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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Air Quality Committee

From: Gaurav Singh, Air Quality Planner, Air Quality and Climate Action Services
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Date: January 8, 2026 Meeting Date: January 16, 2026

Subject: **MVRD Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026**

RECOMMENDATION

THAT the MVRD Board:

a) give first, second, and third reading to *Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026*; and
b) adopt *Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026.*

EXECUTIVE SUMMARY

This report describes recommended amendments to *MVRD Air Quality Management Fees Regulation Bylaw No. 1330, 2021 (MVRD Bylaw No. 1330, 2021*). The amendment bylaw is *Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026 (MVRD Amendment Bylaw No. 1440, 2026*).

Amendments to *MVRD Bylaw No. 1330, 2021* are being recommended in response to feedback from permit holders and other interested parties. The amendments are time sensitive, as they are intended to rectify ambiguities and avoid the application of higher fees that would be charged in some cases if the bylaw is not amended soon.

Staff received extensive feedback during engagement between June and December 2025, including from BC government staff, who emphasized the importance of cost for regulated businesses at this time of economic uncertainty, and suggested removing key elements of the odour management framework.

With consideration of the input received, the recommended amendments will simplify the fees for odour management, reduce many fee rates, and introduce caps on permit application fees that have been lowered in response to feedback. The changes would apply retroactively to January 1, 2026 where the amendments result in lower fees than under the current bylaw.

The recommended amendments would improve competitiveness, clarity, predictability, and fairness of the fees, while maintaining alignment with Metro Vancouver's principles of discharger-pay (in proportion to the impact of their emissions), fair cost recovery, and emissions reduction. The recommended amendments also support the delivery of an effective air quality management program for the region and will support Metro Vancouver's work to address over 2,000 complaints about odorous emissions received each year.

PURPOSE

To seek MVRD Board adoption of *MVRD Amendment Bylaw No. 1440, 2026* presented in **Attachment 1** to this report, which describes recommended amendments to *MVRD Bylaw No. 1330, 2021*.

BACKGROUND

At its October 29, 2021, meeting, the MVRD Board adopted *MVRD Bylaw No. 1330, 2021* to update fee rates for authorized discharges of air contaminants. At its May 23, 2025 meeting, the MVRD Board directed staff to engage on proposed amendments to *MVRD Bylaw No. 1330, 2021*. The proposals for updating *MVRD Bylaw No. 1330, 2021* have been informed by that engagement and an updated proposal is now in front of the Committee and Board for consideration.

REGIONAL BYLAW FOR AIR QUALITY FEES

Metro Vancouver is responsible for managing air quality in the region under delegated authority from the Province through the *Environmental Management Act*. This includes authority to regulate air contaminant emissions, and to establish fees to support the air quality regulatory program. Metro Vancouver protects air quality through emission regulations and site-specific authorizations (permits and approvals) to control the discharge of air contaminants. Metro Vancouver has charged fees for applications for authorization since 1973 (Reference 1) and for authorized air emissions since 1992 (Reference 2) to support the costs of delivering the air quality regulatory program and to encourage emissions reduction.

The current *MVRD Bylaw No. 1330, 2021* was designed to strengthen cost recovery and to support the principles of discharger-pay and continuous improvement in emissions reduction. Since 2022, staff have monitored bylaw implementation and listened to feedback from permit holders and other interested parties. Through this experience with *MVRD Bylaw No. 1330, 2021*, staff identified areas for updates to provide clarity, predictability, and fairness for fees, improve overall competitiveness when compared to other jurisdictions, and align with federal and provincial legislation.

Bylaw updates are needed in 2026 to avoid the application of higher fees that would be charged if the bylaw is not amended.

ENGAGEMENT ON PROPOSED BYLAW AMENDMENTS

In public opinion research commissioned by Metro Vancouver in 2020 during the engagement for *MVRD Bylaw No. 1330, 2021*, most respondents stated that businesses that discharge air contaminants should pay the associated costs of regulation.

