste Hierarchy.¹

Since the last biennial report, we are very pleased to see the work on waste prevention and reuse and hope this will continue to be scaled up. We also support the work done to make recycling and waste centres one stop dropping options as much as possible, including the addition of pilot reuse options which we hope can be expanded.

Section 2 Strategies

Specific feedback on strategies is noted below using the Zero Waste hierarchy:

Strategy 1.2 Reduce or eliminate materials entering the solid waste system which hinder or limit the opportunities to achieve reuse, recycling, or energy recovery, or that may exacerbate environmental impacts of disposed residuals. We encourage Metro Vancouver to expand the work of the NZWC and collaborations as well as to increase the effectiveness, enforcement and education on disposal bans. This should include mandating clear bags, and until then looking in black bags as visual enforcement will only go so far if you cannot see what is in the waste (as demonstrated by the results of the waste composition studies)

Strategy 1.3 Provide information and education on options to reduce waste -we fully support this work and feel it should be scaled up. This could include expanding the Love Food Hate Waste program to include the ICI sector as well as hosting workshops on the alternate years to the full NZWC conference which was recently scaled back to biannually.

Strategy 2.1 Increase the opportunities for reuse. These are great initiatives that should be scaled up.

¹ Zero Waste Hierarchy: https://zerowastecanada.ca/zero-waste-hierarchy/.

Strategy 2.2 Increase the effectiveness of existing recycling programs and Strategy 2.3 Provide opportunities to increase private sector recycling. Metro Vancouver has made some strides in this area to make sorting waste correctly easier and more convenient. Future actions should work to make three stream collection mandatory in all municipalities.

Strategy 2.4 Target construction and demolition sector for increased reuse and recycling -Metro Vancouver should work to have all member municipalities embrace deconstruction policies as well as more actively monitor C&D facilities for accuracy to support the municipal bylaws.

Strategy 2.5 Reduce paper and paperboard being disposed -While Recycle BC is responsible for collection of this materials from residential homes, Metro Vancouver should play a key role in ensuring this mandate is fulfilled (including provision of streetscape collection). Metro Vancouver also has a strong role to play on ensuring the ICI sector has collection systems in place and low contamination levels as the composition studies still show a significant amount of this material going into the garbage. Enforcement of bans needs to include paper as well. A focus on the need for reusables instead of fibre based takeout ware is needed as the Provincial policy on single use plastics may drive a switch to fibre unless a strong campaign is in place to push for reusables.

Strategy 2.6 Target organics for recycling and energy recovery. Metro Vancouver should continue the work to keep organics out of the garbage and only consider the Surrey AD facility as appropriate for energy recovery (not the WTE facility). Energy recovery should be considered as a byproduct of a composting process and not as a primary product. The main intent should be to reduce the volume of organics being discarded and returning discarded organics back to the soil.

Strategy 2.7 Target wood for reuse, recycling and energy recovery. We support the development of a plan to keep wood in use as wood and not for energy recovery. Focusing on energy recovery will divert funding and resources needed to develop a robust reuse infrastructure, fail to achieve the problem of over use of primary resources, and slow progress toward the development of renewable energy infrastructure such as solar, geo-thermal, tidal, and wind.

Strategy 2.8 Target plastics for increased recycling. Metro Vancouver should continue to be a strong advocate for the reduced use of plastics and ensuring any that are used are recycled. Similar to strategy 2.5, Metro Vancouver should still pursue this strategy despite the existence of Recycle BC.

Strategy 2.9 Target multi-family and commercial/institutional sectors to improve diversion rates. We hope to see progress on this.

Strategy 2.10 Develop contingency plans for the loss of recycling markets. Metro Vancouver should support the inclusion of ICI packaging and paper in the Recycling Regulation so the fluctuation in markets no longer is a risk to Metro Vancouver systems.

Strategy 2.11 Integrated Utility Management Advisory Committee

While Metro Vancouver has two advisory committee in the lead up to the next solid waste management plan, the shift to the Zero Waste Committee which has no representatives from the public or civil society groups means that the onus is on the public to monitor the agendas for the Zero Waste Committee and understand that that is the place to provide feedback. Going forward, we would recommend a more robust way to ensure that the public interest is represented.

Strategy 3.1 Use Waste-to-Energy to provide electricity and district heating. As noted in ZWBC's recent presentation to the Zero Waste Committee, we strongly advise against the pursuit of further lock in of the waste to energy facility and that alternative, truly clean and renewable energy source is sought for the district energy system. We also recommend that a cost analysis be done on the costs of district energy compared to upgrading to standards closer to passive standard and use of heat pumps and other low carbon, low polluting sources.

Strategy 3.2 Recover energy from other solid waste management facilities. We support this but stress more emphasis needs to be placed on preventing organics form going to landfill.

Strategy 3.3 Utilize non-recyclable material as fuel. We do not support this as it is a waste of the material and the embodied energy, and puts out significant quantities of biogenic GHGs that will take decades to reabsorb. The majority of what is currently being burned could have been avoided, recycled or composted. Instead, systems should be developed to keep the wood usable and create a network of businesses that can use the wood as a material, not a fuel. Furthermore, many non-recyclable materials are typically toxic or harmful when burned. Focusing on burning this material increases the environmental and health risks of the region.

