

SOLID WASTE MANAGEMENT PLAN PUBLIC/TECHNICAL ADVISORY COMMITTEE

REGULAR MEETING

Friday, February 23, 2024 3:00 pm – 5:30 pm Online meeting Zoom teleconference

AGENDA

	ITEMS
1.	WELCOME
2.	AGENDA
3.	MEETING NOTES – November 16, 2023 (Attachment 1)
4.	ACTION/STANDING ITEMS
	4.1 Action tracker (Attachment 2)
	4.2 Incoming/outgoing communication (Attachment 3-5)
5.	OTHER BUSINESS
	5.1 2024 Draft PTAC Work Plan and Working Groups Discussion (Attachment 6) For Input/feedback
	Speaker: Director Kirby-Yung, Chair
	5.2 Discussion on PTAC Working Group Topics (Attachment 7) For Input/feedback
	Speaker: Director Kirby-Yung, Chair
	5.3 PTAC Working Groups Draft Terms of Reference (Attachment 8) For Input/feedback
	Speaker: Director Kirby-Yung, Chair
6.	METRO VANCOUVER UPDATES
	6.1 Integrated Solid Waste and Resource Management Plan Biennial Report For Input/Feedback
	Speaker: Terry Fulton, Senior Project Engineer, Metro Vancouver



6.2 Updates on Technical Studies:

- Concrete and Asphalt Recycling Opportunities Scope Review (Attachment 9)
- Residuals Management Options Scope Review (Attachment 10)

For Information

Speaker: Paul Henderson, General Manager, Solid Waste Services

6.3 Zero Waste Committee Updates

For Information

Speaker: Paul Henderson, General Manager, Solid Waste Services

7. INFORMATION ITEMS

7.1 Regional Waste Flows January (Attachment 11)

Attachment 1: Meeting notes – November 16, 2023 – Solid Waste Management Plan Public/Technical Advisory Committee

Attachment 2: Action Tracker

Attachment 3: Communication from WMABC to Metro Vancouver on December 11, 2023

Attachment 4: Communication from WMABC to Metro Vancouver on January 17, 2024

Attachment 5: Communication from Metro Vancouver to WMABC on January 24, 2024

Attachment 6: Public/Technical Advisory Committee Draft 2024 Work Plan

Attachment 7: Public/Technical Advisory Committee Proposed Topics for Working Groups

Attachment 8: Public/Technical Advisory Committee Working Groups Draft Terms of Reference

Attachment 9: Concrete and Asphalt Recycling Opportunities Scope Review Presentation

Attachment 10: Residuals Management Options Scope Review Presentation

Attachment 11: Regional Waste Flows January

SOLID WASTE MANAGEMENT PLAN PUBLIC/TECHNICAL ADVISORY COMMITTEE

Thursday, November 16, 2023 Zoom Meeting 3:00 pm – 5:30 pm

Meeting Notes

Attendees: Director Sarah Kirby-Yung, Chair; Director Craig Hodge, Vice-Chair; Alice Henry, Ben Liegey, Bill Chan, Brianne De Man, Cody Irwin, Daniel Rotman, Doug Schell, Grant Hankins, Hunter Bergen, Jaye-Jay Berggren, John Doherty, Kevin Huang, Lori Bryan, Louise Schwarz, Love-Ese Chile, Lyndsay Poaps, Michael Zarbl, Raman Johal, Sue Maxwell, Ulwiana Mehta-Malhotra, Tara Immell, William Selten.

Absent: Brenda Martens, Christian Dietrich, Jake Turek, Jamie Kaminski, Jessica Savoy, Matthew Morin, Sara Larter, Yasmin Abraham.

Metro Vancouver Staff: Paul Henderson, Chris Allan, Karen Storry, Nanette van Doorn, Samantha Joy, Stephanie Liu, Terry Fulton, Brooke Atkinson

1.	INTRODUCTIONS • Meeting started at 3:02pm	Chair
	 Welcome from the Chair Director Kirby-Yung expressed gratitude for the attendees' commitment. Welcomed Lori Bryan, the newly elected Co-chair of the Solid Waste and Recycling Industry Advisory Committee, introducing her extensive background in the solid waste industry. The elected Co-chair of the Industry Advisory Committee is automatically a member of the Public/Technical Advisory Committee. 	Chair
2.	• Reviewed the November 16, 2023 meeting agenda.	Chair
3.	MEETING NOTES – September 7, 2023 ● Reviewed the <u>September 7, 2023 meeting notes</u> .	Chair
4.	ACTION/STANDING ITEMS	Chair
	4.1 Action tracker Action items from previous meetings:	



	 Performance metrics review scope of work was provided as an information item to the committee in the agenda package for today's meeting and staff will be reporting back on the results of the study once completed in 2024. Sustainable food service packaging guide to be presented to the committee at today's meeting by Karen Storry. The action item to 'Create a lessons learned repository on the repair and reuse initiatives that Metro Vancouver has conducted to date and share with the Public/Technical Advisory Committee, will be rolled over to 2024 and staff will update the committee when it has been drafted. Incoming/outgoing communication No incoming/outgoing communication was shared by members 	
5.	METRO VANCOUVER UPDATES	
	 5.1 Solid Waste Management Plan Update – Vision and Guiding Principles Engagement and Next Steps A status update on public engagement was provided, including an overview of the engagement program and activities, and how many people participated in engagement. On December 1 there is an opportunity to present to the Independent Consultation and Engagement Panel – members can still sign up to participate. Next steps for this phase of the plan update are to develop the engagement summary report, and provide a draft vision statement and guiding principles to First Nations, member jurisdictions, the Public/Technical Advisory Committee, and Industry Advisory Committee for comment, prior to presenting them to the Zero Waste Committee and Board for consideration. 	Stephanie Liu, Metro Vancouver
	 5.2 Sustainable Foodservice Purchasing Guide An update was provided on the tools that Metro Vancouver has been working on for a sustainable foodservice purchasing guide. The sustainable foodservice packaging guide and a summary of federal and provincial single-use items regulations was provided to members in the agenda package. Past waste composition studies indicate that almost 500 single use items per person per year are disposed (2022). Provincial regulations for single-use items are in effect starting December 2023. Work is being done to educate small businesses to know which items are compliant to regulations. Recycling Council of BC (RCBC) talked about collaborative next steps with Metro Vancouver including the Single Use Plastics Alternative Guide. Phase 1 of this project will include the review of available tools and suggest improvements based on interviews with leading jurisdictions and feedback from targeted businesses. Phase 2, planned for 2024, will include developing 	Karen Storry, Metro Vancouver Lyndsay Poaps, Recycling Council of BC

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additional tools and resources to help target businesses adopt the most sustainable, low-waste food service ware practical.