The engagement program for the bylaw updates was designed to hear from those likely to have a specific interest, be impacted, or have a role in implementation. This included the regulated community, other governments (including health authorities), and interested residents. The engagement, which launched in June 2025, described the proposed amendments in a discussion paper (Reference 3) and sought feedback to shape an effective and practical bylaw and identify reasonable regulatory fees.

From June to December 2025, staff received input through 82 survey responses, 10 letters, and over a hundred written questions and comments, as well as feedback from two webinars, five meetings by request, and three municipal environmental advisory meetings.

The major themes in the feedback are:

- Support for consistent scaling of fees to impacts
- Need for cost transparency
- Need for efficiency and predictability of fees
- Importance of maintaining industry competitiveness and benchmarking with other jurisdictions,
- Concerns over unintended consequences such as higher costs for construction and agrifood industry if fees and regulatory costs are high, or reduced involvement of health authorities in permit review processes if emission impacts are considered low and charged low fees

- Mixed support for incentives to reduce emissions
- Concerns about complexity and costs to permit holders surrounding measurement of odorous air contaminants
- Balancing bylaw outcomes with other regional goals such as economic prosperity, health, and quality of life

During engagement, BC government staff suggested removing key elements of the odour management framework in *MVRD Bylaw No. 1330, 2021*. They suggested alternatives to charging fees for odorous air contaminants in addition to other suggestions for overall amendments to *MVRD Bylaw No. 1330, 2021*. *MVRD Amendment Bylaw No. 1440, 2026* aligns with the recommendations from the Province to resolve ambiguities in *MVRD Bylaw No. 1330, 2021*, while retaining fees for odorous air contaminants in a clearer, fair, and simplified form that would support an effective management program for odorous air contaminants.

Representatives of some of the region's largest industrial facilities and the Cement Association of Canada raised concerns about the initial proposed cap on permit application fees. Following engagement, the recommended application fee cap has been reduced in response to feedback about competitiveness and comparison with other jurisdictions. The Cement Association of Canada has written a letter to confirm that they and their members are supportive of the recommended amendments, which include the reduced application fee caps.

All input was documented, analyzed, and used to inform the recommended bylaw amendments. A detailed engagement summary is provided in **Attachment 2**, including correspondence between the Province and Metro Vancouver and letters from Vancouver Coastal Health, industry, and residents.

In late 2025, upon assessing this input, staff adjusted the initial proposed amendments and informed interested parties of those adjustments. Key adjustments were made to the initial proposed definitions, rules and fee rates for odorous air contaminants, and cap on application fees for authorization of emissions. The adjustments are described in the following section.

RECOMMENDED AMENDMENTS

The recommended amendments, which account for input received, are presented in *MVRD Amendment Bylaw No. 1440, 2026* **(Attachment 1)** for the MVRD Board's consideration. A blacklined version of *MVRD Bylaw No. 1330, 2021* **(Attachment 3)** compares the recommended amendments to current bylaw language.

Updating Definitions

The current bylaw has some overlapping definitions for categories of air contaminants. A substance can fall into more than one category, which affects the fee rate that applies. The recommended amendments will:

- Clarify definitions for hazardous air pollutants and volatile organic compounds so they are easier to understand and apply, in response to feedback from the Province.
- Align Metro Vancouver's definitions with updated federal and provincial laws, specifically the *Canadian Environmental Protection Act* and BC's *Public Notification Regulation*.

These updates will make the rules clearer and give businesses more certainty and predictability about which fees apply to them.

Clarifying Ambiguities in How Fees are Calculated
The current bylaw language contains ambiguities that make it difficult for permit holders to understand how fees are calculated for different air contaminants. This lack of clarity affects their ability to predict their fees and plan financially.

Single Fee Rate Charged for Multi-Class Substances:
Sometimes a substance listed in the bylaw fits into more than one category of air contaminants even after updated definitions. The updated bylaw will improve clarity:

- Only one fee rate would apply to that substance, and it will be the highest applicable fee rate for that substance.
- If a facility pays for all combined odorous air contaminants from an emission source, it will not pay extra fees for total reduced sulphur emissions or individual odorous air contaminants but could pay fees for other air contaminants from that emission source.