As noted in our review of the 2021 biennial report,

- We do not support "beneficial" use of bottom ash from waste incinerators. While bottom ash from an incinerator is deemed to be safe for burying in a properly managed landfill, it is not void of heavy metals or other toxins. Using it in concrete that will then be distributed across the region to unrecorded locations is not sound practice. An example in the UK, where ash from an incinerator was used widely, required removal of the contaminated material from those sites. Not only did this put the public and environment at risk, but it was also costly and reduced trust in local leadership.²
- Diverting biosolids to the Burnaby incinerator. Biosolids are an organic material that should be
 processed as such and not sent to be burned in an incinerator. Doing this would further increase
 a dependence on a system that is expensive, outdated, and not necessary for the management
 of solid waste in the 21st century.

Section 3 Performance Measures

We urge Metro Vancouver to use the term recycling as recently defined by CSA for plastics: *Recycling is the reclamation of plastics (as polymer, monomer, or constituent chemical building blocks) in such a manner that they displace the primary or raw materials that are used as chemical building blocks in the production of plastics and plastic products and packaging*. This is particularly relevant for wood, which should only be counted as recycled if it is the reclamation of wood in such a manner that they displace the primary or raw materials that are used as building

² Guardian (2000). Incinerator firm faces charges over toxic waste. https://www.theguardian.com/society/2000/dec/15/localgovernment.uknews

³ CSA (2021). *Defining Recycling in the Context of Plastics*. https://www.csagroup.org/wp-content/uploads/CSA-Group-Research-Defining-Recycling-in-the-Context-of-Plastics.pdf

blocks in the production of wood and wood products and packaging. This is more in line with how it is defined in the report section 3.3 "recycling involves processes that alter the structure of materials and allows them to be remanufactured into new products". Recycling is not merely if there is a market in which to sell the waste material, but needs to be about actually putting in back into an equivalent product (not burned).

Metro Vancouver should then recalculate the recycling rate excluding all wood that was sent for burning or energy uses Failing that, the data on wood going to such uses should be made explicit so the public can calculate an accurate recycling rate.

Table 1 includes a new column for C&D waste residuals sent to the Vancouver Landfill but there is no explanation what this material is and how it differs from the existing C&D column. Please explain what this material is. It also does not appear in the total tonnage sent to the Vancouver Landfill (table 3) which is confusing. Also the total for table 1 (for 2022 anyway) is not a sum of the three columns listed.

We appreciate the clarity on landfill cover amount shown in table 5, though steps should be taken to minimize the materials needed. These volumes should be included in disposal figures.

We fully support the development of metrics for reuse and hope this work will continue and expand.

For EPR programs, we recommend Metro Vancouver make estimates of the amount of program materials that remain in the waste based on waste composition studies and other data.

In Table 11 the total amount generated and total disposed is less than reported. Please assist us in understanding how these amounts are calculated. For disposal, Table 2 shows VLF, WTE plus contingency which in 2022 equaled 1,015,768 tonnes. When the VLF C&D, C&D residuals and private C&D landfill are added (from tables 1 and 3), it equals 1,354,683 for total disposal solid waste in region (excluding landfill cover, residuals from the liquid waste/water treatment and ash. Similarly, table 6 has the smaller number for disposal but it is not clear why.

Thank you for providing the section on the calculation methodology. It does not note how this new VLF C&D residual amount is factored in or not.

Note the C&D disposal amount in table 15 does not match the totals of C&D (both kinds) to VLF plus private C&D disposal noted earlier in the report (which is 382,153).

The report should be reviewed to ensure consistent numbers are reported and then all calculation of recycling rates and per capita rates should be reviewed for accuracy.

Section 4 Detailed Actions

The current status of many of the actions are noted as complete or substantially complete when the aim of the action has not been achieved. In some cases, the description does not state if the action has been achieved or is even underway (example 1.1.3 notes comments on one plan but does not say if comments have been submitted on other EPR plans or if staff support is being given.)

Despite significant efforts in the area of recycling, there has been limited progress in the reduction of waste as a whole compared to what was envisioned in the plan. Metro Vancouver and their respective municipalities place a significant amount of responsibility on the regions EPR

programs and their ability to collect and responsibly manage all material within their programs. The reality is that the regional EPR programs struggle to collect all materials in their program setting low recovery targets, and they also struggle in responsibly managing materials that do not have established recycling markets such as low-grade plastics, products made with multiple materials, or materials that contain toxins such as brominated fire retardants. Furthermore, these programs do very little in the area of reduction and reuse of waste. Where an EPR program may have responsibility for part of an action Metro Vancouver should still be doing its part to ensure the action is achieved (by the EPR program or through work done by Metro Vancouver to ensure it occurs)

In addition, there are several actions where Metro Vancouver is relying solely on communications tools rather than also strongly supporting them with policy, collaboration with member municipalities and other tools, yet the action may be deemed mostly complete. The examples are numerous but include 2.83 the Province has developed EPR programs for all plastics when in actual fact there remain no EPR programs for plastics in ICI packaging, furniture, household goods, carpet, textiles, automotives, and no plastic recycling in most existing programs for electrrical goods. Also 2.4.4 Municipalities Will: Work with Metro Vancouver to develop a process to require C&D recycling at construction/demolition sites which is marked as substantially complete when there remain many municipalities without a required process.