Action Items:

• Members to email Karen Storry at <u>Karen.storry@metrovancouver.org</u> with questions or comments.

Members discussed:

- If Metro Vancouver has direct regulation authority over composting and
 waste stations in malls. Metro Vancouver responded that it does not have
 direct authority over this and Metro Vancouver's regulatory authority
 related to encouraging recycling by generators is primarily through disposal
 bans at regional solid waste facilities (Recycling and Waste Centres along
 with the Waste-to-Energy Facility).
- If Metro Vancouver can come up with a model bylaw for the member municipalities that would require 3 stream material management. Metro Vancouver's response is that it is working on designing a pilot that will encourage customers to maximize recycling through disposal ban surcharge waivers where haulers or recycling facility operators demonstrate they are taking all reasonable actions to encourage recycling.
- What communication efforts are there to educate businesses on compostable plastics and how can it be enforced effectively. Metro Vancouver addressed the question that the Province is working hard on communication, and there's a single-use item reduction tool kit to help businesses. Metro Vancouver is also working with the Recycling Council of British Columbia to communicate the new requirements.
- Director Kirby-Yung acknowledged that there will be a transition period with the new regulation and ongoing education is expected.
- A member commented on having multiple streams of recycling and he thinks this current system relies on haulers and collection points being reliable and effective, which may not always be the case.

6. OTHER BUSINESS

6.1 Zero Waste Committee Updates

- Paul Henderson provided an update on the agenda items from the October
 12, 2023 Zero Waste Committee meeting, including:
 - Scaling up regional reuse repair and food recovery
 - o 2024 Budget and 5-Year Financial Plan
 - North Surrey and Langley recycling depots development
 - Notice of Bylaw Violation and Dispute Adjudication bylaw engagement related to the existing facility licensing bylaw, Bylaw 181
 - District Energy Waste-to-Energy Facility

Paul Henderson, Metro Vancouver

Chair

6.2 Member Discussion on PTAC Meeting Involvement for 2024

- Members were asked to rank topics of interest based on previous meeting conversations, to be included in the 2024 draft work plan.
- The focus of ranking topics was to create more opportunities for committee member contributions, sharing information, and discussing challenges for recycling systems.
- Participants moved into breakout rooms to share ideas on enhancing meeting processes and involvement.
- Detailed notes on each breakout room are included in Attachment 1.
- Breakout Groups reported back to the main group with the following:
 - There is a need to understand Metro Vancouver's authority, to help inform the committee's advice on actions Metro Vancouver can take to advance waste reduction, and areas where Metro Vancouver can serve other roles where it does not have direct authority (e.g. advocacy, facilitation, convening).
 - Request to create more opportunities for members to highlight what they are doing in their organizations.
 - Need for a clear process for committee members to actively contribute to problem solving with respect to solid waste management challenges in the region, by sharing their technical expertise and lived experiences.
 - Importance of breakout sessions for discussions, having guest presenters on relevant topics, and collaborating on educational materials.
 - Opportunities for less structured small group meetings on particular topic areas
 - Other ideas included online active document for collective learning, and collaboration with Metro Vancouver staff on specific issues.

Action Items:

• 2024 draft work plan to be presented to members at the first meeting of 2024.

6.3 2024 Meeting Planning

- Chair reviewed purpose of PTAC and terms of reference
- 2024 Meeting Logistics:
 - Discussion on planning and scheduling committee meetings for 2024.
 - Used MentiMeter to gather input on the number of meetings and preferred timings and months to not hold meetings.
 - Consideration of scheduling challenges and preferences for accessibility.

Action Item:

Chair

	2024 meeting dates will be sent to members in December.	
	Members were asked to debrief on any feedback or experiences at the Zero Waste Conference 2023 (Nov 1-2). Members discussed:	Chair
	 Praise for the textile workshop format – particularly the "fishbowl" style with discussion and multiple speakers sharing perspectives. Suggestion of structured networking with set tables or the option to switch tables for more effective networking. A member looked forward to the plastics conversation but was disappointed because the presentation focused more on the cost than on long-term solutions. Enjoyed the workshops and the chance to ideate – The foodwaste Solve session was interesting. Disappointed in the infrastructure presentation since it didn't seem to represent a lot of diversity with the type of presenters chosen. The panel that discussed the challenges of addressing producer responsibility needed more diverse perspectives to challenge industry norms. Appreciation for the keynote speakers and food waste workshop. Suggestion of more time for workshops, and recommended exploring virtual networking options. Suggested aligning food offerings with sustainability goals, providing specific networking space, and measuring the conference's overall carbon footprint. 	
7.	INFORMATION ITEMS 7.1 Regional Waste Flows October 7.2 Public/Technical Advisory Committee 2023 Draft Annual Work Plan 7.3 Metro Vancouver Regional District Board Report – External Agency Status Report for the Solid Waste Management Plan Public/Technical Advisory Committee 7.4 Metro Vancouver Regional District Board Report – External Agency Status Report for the Solid Waste and Recycling Industry Advisory Committee 7.5 Metro Vancouver Regional District Board Report – External Agency Status Report for the National Zero Waste Council 7.6 Performance Metrics Review Scope of Work	
8.	ADJOURNMENT ◆ Adjourned at 4:54pm	Chair

Solid Waste Management Plan Public/Technical Advisory Committee				
November 15, 2023				
PT	PTAC Meeting Involvement for 2024 Group Notes			
Group 1	 Demonstrate how PTAC input directly impacts decisions or programs and articulate that connection more clearly Move faster Be involved in actions now even as we work on the plan update Start exploring potential solutions to problems, and lean on lived experience of the group to assess suitability of those potential solutions/ideas Align zero waste work with climate policies – have different decision makers aligned and talk Understanding what levers/authority Metro Vancouver actually has – help inform discussion Where Metro Vancouver doesn't have control, can we endorse/advocate work of other governments and organizations that do have the ability/control More in person meetings 			
	Inspiration from what is done in other parts of the world			
Group 2	 Education, specifically to schools and businesses – How can we educate the public and get these conversations happening with as many people as possible? Accountability – how do we factor that into things like subsidized housing 			
	- is there an accountability agreement that could be created that would improve buy-in?			
	 Education because we have so many people who just don't understand why we are doing this or why it's important 			
	 Establish and communicate the connection between waste reduction and climate issues in general 			
	 How can we be more involved in creating the policies and enforcing them from a policy perspective we all have different specialties. Can we leverage the talents of the committee to workshop some of these new policies? We can work better in a group that has working groups or sub- committees that make use of people's skills. We need targets and need to know where to go. We don't need any more updates that aren't linked to targets. Where we are now, where we are going, and how are we going to get there? 			
	Accountability and enforcement of policies			