These changes make fees easier to understand and predict. They also follow the principle that air contaminants should have higher fees if the contaminants have the potential to have greater impacts on human health, physical discomfort, business operations, and the usefulness of the environment.

Clear Rules for Odorous Air Contaminants:
Ambiguities in the current bylaw make it hard to calculate fees for odorous air contaminants, which has caused confusion and limited cost recovery. The updated bylaw will set simple rules:

- If a permit includes limits for odorous air contaminants, fees will be based on those limits.
- If no emission limits are listed in a permit, fees will be based on measured emissions that are above analytical method detection limits. This adjustment responds to concerns about the current bylaw charging for emissions below detection limits.

These changes make the process more transparent and predictable. They also help Metro Vancouver recover the costs of regulating odorous emissions from seven facilities permitted for these emissions.

Simplifying and Reducing Fee Rates for Odorous Air Contaminants
Fee rates for odorous air contaminants were adopted in 2021 with large increases scheduled for 2025. These fee rates were developed at a time of high complaint levels and would have resulted in large cost increases for some facilities had they been applied.

To address these issues and respond to feedback calling for a simpler, more affordable framework, the recommended amendments would:

- Reduce the number of odorous air contaminants for which fees are applicable, focusing on the most odorous ones for which there are published measurement methods.
- Reduce fee rates for odorous air contaminants starting in 2026 to the lowest levels proposed in the discussion paper and increase them gradually through 2030. Even by 2030, fee rates would remain below current fee rates.
- Charge the same fee rate for permitted and measured odorous air contaminants, instead of charging four times more for measured contaminants.
- Reintroduce a fee rate for total reduced sulphur air contaminants. Some permits for smaller, lower-emitting facilities have emission limits for total reduced sulphur only, when it comes to odorous air contaminants.

While some feedback suggested eliminating the broad set of fees for odorous air contaminants, staff recommend retaining a significantly simplified form of these fees. Since odorous air contaminants have been regulated more comprehensively, some facilities have improved their emission control measures and Metro Vancouver and member jurisdictions have seen a significant drop in related air quality complaints. Removing the set of fees for odorous air contaminants would restrict Metro Vancouver's ability to recover costs for effectively regulating odorous air contaminants in proportion to a facility's impact. Eliminating fees for odorous air contaminants would also remove an incentive for businesses to reduce emissions of these contaminants. **Attachment 4** shows how fee rates related to odorous air contaminants have changed over time. Retaining simplified, reduced fee rates for odorous air contaminants will support Metro Vancouver's work to address the 1,500 to 4,000 complaints about odorous emissions received each year. All fee rates will be reviewed every four years.

Introducing a Cap on Application Fees
MVRD Bylaw No. 1330, 2021 has no maximum application fee for businesses seeking permits or approvals. For the highest emitters, which represent 2% of permitted facilities, this could mean an application fee greater than $220,000 for a significant amendment or a new permit.

The recommended amendments include an application fee cap of $220,000 for new permits and significant amendments and $110,000 for permits authorizing emissions from facilities that have expiring permits. Following engagement, the recommended application fee cap has been reduced in response to feedback about competitiveness and comparison with other jurisdictions (**Attachment 5**). The lower fee cap now reflects the typical past level of effort for assessing permit applications for complex facilities. The higher cap reflects the effort anticipated for applications for large, complex, new facilities that generate a high level of public interest. There is no buffer to account for future inflation or for fee rate increases already scheduled in *MVRD Bylaw 1330, 2021*. These are the lowest levels that application fee caps can be reduced to while continuing to support an effective air quality regulation program without shifting the burden on taxpayers. In the past ten years, 85% of application fees have been less than $10,000 and only one has been greater than $220,000.

Interest on Overdue Payments
Staff recommend adding a provision around charging interest on overdue payments consistent with other Metro Vancouver bylaws adopted by the Greater Vancouver Sewerage and Drainage District Board. Interest on overdue payments will continue to accrue after permits and approvals are automatically suspended when payments are not made within 75 days. Introducing interest charges encourages timely payment of fees and supports cost recovery.