Recommendations:

With this in mind, we offer the following recommendation to improve Metro Vancouver's Solid Waste Management Plan going forward:

- Metro Vancouver should have its solid waste planning consultant or an impartial third party do a
 review of the status of the existing plan to determine what actions have actually been
 completed or not. Where there are discrepancies, those should be highlighted so that important
 strategies can be carried over to the next plan which can offer more detailed recommendations
 to ensure progress is made.
- Put more emphasis and resources towards supporting municipalities and other organizations in the pursuit of meaningful, and effective reduction and reuse activities. This includes advocating to the Ministry of Environment to ensure that all EPR programs shift their focus towards repair, reuse and refill of their products and packaging with recycling as the last resort.
- Ensure that Metro Vancouver is clear with their terminology and not misrepresent the action of
 recycling (which is about cycling the material back into a purpose as close to its original as
 possible) with misleading terms such as advanced recycling or recycling to fuel etc. These terms
 are used to confuse the public into accepting the destruction of materials and resources through
 burning, as a form of recycling, which it is not.
- Avoid further commitments to burning waste and district energy systems relying on burning
 waste. The more resources spent looking at this solution which has been proven to be flawed,
 the less resources there are to focus on waste reduction, reuse, recycling and composting, which
 have a much higher return on investment for the region as a whole. Instead phase out burning
 waste and redirect those funds towards Zero Waste actions.

- Consider targets for total discard reduction including recycling, composting, as well as waste in order to extend the useful life of products, packaging and materials. This will encourage further reduction and reuse of all materials.
- Develop an action plan to support a networked system of clean wood processors who will use
 the wood to create marketable products (not energy). Possibly work with King County to learn
 from their plans as well as neighbouring regions to ensure the system is scaled to the local
 supply.
- Given that there are sometimes challenges processing organics, that there will continue to be an
 ongoing supply and this will not be part of an EPR program, Metro Vancouver should develop or
 secure its own long-term composting capacity.
- Supporting an online information hub for reduction, reduce, reuse, repair and refilleries (possibly in partnership with RCBC with a goal that it covers the whole province).
- Work to further enhance the disposal bans by adding inspectors, improving formal training and culture of diversion for the inspectors, and conduct various pilot programs to find solution for more meaningful inspection process such as sampling and inspecting waste in black bags.
 Consider adding a clear bag mandate to make it easier to inspect loads.
- Work with adjacent regions to implement similar disposal bans to prevent private haulers
 transporting waste to adjacent regions for the purpose of circumventing disposal bans. Gather
 full data on all waste collected to ensure that the data set is complete, including all waste
 collected by private haulers
- Advocate for the federal and provincial government to restrict the export of waste by private companies who wish to circumvent regional disposal bans.
- Advocate for the National Zero Waste Council to adopt the international definition of Zero Waste and the Zero Waste Hierarchy 8.0 (see appendix)

Questions:

Metro Vancouver is to be congratulated for having a good data set (aside from the discrepancies noted above). We have some additional questions on it:

- What are the costs per tonne of each disposal method for both operational costs only and for costs including capital costs?
- What monitoring is being done of the United Boulevard centre to see if leachate from the use of bottom ash is occurring? What monitoring is being conducted for each load of bottom ash that leaves the facility to minimize the downstream risk of spreading it across the region?
- 3.1.6 notes Lafarge is taking the drinking water residuals but table 3 would indicate they are going to the Vancouver Landfill (if WT stands for water treatment)-where do they go and what does WT stand for?

Again, thank you for the opportunity to provide feedback and we would be happy to discuss these matters further.
Sincerely,
Jamie Kaminski
On behalf of Zero Waste Canada
And
Sue Maxwell
On behalf of Zero Waste BC



To: Zero Waste Committee

From: Brent Kirkpatrick, Lead Senior Engineer, Solid Waste Operations,

Solid Waste Services

Date: August 28, 2024 Meeting Date: September 5, 2024

Subject: Waste-to-Energy Facility 2023 Financial Update

RECOMMENDATION

That the Zero Waste Committee receive for information the report dated August 28, 2024, titled "Waste-to-Energy Facility 2023 Financial Update".

EXECUTIVE SUMMARY

This report provides the annual financial update for the Metro Vancouver Waste-to-Energy Facility. The facility continues to be an environmentally sound, cost effective disposal option. In 2023 the Waste-to-Energy Facility processed 236,278 tonnes of municipal solid waste at an overall net unit cost of \$92.18 per tonne for operation and maintenance. The Waste-to-Energy Facility net cost per tonne of waste processed increased in 2023 as compared to 2022, primarily due to increased ash management costs and debt servicing costs. Waste-to-Energy Facility revenues in 2023 were reduced compared to 2022 due to a generator failure in September. The generator was back on-line as of July 2024. Insurance claims related to the generator failure are still being resolved with insurance providers.

Waste-to-Energy Facility unit costs are comparable to the cost of managing waste at the Vancouver Landfill and roughly half the cost of managing waste through Metro Vancouver's contingency disposal contracts. Waste-to-Energy Facility costs are funded through garbage tipping fees paid by all solid waste system users.

PURPOSE

The purpose of this report is to provide the Zero Waste Committee with the annual financial update for the Metro Vancouver Waste-to-Energy Facility located in Burnaby.

BACKGROUND

Annually, results of the operation of the Waste-to-Energy Facility and contract with Covanta Burnaby Renewable Energy, ULC (Covanta), including tonnages, expenditures, revenues, service level and performance, and unit costs, are provided to the Zero Waste Committee for information.

2023 WASTE-TO-ENERGY FACILITY FINANCIALS

Table 1 provides the past three years of expenditures for the Waste-to-Energy Facility. Total expenditures include operations and maintenance of the Waste-to-Energy Facility, ash management costs, and capital project debt service costs. Ash management costs increased in 2023 due to higher fly ash and bottom ash disposal costs which increased due to inflation. Capital project debt service costs have increased as a result of new capital projects. The majority of the capital

costs from the past three years have been associated with the feed hopper construction project and the primary economizer replacement project.