- Hard and big decisions have to be made consumers will purchase what
 is available to them we want to start supporting and talking about the
 hard decisions
- More clarity about the purpose of this committee since we are still very much in the planning stage. What should be the focus and how should it be focused on?
- Specialized working groups so that we can delve into topics more deeply and with more relevant lived and professional experience
- Gain an understanding of the sphere of influence that Metro Vancouver truly has and apply that to policy planning
- Build a cohesive framework how do the actions and the policy connect to outcomes? When I think about one of the topics that were being discussed I don't understand how single-use items connects to the SWMP options. We talked about categorization and prioritization. How much worth does each idea have?
- If we are going to offer our expertise we need to have things that are issues-based and that already exist somewhere within the current policies
- Get information that is presented as it exists with the policy framework and then decide if it is important
- Introduce the notion of what it's like to use these systems ie. people who live in multi-unit dwellings. We should be asking what people actually care about in terms of lived experiences

Group 3

- Breakout rooms are nice to have
- Consider particular groups
 - put together on topics of interest
 - o cross-sectors need to be done for all the perspectives
- Need more discussion and input formats
- Balance between overview of topics and detailed working groups
- For policies like single-use item reduction- different jurisdictional coordination between cities, region, province, federal
 - What can we do to streamline the process for residents?
 - Technical questions, purchasing questions
- Interest in discussion of role of industry and the topic that came up around commercial sector challenges and the need for transparency
- Non-industry members appreciate the learning opportunities to support engagement
- Culture shift
- Broader discussion and collaboration on educational materials
- Definition of recycling under provincial Environmental Management Act includes incineration
- Overview of the contents of the plan update but also more detailed information in breakout groups
- Discussion around policies that allow for investment in recycling processing
- New buildings consider:

	 Protecting the space for recycling Accommodating the garbage room and truck access WorkSafe BC requirements Need to have the architects at the table Guest presenters from processors
Group 4	 Consider starting an active document to put thoughts in between meetings Challenges/roadblocks from businesses that MV could help address What Metro Vancouver is doing to align themselves with Extended Producer Responsibility Explore smaller groups as issue areas emerge in order to complete deeper work in the area One or two less structured meetings to get into deeper discussion 'Optional meetings' not broadcast to public Leverage expertise of members Provide time and place for conversations Less formal discussions Access to staff to participate in discussions Would like opportunity to influence Metro Vancouver on SWMP eg. what do we want Metro Vancouver working on, what can Metro Vancouver actually do, what good examples are happening in other places in the world? Plan doesn't need to focus necessarily on 'what can Metro Vancouver do' because of influence Metro Vancouver has/funding of organizations such as the NZWC PTAC should be forward thinking vs. responsive PTAC can help advocate for change Expand group to reach small business



2024 SOLID WASTE MANAGEMENT PLAN PUBLIC/TECHNICAL ADVISORY COMMITTEE ACTION TRACKER

To be updated after every Public/Technical Advisory Committee (PTAC) meeting to keep track of the actions or tasks that Metro Vancouver staff are responsible for.

Meeting Date	Requested Action/Item	Assigned Staff	Status
June 1, 2023	Schedule Engagement Panel to attend a future PTAC meeting	Stephanie Liu	Pending
	Communicate opportunity for PTAC members to provide ideas for invited presentations at future meetings	Staff	Ongoing
September 7, 2023	Metro Vancouver to share lessons learned from innovative Metro Vancouver repair and reuse initiatives with PTAC	Karen Storry	In progress
November 16, 2023	Metro Vancouver to provide more information about the potential pilot program to waive Disposal Ban surcharges for haulers that demonstrate they have encouraged their customers to recycle materials	Lynne Vidler	Added to work plan



Greater Vancouver Sewage and Drainage District Attention: Chair & Council Metrotower III, 4515 Central Boulevard, Burnaby, BC, V5H 0C6

December 11, 2023

Subject: Concerns Regarding the Functioning of the IAC Committee and the Solid Waste Management Plan Consultation Process

Dear Board of Directors,

The purpose of this letter is to express concerns regarding the Industry Advisory Committee (IAC), the process in the way it is functioning and to emphasize the importance of prioritizing the consultation on the solid waste management plan and those issues that are part of the work plan that should be developed and agreed to by the members of the IAC based on the terms of reference of the IAC.

First, we would like to acknowledge Metro Vancouver's efforts to promote sustainable practices. Along with this, it is important to acknowledge the crucial role the private Waste and Recycling Industry has played in servicing the Region, from providing hauling services of the various material streams, sorting, processing & brokering these materials, through private investments in waste management strategies and infrastructure. Metro Vancouver has been able to achieve the diversion results it has because of innovation, investment, and competition in the marketplace. Diversion rates will increase if and only if there is good public regulation that allows for continued competition in compliance with the Competition Bureau of Canada regulations, recommendations and statements allowing the required innovation, and investment to take place. For the past several years, the recycling market has stalled due to regulatory uncertainty from the extreme overreach.

A Dysfunctional Process

From our and other industry members perspective, the IAC has not been functioning as effectively as it should be, but more importantly, not how it was intended coming out of the Elevate process with the Province, Metro Vancouver and the WMABC. Also troubling we have not been truly following the terms of reference and seem to have gotten into a 'check-the-box' session of so-called consultation driven and manipulated by Metro Vancouver staff. Hence, we are not sure what we are working on. We run the risk of losing well educated & knowledgeable participants if change does not happen.

Industry Concerns

Recently, attention was diverted towards the update of the tip fee bylaw and the implementation of the Smart Waste Program. These two topics are riddled with many concerns from industry and other stakeholders, and while these initiatives hold significant consequences for industry, we are extremely concerned that Metro Vancouver staff did not engage the IAC on these topics well in advance of any rollout, trial, testing, or being reported to the Metro Vancouver Zero Waste Committee. It would also seem that the radical injections to the tip fee bylaws should form part of the SWMP update and not a standalone update. I will provide a more thorough letter on these items, at a later date.

We believe it is essential to allocate sufficient resources and attention to identifying innovative and costeffective solutions to waste reduction, recycling, composting, and waste diversion. By doing so, Metro Vancouver can set an example for other regions and contribute significantly to global sustainability goals in the most cost effective and transparent way possible. Moreover, the time and effort spent on solving bigger problems will have long-lasting positive impacts on the environment and the well-being of our communities.