NEXT STEPS
If the MVRD Board adopts the amendments, they will apply going forward. They will also apply retroactively to January 1, 2026 where the amendments result in lower fees than under the current bylaw.

ALTERNATIVES
1. THAT the MVRD Board:
   a) give first, second, and third reading to *Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026*; and
   b) adopt *Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026.*

2. THAT the MVRD Board receive for information the report dated January 8, 2026, titled "MVRD Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026".

FINANCIAL IMPLICATIONS

If the MVRD Board adopts Alternative 1, ambiguities in the current bylaw would be rectified and fee rates lowered. This would avoid the application of higher fees that will be charged if the bylaw is not amended. In addition, application fee caps of $110,000 and $220,000 will be introduced to ensure affordability for large facilities and comparability with other jurisdictions. Total revenues from regulatory fees for odorous air contaminants from the seven facilities permitted for these substances would increase gradually and predictably (from $11,000 in 2024 to an estimated $125,000 in 2030) due to clarification of how fees are charged for odorous air contaminants. This will bring Metro Vancouver closer to recovering the program costs for regulating odorous emissions.

If the MVRD Board chooses Alternative 2, the current bylaw will remain unclear in the short term and, in some cases, result in the application of much higher fees than what is proposed in the amendments. The lack of clarity makes it harder for fees to reflect the potential impact of emissions and creates uncertainty for permit holders. Some businesses could be charged application fees greater than $220,000 for permits or significant amendments.

OTHER IMPLICATIONS

Implications for Member Jurisdictions

Air quality complaints to local governments may decrease, because clearer rules and updated fees would support Metro Vancouver's regulatory program, which works to reduce emissions from regulated facilities. For example, the City of Delta has seen fewer complaints where these measures are in place.

Some private facilities that handle green bin material raised concerns that higher regulatory fees could be passed on to member jurisdictions. By adopting Alternative 1, member jurisdictions will have more certainty about future costs, making budgeting and service planning easier.

Implications for Businesses

Alternative 1 would give businesses more clarity and predictability. Businesses would be able to forecast fees for the authorized discharge of air contaminants and evaluate the business case for reducing those air contaminants. No application fee for authorization of emissions from facilities having expiring permits would exceed $110,000, and no application fee for new permits would exceed $220,000. Businesses may continue to be concerned about the costs they incur for complying with Metro Vancouver's requirements for measurement of odorous air contaminants to encourage emissions reduction.

CONCLUSION

The recommended amendments in *MVRD Amendment Bylaw No. 1440, 2026* would improve clarity, predictability, fairness, and competitiveness of the fees in *MVRD Bylaw No. 1330, 2021* while maintaining alignment with Metro Vancouver's principles of discharger-pay (in proportion to the impact of their emissions), fair cost recovery, and emissions reduction. The amendments respond to feedback received through engagement, address ambiguities in bylaw language, and provide a clearer path toward recovering the costs of regulating odorous air contaminants and addressing impacts on the community.

Staff recommend Alternative 1, that the MVRD Board adopt *MVRD Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026*.

ATTACHMENTS

1. MVRD Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026 - Amends Bylaw 1330, 2021.
2. Proposed Amendments to Air Quality Management Fees Bylaw - Engagement Summary, June to August, 2025.
3. MVRD Air Quality Management Fees Regulation Bylaw No. 1330, 2021 – Blacklined Version of Unofficial Consolidation.
4. Fee Rates for Odorous Air Contaminants Trends (2008-2030).
5. Benchmarking of Regulatory Fees and Cost Recovery Approaches.
6. Presentation re: Air Quality Management Fees Bylaw: Recommended Amendments.

REFERENCES

1. *GVRD Air Pollution Control Bylaw No. 92, 1973*. Available at the Metro Vancouver Library at 4515 Central Boulevard, Burnaby, BC.
2. *GVRD Air Quality Management Bylaw No. 725, 1992*. Available at the Metro Vancouver Library at 4515 Central Boulevard, Burnaby, BC.
3. Metro Vancouver. (2025, May). *Proposed Amendments to Metro Vancouver Regional District Air Quality Management Fees Bylaw No. 1330 - Discussion Paper*. https://metrovancouver.org/services/air-quality-climate-action/Documents/air-quality-permit-fee-change-discussion-paper.pdf.