Table 1: 3-Year Expenditures for the Waste-to-Energy Facility

	2021	2022	2023
Operating Cost	\$19,283,850	\$20,226,031	\$21,932,040
Fly Ash Disposal Costs	\$1,465,739	\$1,455,891	\$1,514,159
Bottom Ash Disposal Costs	\$1,560,862	\$1,767,871	\$2,219,025
Capital Project Debt Service Costs	\$831,723	\$859,075	\$1,021,203
Total Expenditure	\$23,142,174	\$24,308,868	\$26,686,427
Tonnage	241,531	233,052	236,278
Unit Cost / Tonne	\$95.81	\$104.31	\$112.95

Table 2 outlines Metro Vancouver's portion of offsetting revenues. Electrical revenue in 2023 was reduced due to the generator failing in September 2023. The generator has now been repaired and back in service as of early July 2024. Insurance claims related to the generator failure are still being resolved with insurance providers. Metal revenues are tied to the commodity value of the metal at any given time.

Table 2: Metro Vancouver's Portion of Electrical and Metal Revenues for the Waste-to-Energy Facility

	2021	2022	2023
Electrical Revenue	\$5,778,816	\$5,705,028	\$4,597,068
Metals Revenue	\$436,187	\$360,428	\$309,482
Tonnage	241,531	233,052	236,278
Unit Revenue / Tonne	\$25.73	\$26.03	\$20.77

Table 3 shows net cost per tonne for the Waste-to-Energy Facility from 2021 to 2023. An approximate \$22 per tonne increase in net costs was observed between 2021 and 2023.

Table 3: 3-Year Net Unit Cost for Operation and Maintenance of the Waste-to-Energy Facility

	2021	2022	2023
Unit Cost / Tonne (from Table 1)	\$95.81	\$104.31	\$112.95
Unit Revenue / Tonne (from Table 2)	\$25.73	\$26.03	\$20.77
Net Unit Cost / Tonne	\$70.08	\$78.28	\$92.18

Comparative Disposal Costs

Garbage is disposed primarily at the Waste-to-Energy Facility or the Vancouver Landfill. Garbage in excess of the local disposal capacity is managed through contingency disposal contracts where garbage is shipped to remote landfills. Table 4 shows disposal costs associated with the three disposal options. Each of the costs include disposal along with recycling and waste centre and transportation costs. Recycling and waste centre and transportation costs are different for each option because of the differences in the relative amount of garbage initially received at a recycling and waste centre. Waste-to-Energy has the lowest relative cost because the Waste-to-Energy Facility is located close to the urban core, and a large portion of the garbage received at that facility

is direct hauled there. Comparatively, all garbage sent to contingency disposal is initially received at a recycling and waste centre.

Vancouver landfill costs include all operating and capital costs allocated to Metro Vancouver, estimated closure and post closure costs, and royalties along with recycling and waste centre and transportation costs. The Waste-to-Energy Facility costs are noted above with the addition of recycling and waste centre and transportation costs. Contingency disposal costs are average contingency disposal contract costs plus recycling and waste centre costs.

Looking into the future, Waste-to-Energy Facility capital projects over the next five years are expected to add approximately \$24 per tonne in debt service costs by 2029, resulting in an increase of approximately 20% compared to current costs. District energy and biosolids capital are not included in that calculation given those projects will be funded through new revenues.

Table 4: Metro Vancouver Disposal Costs

	Vancouver Landfill	Metro Vancouver Waste-to-Energy Facility	Contingency Disposal
Net Costs / Tonne	\$129	\$120	\$249

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The Waste-to-Energy Facility net unit cost per tonne increased in 2023 relative to 2022 primarily due to reduced electricity revenue during the turbine generator failure and increased ash management and capital debt service costs. The Waste-to-Energy Facility continues to be a cost-effective regional disposal option. Unit costs are comparable to managing garbage at the Vancouver Landfill and approximately half the cost of managing garbage through contingency disposal contracts, where garbage is shipped to remote landfills for disposal. Both Waste-to-Energy Facility and the Vancouver Landfill are operated to their maximum annual capacity. The Waste-to-Energy Facility costs are funded through garbage tipping fees paid by all solid waste system users.

CONCLUSION

Expenditures in 2023 for the Waste-to-Energy Facility totaled \$25.7 million, resulting in an expenditure of \$112.95 per tonne. Metro Vancouver's portion of electrical and metals revenues totaled \$4.9 million or \$20.77 per tonne. Based on the plant processing 236,278 tonnes of municipal solid waste in 2023, the net unit cost was \$92.18 per tonne for operation and maintenance of the Waste-to-Energy Facility. Tipping fee revenues are accounted for separately and are not included in this analysis.

ATTACHMENTS

1. Presentation re: Waste-to-Energy Facility 2023 Financial Update

Attachment 1



Zero Waste Committee Meeting – September 5, 2024

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2023 SUMMARY – 3 YEAR EXPENDITURES

	2021	2022	2023
Operating Cost	\$19,283,850	\$20,226,031	\$21,932,040
Fly Ash Disposal Costs	\$1,465,739	\$1,455,891	\$1,514,159
Bottom Ash Disposal Costs	\$1,560,862	\$1,767,871	\$2,219,025
Capital Project Debt Service Costs-	\$831,723	\$859,075	\$1,021,203
Total Expenditure	\$23,142,174	\$24,308,868	\$26,686,427
Tonnage	241,531	233,052	236,278
Unit Cost / Tonne	\$95.81	\$104.31	\$112.95

- Costs increased from 2021 to 2023 due increased ash management and debt costs.
- Economizer replacement project has reduced unscheduled boiler outages and increased waste throughput.