A Path Forward

The consultation on the solid waste management plan should and must be the primary focus at this time. Engaging with stakeholders, including residents, businesses, and other relevant organizations, will enable us to gather diverse perspectives and develop comprehensive strategies to address the challenges we currently face.

As we move forward together to meet the Region's sustainability goals, we believe all interested parties need to be mindful of the Provincial Integrated Solid Waste Management Planning (ISWMP) process. The Provincial ISWMP represents, and provides guidelines for, interested parties ultimately endorsed and signed off by the Minister responsible for the Environment Management Act. Our Association and our members have observed over the past decade, efforts by Metro Vancouver administration to develop "workarounds" to avoid the premise behind the ISWMP process. The IAC 'check-the-box' process is an example of this.

As an example of the importance of a Regional District's Integrated Plans, we highlight once again the Competition Bureau of Canada's concern relative to monopolistic practices and impacts on consumers, customers and service providers. The WMABC and other industry stakeholders, have entered what was believed to be a collaborative process meant to inform the updating of Metro Vancouver's ISWMP. What we see unfortunately are various policy and by-law decisions that would routinely require open and transparent consultation led by administration prior to being presented to the Zero Waste Committee or the IAC, and ultimately the Province for approval.

By prioritizing this consultation process and making it transparent, we can foster a sense of collective responsibility and ownership, leading to a more inclusive and effective waste management plan.

If we are to have true, open, and honest collaboration, at a minimum, the following should occur:

- Metro Vancouver states what their end goal is without a prescribed path to get there.
- Metro Vancouver and the Industry **Advisory** Committee (IAC) discuss all issues surrounding the goal including:
 - Ensure it is reasonable
 - Discuss amendments that may be put forward by IAC members
 - Discuss optional or additional goals that the IAC may have and determine if the goals need to be modified and if so, what modifications are required.
 - Discuss where we are today so we have a starting point.
 - Discuss **ALL** issues from **ALL** perspectives around the IAC table to determine what needs to be reset to our current position and agree on our starting point
 - In accordance with the Provincial Integrated Solid Waste Management Plan Planning Process, **ALL** aspects of the ISWRMP are part of the consultation process.
 - Discuss and determine how IAC sees the path forward to reach the goal without being prescriptive in how we get there.

A positive step forward has been the election of Lori Bryan, Executive Director of the WMABC, as co-chair of the IAC. She has indicated her goal of steering the committee to its intended purpose and allow industry to have a meaningful impact on our waste & recycling system in our Region. We will need to allow for some time to see if the IAC can become the Industry Advisory Committee it was developed to be and achieve its goals.

In the meantime, we respectfully request that you consider the concerns raised here and take the necessary steps to address them. We would be more than willing to contribute our insights and collaborate with Metro Vancouver staff in any way possible. Together, we can work towards a more efficient and sustainable waste management system that meets the needs of our Region and all of its' stakeholders.

Thank you for your attention to this matter. We look forward to hearing from you soon.

Sincerely,

Grant Hankins President, WMABC

CC ADM Laurel Nash, MOE&CC ZWC Director Craig Hodge IAC members PTAC members



Jan 17, 2024 Greater Vancouver Sewage and Drainage District Metrotower III, 4515 Central Boulevard Burnaby, BC, V5H 0C6

Subject: Concerns Regarding the Smart Waste Program and the Draft Tip Fee Bylaw amendments

Dear Board of Directors,

Firstly, we would like to acknowledge Metro Vancouver's efforts in managing the region's waste and promoting sustainable practices. Accordingly, it is important to acknowledge the crucial role the private waste and recycling industry has played in servicing the Region, from providing hauling services of the various material streams, to sorting, processing and brokering these materials through private investments in waste management infrastructure and strategies. Metro Vancouver has been able to achieve the diversion results it has because of innovation, investment, and competition, in the marketplace. The Region's diversion rates have been stagnant the past few years in large part due to the uncertainty and anti-competitiveness of the regulatory environment in the Region. Waste diversion will only increase if there is good public regulation that allows for increased competition that complies with the Competition Bureau Canada regulations, allowing investment confidence to flourish.

There has been a diversion away from proactive regulations and dialogue to allow the industry and the region to continue to thrive, invest and innovate, by moving towards more restrictive bylaws, eliminating competition and putting our industry's investments at risk. The open and competitive market has been the success of the great diversion the region has accomplished. In its stead, we are seeing the development of new restrictive bylaws and the implementation of GPS units to track waste and recycling service providers trucks and bins, gaining and exposing confidential business data while potentially putting the industries assets at risk. It is vital to ensure that our time and resources are spent solving more pressing and significant problems related to waste management in the region. The majority of waste & recycling service providers support the Region's waste diversion goals and abide by the bylaws and related material bans. The following initiatives are punitive to those providers and erodes the trust between the sector and Metro Vancouver.

Smart Waste Program

The Smart Waste Program (GPS tracker system) was developed, piloted and presented as a report only to the Zero Waste Committee in July of last year without any discussion, notice or consultation with the private waste sector or the Industry Advisory Committee. It was only after the significant pushback from industry that the program was put on pause for 'consultation'. During this 'consultation', it was asked of Metro Vancouver staff why there was no discussion or consultation from the industry. The answer was that Metro Vancouver knew there would be opposition to allowing GPS in their equipment, so it was decided not to consult and move forward with the program development. It has also been asked if trackers had been placed in private company bins and ultimately trucks, during their pilot, to which the response was 'you could safely assume that'. No private company had received any communication on these GPS units being placed in their equipment for this pilot.

This is not the way to build a constructive and trusting working relationship with an Industry that has worked so hard to achieve the Region's goals and expectations, but erodes any trust built between the two.

It has been felt by industry that this GPS tracker program is akin to indiscriminately attaching trackers to someone that MV believes may break the law one day, allowing them to track where they've been and their actions.

Draft Tip Fee Bylaw Amendments

At the same time the Smart Waste Program was introduced, Metro Vancouver also released draft Tip Fee Bylaw amendments for the Zero Waste Committee to receive for information. The bylaw amendments consist of language from the previously Hauler Licensing bylaw that was not approved by the Ministry of Environment. The draft tip fee bylaw amendments are riddled with anticompetitive regulation that is far overreaching, and that the Competition Bureau of Canada (CBC) has already commented on.