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METRO VANCOUVER REGIONAL DISTRICT
BYLAW NO. 1440, 2026
A bylaw to amend "Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021"

WHEREAS:

A. Metro Vancouver Regional District has enacted the "Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021";

B. That Bylaw contemplates the establishment and payment of fees; and

C. The Board of the Metro Vancouver Regional District wishes to amend the "Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021".

NOW THEREFORE the Board of the Metro Vancouver Regional District enacts as follows:

Citation

1. The official citation of this bylaw is "Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026".

Schedules

2. The following schedules are attached to and form part of this bylaw:
    - Schedule "A-1", Calculation of Air Contaminant Emission Fees until December 31, 2021;
    - Schedule "A-2", Calculation of Air Contaminant Emission Fees from January 1, 2022 to December 31, 2022;
    - Schedule "A-3", Calculation of Air Contaminant Emission Fees from January 1, 2023 to December 31, 2023;
    - Schedule "A-4", Calculation of Air Contaminant Emission Fees from January 1, 2024 to December 31, 2024;
    - Schedule "A-5", Calculation of Air Contaminant Emission Fees from January 1, 2025 to December 31, 2025;
    - Schedule "A-6", Calculation of Air Contaminant Emission Fees from January 1, 2026 to December 31, 2026;
    - Schedule "A-7", Calculation of Air Contaminant Emission Fees from January 1, 2027 to December 31, 2027;
    - Schedule "A-8", Calculation of Air Contaminant Emission Fees from January 1, 2028 to December 31, 2028;
    - Schedule "A-9", Calculation of Air Contaminant Emission Fees from January 1, 2029 to December 31, 2029;
    - Schedule "A-10", Calculation of Air Contaminant Emission Fees for January 1, 2030 and later;
    - Schedule "B", Calculation of Air Contaminant Emission Fees for Odorous Air Contaminants; and
    - Schedule "C", List of Hazardous Air Pollutants.

Amendment of Bylaw

3. "Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021" is amended as follows:

(a) section 2 is replaced with the following:

Schedules

2. The following Schedules are attached to and form part of this Regulation:
   - Schedule "A-1", Calculation of Air Contaminant Emission Fees until December 31, 2021;
   - Schedule "A-2", Calculation of Air Contaminant Emission Fees from January 1, 2022 to December 31, 2022;
   - Schedule "A-3", Calculation of Air Contaminant Emission Fees from January 1, 2023 to December 31, 2023;
   - Schedule "A-4", Calculation of Air Contaminant Emission Fees from January 1, 2024 to December 31, 2024;
   - Schedule "A-5", Calculation of Air Contaminant Emission Fees from January 1, 2025 to December 31, 2025;
   - Schedule "A-6", Calculation of Air Contaminant Emission Fees from January 1, 2026 to December 31, 2026;
   - Schedule "A-7", Calculation of Air Contaminant Emission Fees from January 1, 2027 to December 31, 2027;
   - Schedule "A-8", Calculation of Air Contaminant Emission Fees from January 1, 2028 to December 31, 2028;
   - Schedule "A-9", Calculation of Air Contaminant Emission Fees from January 1, 2029 to December 31, 2029;
   - Schedule "A-10", Calculation of Air Contaminant Emission Fees for January 1, 2030 and later;
   - Schedule "B", Calculation of Air Contaminant Emission Fees for Odorous Air Contaminants; and
   - Schedule "C", List of Hazardous Air Pollutants.