Economizer Replacement Project

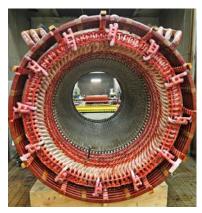
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2023 SUMMARY - ELECTRICAL AND METAL REVENUES

	2021	2022	2023
Electrical Revenue	\$5,778,816	\$5,705,028	\$4,597,068
Metals Revenue	\$436,187	\$360,428	\$309,482
Tonnage	241,531	233,052	236,278
Unit Revenue / Tonne	\$25.73	\$26.03	\$20.77

- Electrical revenue was reduced in 2023 due to failure of the generator.
- The generator has been repaired and was returned to service in July 2024.
- Metal revenues have decreased due to lower recycled metal prices.



Repaired Generator Stator

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3

2023 SUMMARY - NET UNIT COST

	2021	2022	2023
Unit Cost / Tonne (from Table 1)	\$95.81	\$104.31	\$112.95
Unit Revenue / Tonne (from Table 2)	\$25.73	\$26.03	\$20.77
Net Unit Cost / Tonne	\$70.08	\$78.28	\$92.18

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METRO VANCOUVER DISPOSAL COSTS

 Vancouver Landfill
 Metro Vancouver Waste-to-Energy Facility
 Contingency Disposal

 Net Costs / Tonne
 \$129
 \$120
 \$249

- Each cost includes disposal along with recycling and waste centre and transportation costs.
- Recycling and waste centre costs are different for each option due to the differences in the relative amount of garbage initially received at a recycling and waste centre.

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To: Zero Waste Committee

From: Nicole MacDonald, Program Manager, Solid Waste Regulation, Environmental

Regulation and Enforcement

Date: August 28, 2024 Meeting Date: September 5, 2024

Subject: Appointment of Enforcement Officers

RECOMMENDATION

That the GVS&DD Board:

- a) pursuant to the *Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996* and the *Environmental Management Act* appoint Metro Vancouver employees Loretta Tang and Sean Hronksy as officers; and
- b) pursuant to Section 28 of the *Offence Act* for the purpose of serving summons for alleged violations under the *Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996*, appoint Metro Vancouver employees Loretta Tang and Sean Hronsky.

EXECUTIVE SUMMARY

Recent changes in staffing have resulted in a need to update staff appointments as Greater Vancouver Sewerage and Drainage District (GVS&DD) Board-designated officers under the *Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996*, the *Environmental Management Act*, and the *Offence Act*. Staffing changes are a result of recruitments for vacant positions. Staff recommend that the GVS&DD Board appoint staff accordingly.

PURPOSE

To appoint two Metro Vancouver employees as Board-designated officers.

BACKGROUND

Metro Vancouver's Solid Waste Regulatory Program supports the goals of the *Integrated Solid Waste and Resource Management Plan* by regulating the management of municipal solid waste and recyclable material at privately operated facilities.

Employment status changes for Metro Vancouver environmental regulatory staff have resulted in a need to update staff appointments to ensure appropriate authority to advance solid waste management goals. Staffing changes are a result of recruitments for vacant positions. The *Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996* grants authority to the Board-designated officers.

ROLE OF ENFORCEMENT OFFICERS

Officers may enter property, inspect works, and obtain records and other information to promote compliance with the *Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996*.

The Offence Act allows regional districts to appoint enforcement officers for the purpose of serving summons for bylaw violations. Officers, if appointed for that purpose, may serve a summons in respect of alleged offences under the Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996.

ALTERNATIVES

- 1. That the GVS&DD Board:
 - a) pursuant to the *Greater Vancouver Sewerage and Drainage District Municipal Solid Waste* and *Recyclable Material Regulatory Bylaw No. 181, 1996* and the *Environmental Management Act* appoint Metro Vancouver employees Loretta Tang and Sean Hronksy as officers; and
 - b) pursuant to Section 28 of the Offence Act for the purpose of serving summons for alleged violations under the *Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996*, appoint Metro Vancouver employees Loretta Tang and Sean Hronsky.
- 2. That the GVS&DD Board receive for information the report dated August 28, 2024, titled "Appointment of Enforcement Officers" and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

There are no financial implications as the GVS&DD appointees are already on staff.

CONCLUSION

Recent changes in staffing have resulted in a need to update staff appointments as the GVS&DD Board-designated officers under the *Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996*, and the *Offence Act*. Staff recommend that the GVS&DD Board adopt Alternative 1.

67189847



To: Zero Waste Committee

From: Andrew Doi, Environmental Planner, Solid Waste Services

Date: August 27, 2024 Meeting Date: September 5, 2024

Subject: Expanding Product Categories in Extended Producer Responsibility

RECOMMENDATION

That the Greater Vancouver Sewerage & Drainage District Board write to the Minister of Environment and Climate Change Strategy, requesting that updates to the *B.C. Recycling Regulation* be expedited to include mattresses, compressed canisters, fire extinguishers, medical sharps, and other products to ensure these materials can be included in the provincial extended producer responsibility program as soon as possible.

EXECUTIVE SUMMARY

The Advancing Recycling in B.C. Extended Producer Responsibility Five-Year Action Plan 2021-2026 (Action Plan) highlights past successes and achievements in extended producer responsibility in B.C. and identifies key priorities for new obligated product categories to be addressed by extended producer responsibility programs. The Action Plan included regulating mattresses, compressed canisters, fire extinguishers, medical sharps and other products in the provincial extended producer responsibility program by 2025. In summer 2024, Metro Vancouver staff and other interested parties were informed that updates to the B.C. Recycling Regulation to include these materials have been delayed. Consequently, these new materials will not be included in the extended producer responsibility program by 2025 as originally contemplated. As a result, continued advocacy though a letter to the Minister of Environment and Climate Change Strategy is important to identify the need for swift action and reiterate the costs borne by local government to manage materials that could be addressed through extended producer responsibility.