When the question of the CBC letter was asked at the July 2023 ZWC meeting, where this draft amendment was presented, Metro Vancouver staff answered that they felt that since the CBC letter was not addressed to Metro Vancouver but to the Minister of Environment, that their comments did not effect them. Further to that line of questioning by a ZWC councillor, Metro Vancouver staff reiterated that they felt that the CBC letter took a narrow view of the bylaws and that these did not reflect the whole of what Metro Vancouver was trying to achieve. The fact that the CBC comments were directed to the Ministry of Environment and Climate Change while contemplating approval of a Metro Vancouver bylaw does not make it less of a comment directed to Metro Vancouver. The draft Tip Fee Bylaw amendments are complicated by very complex competition and legal issues, that have already been ruled on by The Competition Bureau of Canada and to which the province has expressed multiple concerns.

I will not complicate this letter with additional references to the proposed and unapproved bylaws 280, 307,308 and 309 that have made their way into the reimagined proposed tip fee bylaw, however, there is significant focus by the CBC on competition issues in Canada and they are asking all governments to find ways to increase competition, not reduce it.

Recent comments made by the Competition Bureau:

Competition Bureau commissioner Matthew Boswell says new research from the bureau finds the competition intensity in the country has decreased over the last two decades.

Boswell shared the initial findings of a new report during a speech he delivered today at the Competition Summit, a conference hosted by the bureau.

The commissioner says the bureau has been studying competition across sectors between 2000 and 2020 and will be publishing a report in the coming weeks.

He says that overall, the study finds the intensity of competition has decreased during that period of time. Boswell calls the findings "striking" and says they reinforce the need for "significant course correction" in the country.

The focus of today's conversation will be on how we can promote greater competition in Canada through a "whole-of-government approach." But what do I mean by "We"? and what is a "whole-of-government approach"?

- "We" are people from a large variety of businesses, legal, academic and government organizations who understand the need for a collaborative approach to encourage robust competition in Canadian marketplaces. I believe that it's this exact assortment of people who are best placed to lead this discussion. AND,
- A "whole-of-government approach" is one where governments, at all levels, know the far-reaching
 impacts of competition and tailor their policies and regulations to maximize the benefits of strong
 competition.

This report by The Canadian Press was first published Oct. 5, 2023 and can be found here

In Conclusion

The consultation on the solid waste management plan must be the primary focus for staff and industry, at this time. Engaging with stakeholders, including residents, businesses, and other relevant organizations, will enable us to gather diverse perspectives and develop comprehensive cost-effective strategies to address the challenges we currently face. By prioritizing the consultation process and making it transparent, we can foster a sense of collective responsibility and ownership, leading to a more inclusive and effective waste management plan. Focusing on items that may be part of the overall solid waste management plan, is not productive while looking at the entire regional perspective of the goals to reduce waste and increase diversion.

We believe it is essential to allocate sufficient resources and attention to identifying innovative and cost-effective solutions to waste reduction, recycling, composting, and waste diversion. By doing so, Metro Vancouver can continue to set an example for other regions and contribute significantly to global sustainability goals in the most cost-effective and transparent way possible. Moreover, the time and effort spent on solving bigger problems will have a long-lasting positive impact on the environment and the well-being of our communities compared to tracking waste haulers bins and trucks, potentially exposing proprietary and confidential business information and the potential legal issues this may create. This does not contribute to a cost-effective use of taxpayer's resources and does not contribute to solving the overall waste diversion challenges in the Region. The bylaw amendments and GPS waste trackers are of great concern for industry, the Competition Bureau Canada and other stakeholders.

We strongly oppose the draft tip fee bylaw amendments as is and the industry has not given approval to Metro Vancouver to add GPS units to its equipment. We oppose the use of these devices in private waste company's equipment and expect that those companies that have had these devices placed in their bins be notified of this action so that they can assess any potential risks.

We request and strongly encourage the GVS&DD Board/ZERO Waste Committee direct staff to stop both of these initiatives forthwith and put their time and energy into working with and participating in honest consultation and dialogue with Industry and its' stakeholders to create a comprehensive Integrated Solid Waste Management Plan that fosters competition and innovation.

Your attention to these concerns is appreciated.

Thank you,

Grant Hankins WMABC. President

CC ADM Laurel Nash, MOE&CC ZWC Director Craig Hodge IAC members



Office of the Commissioner/Chief Administrative Officer Tel. 604-432-6210 or via Email CAOAdministration@metrovancouver.org

January 24, 2024

File: PE-13-01

Grant Hankins, President
Waste Management Association of BC
PO Box 3322, Station Main
Mission, BC V2V 4J5

VIA EMAIL: admin@wmabc.ca; ghankins@wmabc.ca;

Dear Grant Hankins:

Letter dated December 11, 2023 – Concerns Regarding the Functioning of the Solid Waste and Recycling Industry Advisory Committee and the Solid Waste Management Plan Consultation Process

Thank you for your letter to the Greater Vancouver Sewerage and Drainage District (Metro Vancouver) Board of Directors regarding the Solid Waste and Recycling Industry Advisory Committee (Industry Advisory Committee) and the solid waste management plan update consultation process.

On behalf of the Board Chair, we appreciate your thoughtful comments and your acknowledgement of the work that Metro Vancouver is doing to promote sustainable practices. We also truly appreciate the commitment and work of waste and recycling industry representatives on the Industry Advisory Committee as well as the Solid Waste Management Plan Public/Technical Advisory Committee. The work of these two committees is critical to the success of the solid waste management plan update process. We understand that members of these committees are volunteering their time and energy, and we are grateful for their valuable contributions.

Please accept our response as a reflection of our commitment to collaboration and open dialogue, and as further assurance that your comments will be considered and included in the feedback report for the solid waste management plan update.

Summary

Metro Vancouver is committed to ensuring that the function of the Industry Advisory Committee is consistent with its Terms of Reference. The Industry Advisory Committee and other entities such as the Public/Technical Advisory Committee and Independent Consultation and Engagement Panel are critical to ensure success of the solid waste management plan update process.

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The Competition Bureau provided feedback to the Minister of Environment and Climate Change Strategy in 2019 on Metro Vancouver's solid waste regulatory framework, but did not establish any related requirements or regulations. Metro Vancouver's model of transparent, consistent, and predictable garbage tipping fees maximizes competition among private waste management companies and promotes innovation and investment in recycling services in the region. Metro Vancouver's user pay model, using tipping fees to fund the regional solid waste system, differs from many Canadian cities where property taxes fund solid waste systems.

