January 20th, 2025

Mr. Jerry Dubrovolny, CAO
Metro Vancouver Regional District
CAOAdministration@metrovancouver.org

cc:
Zero Waste Committee,
Climate Action Committee,
Metro Vancouver Regional District Board,
Solid Waste Management Plan Public/Technical Advisory Committee,
Solid Waste and Recycling Industry Advisory Committee,
Solid Waste Management Plan Independent Consultation and Engagement Panel
Ministry of Environment and Parks.

Dear Jerry Dubrovolny,

Thank you for your letter December 18th, 2024. Zero Waste BC has been pleased to participate in the process to update the solid waste management plan and sit on the Solid Waste Management Plan Public/Technical Advisory Committee. We fully support the direction to pursue waste prevention and scale up measures to reduce waste. We too agree that managing residual garbage in an environmentally responsible and cost-effective manner is important. It is for these reasons that we think it is so important to rethink the use of incineration by Metro Vancouver. We would like to respond to several aspects of your letter below.

Costs
We appreciate the information on the operating costs; however we feel more transparency on how these numbers were calculated is required. I had asked questions on this in an email to the Zero Waste Committee December 13 (to which there has not yet been a response) but will reiterate them here:

1. Why are the costs for waste not separated out from recycling? To be equal and support recycling, there really should be equivalent diversion options in Burnaby (which would also help with load inspection). Instead it appears that all costs for supporting recycling and composting collection at transfer stations (and presumably future reuse options are lumped in with landfilling). To make it more apples to apples for comparison, we would like to see the numbers for landfilling be separated out to include only the costs to haul waste and, separately, costs to dispose at the landfill. The operations of a transfer station should be excluded as this is not part of the landfill option (waste may equally be hauled to the incinerator.
2. Capital costs for landfills. As the numbers will be used to determine how to handle **future** waste, the capital costs of closed landfills should not be included in

the cost per tonne of landfills in order to make it clear what the choices are going forward.

3. Capital costs for incineration -it is clearer to exclude debt servicing costs and capital costs from the operating costs of the incinerator. These should be presented separately again so decision makers can see the full burden of capital costs that are expected in the next ten years. Additionally the choice of when to pay back debt and how much in a given year can vary significantly and skew the numbers. Instead a separate line showing the amount of debt incurred and scheduled to be incurred should be shown as well as separate lines as to what this would average out to be over ten years and twenty years.
4. Zero Waste & waste reduction -there is no comparison of what it has or would cost to actually reduce the amount of waste inserted of merely disposing it -again this would be useful for decision makers. This is not currently separated out in the publicly available budget line items.
5. Timing -the net cost/tonne figures do not have a specific year or date attached. Given the significant capital costs expected for the incinerator, forecasting this out with years labelled would be more meaningful, especially given that the report that included the three numbers provided noted "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" and it does not even include the projects for burning biosolids and connecting to district energy.
6. Carbon tax -the report should also show what carbon tax is paid if any for incineration, landfilling and savings for pursuing zero waste (and the forecast cost of what that would be going forward with full cost accounting and forecast increases).

Rather than being a cost effective way to manage waste, locking into to an aged facility is an expensive diversion of funds that could otherwise be put towards long-term, meaningful waste reduction.

Bottom Ash

We also urge caution in the use of the bottom ash in cement manufacturing. With the potential for hazardous pollutants, including this material in cement where the end users will not know of the risk and it will be hard to track and monitor, is a violation of the precautionary principle and has proved problematic in other jurisdictions.

GHG Emissions and District Energy

Your letter notes that the facility recovers metals yet far more metal could be recycled by enhancing collection options and enforcing disposal bans. Similarly, much more energy than is produced could be saved by not wasting these materials in the first place. While GHGs are generated when transporting waste, these emissions pale in comparison to the emissions from disposal. Our research, already presented, shows that the incinerator is the worst method for

disposal in terms of GHGs and even when only counting the non-biogenic emissions, has consistently been in the top 25 of GHG emission point sources in the province.[1]
The fundamental premise that nothing else could be done with the waste is not in keeping with the data shown in the Metro Vancouver waste audits and recent engagement materials produced by Metro Vancouver that shows up to 80% of materials could have been avoided or diverted using **existing** systems. Not only would that prevent the waste but also all of the upstream emissions required to produce replacement virgin materials. Preventing the materials from becoming waste would obviously be the best choice but even the existing landfill options that Metro Vancouver currently uses is preferable to the incinerator from a GHG perspective.

District energy needs to be powered by renewable materials, of which waste should not be considered renewable and of which plastic-based fossil fuels is the main energy component. Your letter notes 70,000 t GHG would be reduced by using district heating "*if it displaced natural gas"* yet the incinerator put out 142,647 t CO2e in 2020 of non-biogenic emissions and had used 70,259 GJ of natural gas to produce that. In addition, another 151,015 t CO2e of biogenic emissions were emitted. This means that if the incinerator had closed in 2020, it would have saved 230,000 t CO2e (calculated using the total incinerator emissions minus the same tonnage going to the Vancouver Landfill which is generous as the external landfills generate 1/3 of the emissions of the VLF and much of the waste could have been avoided).

In addition, we do not agree that comparing home heated by incineration to natural gas makes sense, particularly when some of those homes are in Vancouver which does not allow natural gas to be used in new homes for this purpose. Further, there have been advancements in heat pumps and building energy efficiency that would make those solutions be the more cost-effective ones instead of locking in to incineration.

Also note that the key energy component is plastic for which the federal and provincial governments are actively working to reduce in the waste.

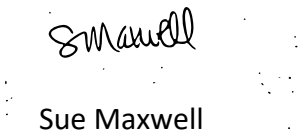
Air emissions
Metro Vancouver has recently applied for the continued extension of allowance to pollute SO_2 and HCl at a higher level than the provincial guidelines. We commissioned research into the best practices in emissions standards and monitoring. From that we can see that while Metro Vancouver invested in additional pollution control measures such as for NO_x, it is not best in class and does not match the continuous monitoring of several pollutants such as dioxins and furans as is required in Oregon (and is proposed in Hawaii), nor does it monitor during times of start-up (as is required in the EU, and the US in some cases). In addition, standards for NOx and other pollutants are being tightened up as further research reveals the health risks. Please find more extensive details on our feedback and suggested improvements in the attached document.

[1] See BC emission report summaries (SFO category) at https://www2.gov.bc.ca/gov/content/environment/climate-change/data/industrial-facility-ghg

Anyone interested in learning more about the risks of continuing with waste incineration should review this recent comprehensive report by the International Pollutants Elimination Network which outlines the numerous problems and has examples from around the world. (https://arnika.org/en/publications/waste-incineration-and-the-environment).

Metro Vancouver has wasted a significant amount of money trying to establish new incineration capacity and looking at beneficial use of ash. Now there is appetite to spend more money on carbon capture technologies. Given the age and state of the incinerator, decisions should be made with the perspective of "What would a responsible government choose to do if it were starting afresh?". We are hoping the answer would be to invest in waste reduction with the same fervor as these previous pursuits.

Sincerely,



Sue Maxwell
Chair,
Zero Waste BC