PURPOSE

To provide the Zero Waste Committee and Greater Vancouver Sewerage and Drainage District Board with an update and the opportunity to consider writing a letter to the B.C. Government related to the implementation delay of the *Advancing Recycling in B.C. Extended Producer Responsibility Five-Year Action Plan 2021-2026*.

BACKGROUND

On April 21, 2020, the Greater Vancouver Sewerage and Drainage District Board Chair and Zero Waste Committee Chair sent a letter to the Minister of Environment and Climate Change Strategy requesting mattresses be regulated through extended producer responsibility and to identify the costs expended by member jurisdictions in managing mattresses for recycling. In 2021, the Ministry of Environment and Climate Change Strategy published the *Advancing Recycling in B.C. Extended Producer Responsibility Five-Year Action Plan 2021-2026* (Action Plan). The Action Plan highlights past successes and achievements in extended producer responsibility in B.C. and identifies key priority actions in the years ahead. Metro Vancouver and member jurisdiction staff participated in

the consultation for the development of this Action Plan and reported progress on this provincial file at the October 15, 2021, May 23, 2023, and June 15, 2023, Zero Waste Committee meetings.

ADVANCING RECYCLING IN B.C. EXTENDED PRODUCER RESPONSIBILITY FIVE-YEAR ACTION PLAN 2021-2026

The Action Plan identifies a number of key priority activities for the Ministry of Environment and Climate Change Strategy, including expansion of the number of product categories obligated in the *B.C. Recycling Regulation*, evaluation of policy approaches to address recycling of non-residential packaging and paper product, contributions to the circular economy by addressing plastic and marine debris, regulation of the distribution of single-use plastics, and allocation of funding to assist organizations pursuing innovations in plastics recycling in manufacturing.

Implementation Timeline for Expanding Product Categories in Extended Producer Responsibility Specifically, the Action Plan developed a timeline for addressing the commitments identified below.

- Shifting containers of milk and milk alternatives from the Packaging and Paper Product Category to the Beverage Container Category on February 1, 2022.
- Adding single-use items and packaging-like products (e.g., straws, sandwich bags, party supplies, etc.) to the Packaging and Paper Product Category on January 1, 2023.
- Amendments to the B.C. Recycling Regulation to include a new product category for mattresses and updates to existing categories for moderately hazardous products, including compressed air canisters, fire extinguishers, and medical sharps, were expected in late 2023. The anticipated launch date for extended producer responsibility plans and programs for mattresses, compressed canisters, fire extinguishers, and medical sharps was 2025. Extended producer responsibility plans and programs for hybrid and electric vehicle batteries, along with other battery types, are expected to be operational in 2026. Emerging electronics and additional moderately hazardous product definitions are expected to be revised and included in regulatory amendments in 2026.

2024 Implementation Timeline Update

In summer 2024, Metro Vancouver staff and other interested parties were informed by representatives of the Ministry of Environment and Climate Change Strategy that updates to the *B.C. Recycling Regulation* to include mattresses, compressed canisters, fire extinguishers, and medical sharps have been delayed. Consequently, the products will not be regulated as part of extended producer responsibility in 2025 as originally expected. Ministry staff indicated that updates to the *B.C. Recycling Regulation* could occur in 2025.

ALTERNATIVES

1. That the Greater Vancouver Sewerage & Drainage District Board write to the Minister of Environment and Climate Change Strategy, requesting that updates to the *B.C. Recycling Regulation* be expedited to include mattresses, compressed canisters, fire extinguishers, medical sharps, and other products to ensure these materials can be included in the provincial extended producer responsibility program as soon as possible.

2. That the Zero Waste Committee receive for information the report dated August 27, 2024, titled "Expanding Product Categories in Extended Producer Responsibility" and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

Products such as mattresses, compressed canisters, fire extinguishers, and medical sharps have previously been identified by local governments though research studies, Ministry of Environment and Climate Change Strategy consultation events, and Union of BC Municipalities resolutions. Many of these product categories are problematic and costly for local governments to manage at end-of-life. Delays in the implementation of extended producer responsibility programs for these priority product categories means these operational costs continue to be borne by local governments. For example, costs for end-of-life management of moderately hazardous products are paid by Metro Vancouver and similarly for member jurisdictions which operate recycling depots.

Mattress collection and recycling costs for member jurisdictions also include large-item pick-up programs and cleaning up illegal dumping occurrences. In 2023, Metro Vancouver member municipalities spent \$6 million on illegal dumping collection and bulky item pick-up programs. Metro Vancouver solid waste facilities' customers subsidize the cost of mattress recycling by more than \$1 million per year to minimize the potential for the cost to recycle mattresses being a barrier for residents, resulting in additional illegal dumping. Mattresses continue to be one of the most common illegally dumped products and/or items collected in bulky item pick-up programs.

CONCLUSION

The Advancing Recycling in B.C. Extended Producer Responsibility Five-Year Action Plan 2021-2026 identifies key priorities for new obligated product categories to be addressed by extended producer responsibility programs. Specific commitments to operationalize the new product categories are highlighted in the Action Plan. In summer 2024, Metro Vancouver staff and other interested parties were informed that the regulatory amendment timeline have been delayed, resulting in ongoing costs to member municipalities, and Metro Vancouver solid waste system customers. As a result, continued advocacy though a letter to the Minister of Environment and Climate Change Strategy is important to identify the need to expedite the inclusion of these materials in extended producer responsibility programs.