The Metro Vancouver solid waste regulatory framework promotes waste reduction and recycling through mechanisms such as the generator levy to encourage waste to be delivered to regional solid waste facilities where disposal bans on recyclable materials apply. In fall 2023, Metro Vancouver engaged with interested parties on two initiatives aimed to help ensure compliance with the generator levy provisions of the Tipping Fee Bylaw: the smart waste program and draft updates to the Tipping Fee Bylaw. Work is progressing on these initiatives as engagement feedback is being reviewed and considered.

Metro Vancouver continues to be open to any solutions that advance regional solid waste priorities, including environmental stewardship and waste reduction, and is happy to work with Waste Management Association of BC (WMABC) in any manner to find those solutions.

Industry Advisory Committee

Your letter raises concerns related to the function of the Industry Advisory Committee including your view that the committee is not following its Terms of Reference. Metro Vancouver is fully committed to ensuring the work and structure of the Industry Advisory Committee are consistent with its Terms of Reference. As mentioned in your letter, Lori Bryan, Executive Director of the WMABC, is the newly elected Co-Chair of the Industry Advisory Committee and has made clear her intention to work with members to facilitate opportunities for dialogue and input on relevant key topics and in the development of the updated solid waste management plan.

Metro Vancouver staff and the Industry Advisory Committee Co-Chairs are working to address concerns raised by members about committee productivity and function. The January 9, 2024 Industry Advisory Committee meeting included small group discussions for members to collaborate on deciding on key topics for the 2024 Industry Advisory Committee work plan, as well as how those topics are best discussed.

Metro Vancouver staff look forward to supporting the Co-Chairs in their roles and having a productive year with Industry Advisory Committee members.

Solid Waste Management Plan Update Engagement Process

Metro Vancouver recognizes that a comprehensive engagement program is integral to the development of an updated solid waste management plan. Metro Vancouver established the Solid Waste Management Plan Independent Consultation and Engagement Panel (Engagement Panel) to act as an independent, third-party advisory group to Metro Vancouver staff and the Board on consultation and engagement for the plan update. Metro Vancouver staff work with the Engagement Panel to guide the development and implementation of a robust and inclusive engagement process. The Engagement Panel reports to the Zero Waste Committee on engagement during all phases of the solid waste management plan development.

As part of the role of the Engagement Panel, there have been opportunities for the public and interested parties to present to the Engagement Panel about the solid waste management plan update engagement process. The most recent opportunity was on December 1, 2023, when seven individuals including Lori Bryan, the Executive Director of WMABC, presented to the Engagement Panel. The meeting was livestreamed and the recording is available on Metro Vancouver's website.

Metro Vancouver is committed to a transparent and inclusive engagement process and, as such, this letter is being copied to the Engagement Panel, and your original letter will also be forwarded to them.

Supporting Competition Among the Waste and Recycling Industry

Your letter references the Competition Bureau of Canada's "concern relative to monopolistic practices and impacts on consumers, customers and services providers". These concerns were set out in a 2019 Competition Bureau open letter to the British Columbia Minister of Environment and Climate Change Strategy with respect to proposed Metro Vancouver regulatory measures being considered by the Minister (Bureau Letter).

The Bureau Letter indicates that the views in the letter are "[s]eparate from its enforcement mandate" and "in the context of [the Bureau's] role as an advocate for the benefits of a competitive marketplace". The Bureau Letter further clarifies that the Bureau "makes representations, such as [the Bureau Letter], to public bodies that carry regulatory activities to shed light on competition-related issues that exist independently of any outcomes of a formal investigation under the enforcement provisions of the [Competition Act]". The Bureau Letter accordingly does not establish any compliance requirements or regulations related to the management of municipal solid waste in Metro Vancouver.

Metro Vancouver's perspective is that the views expressed in the Bureau Letter are not consistent with public interest objectives related to environmental stewardship and waste reduction and recycling pursued by Metro Vancouver. Rather, the Bureau Letter focuses simply on the premise that the lowest cost of garbage disposal for some generators can be achieved through competition on disposal.

We agree with your letter's conclusion that private sector innovation and investment are essential in advancing the region's sustainability goals. Metro Vancouver works to advance waste reduction, improve reuse and recycling systems, and manages the remaining waste in an environmentally responsible manner. Metro Vancouver's perspective is that the Metro Vancouver model of transparent, uniform and predictable garbage tipping fees, and consistent rules that encourage recycling through the disposal ban program are fundamental in advancing waste reduction and recycling in the region. This approach also supports competition among private waste management companies as all companies are subject to the same garbage disposal costs and rules.

Another key aspect of the Metro Vancouver solid waste system is that the system is fully funded on a user pay basis through tipping fees, which differs from the property tax solid waste system funding model in place in many Canadian cities.

Metro Vancouver's North American leading waste reduction and recycling rate of 65%, approximately two times the Canadian average, is closely tied to the region's robust solid waste policy and regulatory framework, as well as a publicly owned and operated regional solid waste system promoting waste reduction and recycling.

If you are aware of policy and regulatory models in other jurisdictions that are more effective in promoting waste reduction and recycling, advancing the circular economy, and equitably funding solid waste services, we would be happy to discuss how learnings from those models can enhance the regional solid waste system.

Smart Waste Program and Draft Tipping Fee Bylaw Updates

Your letter also references the draft updates to the *Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Bylaw No. 306, 2017*, as amended (Tipping Fee Bylaw), and the smart waste program. Draft Tipping Fee Bylaw updates, including draft updates to records management requirements related to the generator levy, and the smart waste program were introduced for information at the July 13, 2023 Zero Waste Committee meeting.

Generator levy provisions have been included in the Tipping Fee Bylaw since 2018, and the authority for Metro Vancouver to implement the generator levy pursuant to the *Greater Vancouver Sewerage and Drainage District Act*, S.B.C. 1956, c.59, has been in place since 1995. The updates to the generator levy provisions of the Tipping Fee Bylaw presented at the July 13, 2023, Zero Waste Committee in draft, as well as the smart waste program, are intended to ensure that all waste management companies operating within Metro Vancouver appropriately collect and remit the generator levy as required by the Tipping Fee Bylaw.

In fall 2023, GVS&DD engaged with interested parties on draft updates to the Tipping Fee Bylaw and the smart waste program, including discussions at Industry Advisory Committee meetings. Engagement work was focused on mitigating potential concerns from the waste management community with respect to the draft Tipping Fee Bylaw updates and smart waste program.

Considering feedback received through engagement, Metro Vancouver staff are working on a further revised draft of the Tipping Fee Bylaw updates and a draft smart waste program implementation plan, which will be made available for written comment. The overall engagement process is shown below.