REFERENCES

1. Advancing Recycling in B.C. Extended Producer Responsibility Five-Year Action Plan 2021-2026

69543775



To: Zero Waste Committee

From: Paul Henderson, General Manager, Solid Waste Services

Date: August 29, 2024 Meeting Date: September 5, 2024

Subject: Manager's Report

RECOMMENDATION

That the Zero Waste Committee receive for information the report dated August 29, 2024, titled "Manager's Report".

BC Single-Use and Plastic Waste Prevention Update

On July 15, 2024, the Government of BC province-wide plastic bag ban came into effect. Metro Vancouver and member jurisdictions had advocated for a province-wide approach for single-use packaging to reduce the administrative burden on local governments, reduce consumer confusion, and increase efficiency for business. The new regulation includes requirements for a minimum charge of \$2 for reusable bags and \$0.25 for paper bags. Reusable bags must be designed for reuse and be able to be washed at least 100 times. Paper bags must have recycled content to minimize their environmental impact. There are certain exceptions to the regulation such as no required fee for bags used for prescription drugs, drive-thru or delivery, and in-store for fruits and vegetables.

Metro Vancouver continues to work with staff from the province and member jurisdictions to encourage residents to bring the reusable bags that they already own, as that is the lowest cost and lowest environmental impact option.

Textiles Update

At its meeting on July 4, 2024, the Zero Waste Committee requested more information about per capita textiles disposal trends. Table 1 shows that overall textiles disposed per capita have been relatively flat. The increase in 2020 can be directly attributed to Covid-19 donation restrictions. The increase in 2023 requires additional years of data collection to confirm if it is an emerging trend or an anomaly given the dramatic decrease in clothing and increase in household linens.

Table 1 – Textiles Disposed (kg per capita)

	2018	2020	2021	2022	2023
Clothing	6.29	7.71	6.24	7.75	3.57
Household linens	6.29	5.80	7.51	4.02	10.34
Shoes	1.05	2.81	1.24	2.59	2.03
Leather	0.35	1.34	0.00	0.22	0.57
Reusable Bags	0.00	0.76	0.32	0.41	0.51
Other ¹	3.84	5.68	2.02	2.03	5.84
Total	17.82	24.10	17.33	17.02	22.84

¹ Other consists of items such as stuffed toys and animals, masks, pet collars and leashes made of synthetic materials.

In addition to tracking disposal trends, Metro Vancouver staff collaborate with industry and other levels of government on textiles waste reduction through participation in the Canadian Circular Textiles Consortium. Environment and Climate Change Canada released a discussion paper on July 4, 2024, largely informed by the work of the Canadian Circular Textiles Consortium. The paper asked how best to address the rise in clothing waste. Eighty billion new pieces of clothing are made globally each year — most of which are made from plastic, such as polyester. Staff prepared a response which incorporated input from member jurisdictions expressing support for Environment and Climate Change Canada to prioritize textiles waste reduction in Canada. In addition, staff have recently written letters of support for new regional textiles recyclers seeking funding from the BC Plastic Action Fund, the BC Manufacturing Jobs Fund, and the NGen Sustainable Manufacturing Challenge.

Reusable household linens and clothing can be dropped off at Metro Vancouver recycling and waste centres. <u>Metro Vancouver Recycles</u> provides a full list of locations across the region where residents can drop off reusable textiles.

Solid Waste Management Plan Public Engagement – Idea Generation Phase

Public engagement for the idea generation phase of the solid waste management plan update begins this fall. The purpose of this engagement is to learn about the public's priorities when thinking about solid waste management in the present and future and to gather ideas for potential strategies and actions for inclusion in an updated plan. These ideas will be further evaluated in subsequent phases. Metro Vancouver is committed to delivering a comprehensive and inclusive engagement program. Opportunities for the public to engage will include:

- Completing an online questionnaire
- Visiting a booth at upcoming community events
- Presenting to the Zero Waste Committee and Solid Waste Management Plan Public/Technical Advisory Committee
- Presenting to the Solid Waste Management Plan Consultation and Engagement Panel
- Sharing ideas and feedback by email

In addition to the opportunities above, Metro Vancouver is actively reaching out to key sectors such as the food industry, construction and demolition, tourism and hospitality, healthcare, multi-family residences, and seniors, to engage through meetings, focus groups, and interviews. Metro Vancouver is also providing support and funding to not-for-profit organizations to run engagement activities with their members and networks.

Letters notifying member jurisdictions about the idea generation phase of engagement were sent in June 2024. Metro Vancouver will work with member jurisdiction staff through existing member advisory committees to receive input.

Tipping Fee Bylaw – Generator Levy – Notice of Bylaw Violation Upcoming EngagementEngagement will take place in the coming months on proposed amendments to the *Greater Vancouver Sewerage and Drainage District Notice of Bylaw Violation Enforcement and Dispute*Adjudication Bylaw No. 378, 2024, as amended (Bylaw 378). The bylaw amendments would add the

ability to issue notices of bylaw violation for contraventions of the Tipping Fee Bylaw. The Tipping Fee Bylaw sets garbage and recycling fees at Metro Vancouver solid waste facilities, lists banned recyclable and hazardous materials, and establishes the requirements for the generator levy. Expected provisions relate primarily to generator levy requirements such as records management, making records available for inspection and copying, and requirements to remit the generator levy to Metro Vancouver.

The GVS&DD Board approved amendments to Bylaw 378 to incorporate notices of bylaw violation for violations of *Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996* on July 26, 2024. Bylaw 378 designates bylaw contraventions that may be enforced through notice of bylaw violation penalties up to \$500 per occurrence, and establishes a process for dispute adjudication.

Staff plan to develop and provide information to stakeholders, including elements of the proposed bylaw amendments. Members of the waste and recycling industry and other affected parties will be provided with an opportunity to submit comments and questions prior to a proposed amendment bylaw being drafted and brought forward to the Zero Waste Committee and Board for consideration.

2024 Smart Waste Program Report

The <u>Smart Waste Program 2024 Annual Testing Report</u> is now published on the Metro Vancouver website (available by visiting metrovancouver.org and searching for '2024 smart waste report').

The smart waste program involves depositing location-based electronic devices in publicly accessible, multi-family residential and commercial/institutional garbage containers. The program will help assess if the generator levy is being appropriately collected and remitted, and enhance understanding of the movement of waste around the region. A report about the smart waste program was initially provided to the Zero Waste Committee for information in July 2023. Metro Vancouver conducted engagement in the fall of 2023, incorporated engagement feedback in a draft smart waste program implementation plan and circulated the draft for review and comment in the spring of 2024, before finalizing the plan and initiating annual testing.

Waste-to-Energy District Energy System – BC Utilities Commission Exemption Approved

On April 4, 2024, Metro Vancouver submitted an application to the BC Utilities Commission (BCUC) for an exemption from Part 3 of the Utilities Commission Act for sale of heat from the Waste-to-Energy Facility to River District Energy. This exemption was granted on August 20, 2024. With the exemption, Metro Vancouver will be able to sell heat to River District Energy without seeking BCUC approval for rates. Rates and other terms and conditions of the sale of energy are defined in the contract negotiated between Metro Vancouver and River District Energy. This exemption only applies to energy sales to River District Energy; any future contracts entered into by Metro Vancouver would require separate exemptions from the BCUC.

Waste-to-Energy Facility Operational Certificate Amendment

Metro Vancouver is initiating engagement with First Nations and interested parties on proposed amendments to the Waste-to-Energy Facility operational certificate.

The operational certificate for Metro Vancouver's Waste-to-Energy Facility includes requirements to reduce emission concentrations of hydrogen chloride and sulfur dioxide by March 2025 (previously extended from December 2022). Ambient air monitoring has shown that ambient air concentrations of these parameters are well below ambient air objectives and less than predicted by the modelling. Additionally, the Waste-to-Energy Facility does not appear to be the primary driver of observed hydrogen chloride concentrations. Capital upgrades that would be required to meet the specified emission concentrations are estimated at approximately \$100 million.

Metro Vancouver has applied to the Ministry of Environment and Climate Change Strategy for a three-year extension (to March 2028) to interim discharge limits in the Operational Certificate for hydrogen chloride and sulfur dioxide emission concentrations. The extension would allow additional ambient air quality monitoring and allow time to develop a proposed new Operational Certificate provision whereby emission reductions would be required if ambient air monitoring showed impacts from Waste-to-Energy Facility emissions. Updates on this project were provided to the Zero Waste Committee in May and July 2024.

Zero Waste Committee Work Plan

Attachment 1 to this report sets out the Committee's Work Plan for 2024. The status of the Committee's key priorities is shown as pending, in progress, or complete together with the quarter that each is expected to be considered by the Committee.

ATTACHMENTS

1. Zero Waste Committee Work Plan

69388122

Zero Waste Committee 2024 Work Plan

Report Date: August 29, 2024

Priorities

1st Quarter	Status
2023 Holiday Waste Reduction Campaign Results	Complete
2023 Zero Waste Conference Report	Complete
Solid Waste Management Plan: Vision and Guiding Principles	Complete
National Zero Waste Council 2023 Accomplishments and 2024 Projects	Complete
2022 Solid Waste and Recycling Biennial Report	Complete
2nd Quarter	Status
Tipping Fee Bylaw Updates	Complete
2023 Disposal Ban Program Results	Complete
GVSⅅ Notice of Bylaw Violation Enforcement and Dispute Adjudication Bylaw	Complete
2023 Waste-to-Energy Facility Financial Summary	In-Progress
2023 Waste Composition Data	Complete
2023 – 2024 Metro Vancouver Engagement with the Love Food Hate Waste Canada Campaign	Complete
2024 Food Scraps Recycling Campaign Results	Complete
Waste-to-Energy Facility District Energy System Update	Complete
2024 Think Thrice Textiles Waste Reduction Campaign Results	Complete
Solid Waste Services 2023 Year-End Financial Performance Results Review	Complete
Solid Waste Services 2024 Financial Performance Reporting and Annual Forecast #1	Complete
Waste-to-Energy Facility Biosolids Management System Contract	Pending
3rd Quarter	Status
2023 Waste-to-Energy Facility Environmental Performance Summary	Complete
2024 National Zero Waste Council Projects	Pending
Recycling and Waste Centre Reuse Scale-Up	Pending
Solid Waste Services 2024 Financial Performance Reporting and Annual Forecast #2	Pending
Repair Events, Reuse Programs, and Regional Food Recovery Network	Pending
Solid Waste Management Plan: Idea Generation	In-Progress
Multi-Family Residential Waste Prevention	Pending
4th Quarter	Status
2024 Single-Use Item Reduction Campaign Results	Pending
Solid Waste Services Annual Budget and 5-Year Financial Plan	Pending
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Solid Waste Services 2024 Financial Performance Reporting and Annual Forecast #3	Pending
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