Figure 1 - Draft Tipping Fee Bylaw Update Engagement Process



Figure 2- Smart Waste Program Engagement Process

Your letter provides suggestions for a path forward for the Industry Advisory Committee. Our hope is that the Industry Advisory Committee process will continue to evolve and help support our mutual interest in advancing zero waste and the circular economy. We continue to be open to continually improving how the Industry Advisory Committee functions and how it can contribute to a better overall solid waste system.

Thank you again for your letter. In addition to the mechanisms already in place that provide engagement opportunities for the WMABC and its members, Paul Henderson and I would be happy to meet with you and other WMABC representatives at your convenience to discuss any of these issues.

Yours sincerely,

Jerry W. Dobrovolny, P.Eng, MBA

Commissioner/Chief Administrative Officer

JWD/PH/sj

cc: Laurel Nash, Assistant Deputy Minister, Ministry of Environment and Climate Change Strategy

GVS&DD Board and Zero Waste Committee

Solid Waste and Recycling Industry Advisory Committee members

Solid Waste Management Plan Public/Technical Advisory Committee members

Solid Waste Management Plan Independent Consultation and Engagement Panel

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Solid Waste Management Plan Public/Technical Advisory Committee 2024 Draft Annual Work Plan

Meeting Date: February 23, 2024

An annual work plan for the committee will be developed by Metro Vancouver staff based on deliverables in the solid waste management plan development. The work plan will be reviewed annually by the committee, and will guide development of meeting agendas.

Priorities		
Item	Status	
Solid Waste Management Plan Update – Vision and Guiding Principles Report Back	Pending	
Solid Waste Management Plan Update – Issues/Opportunities Report Review	Pending	
Solid Waste Management Plan Update – Phase 2: Idea Generation	Pending	
Waste-to-Energy Facility Tour	Pending	
Disposal Ban Exemption Program Pilot	Pending	
Performance Metrics Study Update	Pending	
Residuals Management Options Scope Review	In progress	
Concrete and Asphalt Recycling Opportunities Scope Review	In progress	
Integrated Solid Waste and Resource Management Plan Biennial Report	Pending	
Working Group Updates – Ongoing	Pending	

2024 Meetings:

February 23, 2024

April 12, 2024

June 14, 2024

September 26, 2024

November 21, 2024 – PTAC Presentation Day

Working groups will establish meeting frequency once groups are established.

PTAC Proposed List of Key Topics for 2024 Solid Waste Management Plan Update Working Groups

Topics based on discussions and interests from members over the last few meetings in 2023 and also the ranking topics exercise completed by members at the November 16, 2023 meeting

Proposed Working Group Topics:

- Construction and Demolition Waste Management (capacity, markets, regulatory framework)
- Organics Management (improving participation, contamination, processing capacity)
- Waste Prevention (repair, reuse, reduce, food recovery, education and behavior change)
- Plastics (regulatory framework, commodity markets)

MentiMeter Results from November 16, 2023 PTAC Meeting:

Topic	Ranking
Environmental/social/governmental accounting practices	3.1
Broader goal for net zero in 2050	3.5
Waste hauling industry perspectives	3.2
Single-use items regulations (Provincial/Federal)	3.5
Construction and demolition policies and the market	3.4
Reuse and how to scale reuse alongside procurement	3.4
Information on recycling commodity markets	3.6
Opportunities for recycling, particularly organics (markets, pick-up options, processing, separation from waste, end-use)	4
Waste-to-Energy Information	3.2
Community-based social marketing	3
Zero Waste BC Agenda (circular economy strategy and costs for various disposal options)	3.2
Presenters from other parts of the world who have had success in getting better results, best practices, and changing course	3.8

^{*} The rankings reflect the average number of votes per item.

Solid Waste Management Plan Public/Technical Advisory Committee Working Groups

Terms of Reference January 2024

1. PURPOSE

The purpose of the solid waste management plan public/technical advisory committee (committee) is to provide a forum for contribution from individuals from a range of backgrounds to inform the review and update of the solid waste management plan.

Since the committee formed in June 2022, meetings have included Metro Vancouver staff presentations, external presentations, and discussion among committee members on topics of interest. The committee has proposed the formation of working groups to allow space for deeper discussion and to work towards solutions for solid waste challenges that have been raised. This is best facilitated in smaller groups that meet on a regular basis. Committee members can bring their expertise and experience to these working groups and report back to the entire committee with their findings.

Conclusions from working group discussions will contribute to the updated solid waste management plan with the objective of identifying opportunities for accelerated waste reduction and diversion, while reducing greenhouse gases and promoting a circular economy.

2. TIMEFRAME

The committee working groups will begin in spring 2024 with a final presentation day set for late 2024, where each working group will present their findings.

3. SCOPE OF WORK

Each working group will focus on a specific topic that have been selected by the committee based on member input and areas of interest gathered from previous meetings. Metro Vancouver staff will prepare proposed key issue(s) related to each working group topic. Each working group will refine and finalize key issue(s) to focus on. The key issue(s) will be the focus of the working group meetings with the goal of coming up with ideas, potential solutions, or alternatives to share with the entire committee.

The working groups will have until late 2024 to finalize their ideas or potential solutions to the key issue(s).

The agenda and format of each working group meeting will be determined by the working group Chair with input from working group members.

Working group members will be encouraged to pose questions, engage in discussion, and provide comments for consideration. Potential topics for the working groups based on areas of interest identified by committee members include: construction and demolition waste management, organics management, waste prevention, and plastics.

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4. MEMBERSHIP

The working groups will allow for committee members to self-select which topic(s) they would like to be a part of. Members can self-select and participate in as many working groups as they wish. There is no limit to the number of members each working group can have.

Participation in the working groups is optional. Working groups will meet outside of the regular committee meetings.

5. CHAIRS

The committee working groups will select a chair. It is suggested that the chair would lead the meetings and report back at the regular committee meetings throughout the year. The report back would include sharing what the chosen key issue(s) are, and update on what the working group has discussed at each meeting.

6. MEETINGS

- a. Each working group can decide on the frequency of meetings for the year, and will meet outside of the regular Solid Waste Management Plan Public/Technical Advisory Committee meetings.
- b. Meetings will be held virtually.
- c. Metro Vancouver staff will provide administrative and technical support (i.e. setting up online meetings, sending out email information, drafting agendas with the chair, and taking brief notes on key items discussed including action items).
- d. Agendas and action items will be circulated to the committee in advance of meetings. The agendas and action items will be posted on the committee website.
- e. The final suggestions from each working group will be presented at a regular committee meeting, and will be included in an engagement summary report for the solid waste management plan update.
- f. The working groups may invite groups and subject matter experts to present and provide advice and feedback on specific agenda items.

7. Applicability of Solid Waste Management Plan Public/Technical Committee Terms of Reference The following elements of the Solid Waste Management Plan Public/Technical Advisory Committee Terms of Reference also apply to the Solid Waste Management Plan Public/Technical Advisory Committee working groups:

- Code of Conduct
- Budget and Resources
- Media Protocol
- Declaring Conflict of Interest
- Support mechanisms in place to lower barriers to participation
- Reimbursement for reasonable, out-of-pocket expenses associated with participating in meetings

Reference:

Solid Waste Management Plan Public/Technical Advisory Committee Terms of Reference



Photo by Todd Baker, MH

Concrete and Asphalt Recycling Opportunities

Metro Vancouver's Solid Waste Management Plan Update

Presentation to PTAC on February 23, 2024



Meeting outline

- Purpose / background
- Study objectives
- Scope of work





Purpose of presentation

- Review draft scope of concrete and asphalt recycling options assessment (the study)
- Obtain feedback from this committee on:
 - The draft scope
 - Committee participation



Background - process



- Updated solid waste management plan (SWMP)
- Metro Vancouver has set out a multi-phase process
- A Consultant team was hired to support

We are here







Vision and Guiding Principles



Idea Generation



Options Analysis



Draft Plan



Plan Approval

Study objectives

- Identify options to reduce the "downcycling" and barriers
- Evaluate new recycling opportunities:
 - Recycled aggregate concrete (RAC)
 - Recycled asphalt pavement (RAP)
- Determine best practices and leading-edge opportunities
- Assess business case and related risks





Study background

- Approximately 1.16 million tonnes recycled in the region in 2021
- Approximately 98% of concrete and asphalt generated was recycled in 2021



Proposed tasks

- 1. Literature review:
 - Local regulatory & contractual framework
 - Current status in Metro Vancouver
 - Identify best practices & experience in other jurisdictions



- 2. Stakeholder interviews
- 3. Stakeholder workshop
- 4. Business case development and reporting

Literature review

- Review the local regulatory and contractual framework to identify gaps and opportunities
 - Include local bylaws, MMCD design guidelines, design handbooks, member jurisdiction subdivision servicing guidelines, Transportation Association of Canada Best Practices Guide, and Ministry of Transportation Standard Specifications for Highway Construction
- Research and identify best practices globally





Review current status

- Document review
 - Review existing documents, reports, current policies and waste quantities to identify challenges, opportunities, and gaps
- Interview stakeholders (max. 20)
 - Include leading experts such as BC Road Builders; member jurisdiction staff; processors; equipment suppliers; construction contractors; consultants; and leading jurisdictions



Identify best practices

- Comprehensive review of the best practices and experiences in other jurisdictions
- Assess applicability
 - Benefits, drawbacks, and challenges
- Assess current practices and identify ways that they can be improved



<u>Workshop</u>

- The objective of the workshop is to identify:
 - Feasible opportunities
 - Present barriers / challenges
 - Options of how to overcome barriers / challenges
- Stakeholders from industry, committees, and member municipalities will be invited to participate





Business case

- Assess financial and environmental impacts of identified opportunities
- Assess risks
- Develop final business case





PTAC Member Involvement

- Potential PTAC involvement:
 - Feedback on scope
 - Interviews
 - Workshop
 - Findings review









Photo by Todd Baker, MH

Residual Waste Management Options Metro Vancouver's Solid Waste Management Plan Update

Presentation to PTAC February 23, 2024



Meeting outline

- Introductions
- Purpose / background
- Study objectives
- Scope of work
- Feedback





Purpose of presentation

- Review draft scope of residuals management options review (the study)
- Obtain feedback from this committee on scope
- Receive feedback on committee participation throughout the study



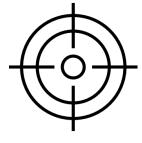
Study objectives - residual waste

Residual waste definition

- Waste remaining (after the 3Rs) from the residential and commercial / institutional sectors
- To be disposed or processed further for energy / material recovery

Study objective

- Provide technical information on options for management of residual waste
- Provide an overview of considerations, potential options, and evaluation criteria





Background – residual waste

- Approximately 1,000,000 tonnes of waste per year from residential and commercial / institutional sectors requires disposal
- Primary disposal facilities are:
 - Waste-to-Energy Facility
 - Vancouver Landfill
 - Remote landfills(3 landfills)
- Per capita disposal rate has been halved since 1994



Proposed tasks

- 1. Literature review
- 2. Review options
- 3. Historic case studies (10)
- 4. Current case studies (10)
- 5. Considerations for approaches
- 6. Potential criteria for evaluating options
- 7. Reporting





Literature review

- Review of international best practices
- Approaches / trends in similar regions
- Define economic / regulatory drivers in various jurisdictions
- What is and is not working well?
- Review possible approaches / systems





Review options

- Review method of managing garbage in comparable jurisdictions around the world
 - Objectives and goals
 - Key drivers
 - Breakdown of wastes
 - Methods of managing wastes
 - Progress against goals
- If available, compile information on:
 - Costs
 - Risks
 - GHG emissions
 - Pros and cons





Case studies

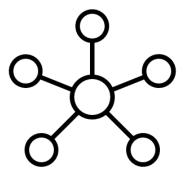
- Prepare up to twenty (20) case studies on non-traditional residual management technologies
 - Historical technology examples (10)
 - Current technology examples (10)
- Summarize:
 - Background
 - Key drivers
 - Technology type / setting
 - Regulatory environment
 - Goals / objectives
 - Costs
 - Risk, pros and cons
 - Success / failure





Considerations for approaches

- Define the overall context, goals, and considerations
 - Consider provincial guidelines including waste-to-energy requirements
- Discuss main alternatives
- Develop summary of key considerations for approaches:
 - Capital / operating costs
 - Key drivers
 - Revenues
 - Environmental impacts
 - Transportation
 - Alignment with goals
 - Barriers, challenges, risks
 - Siting constraints





Identify evaluation criteria

- Develop criteria for future evaluation
- Consider vision, guiding principles, goals, strategies, targets and performance metrics
- Likely criteria categories are:
 - Social
 - Environmental
 - Economic
- Key considerations for new / emerging technologies
 - Potential risks
 - Technology readiness





PTAC Member Involvement

- Potential PTAC involvement:
 - Feedback on scope
 - Interviews if desired
 - Participation in focused advisory committee if desired
 - Findings review