(b) In section 5, the definitions **"billion cubic metre odour units"**, **"coarse particulate matter"**, **"diesel particulate matter"**, **"farm business"**, **"fine particulate matter"**, **"hazardous air pollutants"**, **"metals"**, **"minor amendment"**, **"non-photoreactive volatile organic compounds"**, **"odorous air contaminants"**, **"odour unit"**, **"photoreactive volatile organic compounds"**, and **"total reduced sulphur (TRS)"** are replaced, respectively, with the following:

"billion cubic metre odour unit" means a volume of one billion cubic metres of gas having an odour concentration of one odour unit per cubic metre of gas;

"coarse particulate matter" means particulate matter with an aerodynamic diameter greater than 2.5 micrometres, excluding diesel particulate matter and metals;

"diesel particulate matter" means particulate matter that is discharged from the combustion of diesel fuel or an alternative diesel fuel;

"farm business" has the same meaning as in section 1 of the *Farm Practices Protection (Right to Farm) Act,* RSBC 1996, c. 131;

"fine particulate matter" means particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometres, excluding diesel particulate matter and metals;

"hazardous air pollutants" means substances introduced into the air that cause or may cause cancer, birth defects, or other major health impacts to humans or any life form, and are listed in Schedule C;

"metals" means metals that are not hazardous air pollutants;

"minor amendment" means an amendment to a permit or approval for any of the following purposes:
(a) a decrease in the authorized quantity of the discharge, emission or stored material;
(b) an increase in the authorized quantity of the discharge, emission or stored material that does not exceed 10% of the authorized quantity;
(c) a change in the authorized quality of the discharge, emission or stored material such that, in the opinion of the district director, the change has or will have an equal or lesser impact on the environment;
(d) a change in a monitoring program; or
(e) a change to the works, method of treatment or any other condition of a permit or approval such that, in the opinion of the district director, the change has or will have an equal or lesser impact on the environment.

"non-photoreactive volatile organic compounds" means any volatile organic compounds, except methane, listed as exclusions under "Volatile organic compounds that participate in atmospheric photochemical reactions" in Schedule 1 (List of Toxic Substances, Part 2) of the *Canadian Environmental Protection Act, 1999*, S.C. 1999, c. 33, as amended from time to time;

"odorous air contaminant" is a type of air contaminant, and means any substance that is discharged into the air that, due to its odorous properties,
(a) injures or is capable of injuring the health or safety of a person;
(b) injures or is capable of injuring property or any life form;
(c) interferes or is capable of interfering with the normal conduct of business;
(d) causes or is capable of causing material physical discomfort to a person; or
(e) damages or is capable of damaging the environment;

"odour unit" means an amount of an odorous air contaminant, or odorous air contaminants, that, when evaporated into one cubic metre of neutral gas at standard conditions (at a temperature of 293 Kelvin (K) and normal atmospheric pressure of 101.3 kilo Pascals (kPa) on a wet basis), elicits a physiological response from a panel that is equivalent to that elicited by one European Reference Odour Mass when evaporated into one cubic metre of neutral gas at standard conditions, all as determined in accordance with European Standard EN 13725:2022 ("Stationary source emissions - Determination of odour

concentration by dynamic olfactometry and odour emission rate"), as amended from time to time;

"photoreactive volatile organic compounds" means any volatile organic compounds not defined in this Regulation as either hazardous air pollutants or non-photoreactive volatile organic compounds;

"total reduced sulphur (TRS)" means one or more substances introduced into the air that contain one or more sulphur atoms in their reduced state; and

(c) In section 5, the definitions **"District", "European Reference Odour Mass", "odour concentration"**, and **"whole emission discharge of odorous air contaminants"** are added, in alphabetical order, with the following:

"District" means the Metro Vancouver Regional District;

"European Reference Odour Mass" means a conventional quantity value for an odour unit, equal to a defined mass of a reference substance having known odorous properties, as referenced and used in the European Standard EN 13725:2022 ("Stationary source emissions - Determination of odour concentration by dynamic olfactometry and odour emission rate");

"odour concentration" means the number of odour units in a cubic metre of gas at standard conditions (at a temperature of 293 Kelvin (K) and normal atmospheric pressure of 101.3 kilo Pascals (kPa) on a wet basis), as specified in the European Standard EN 13725: 2022 ("Stationary source emissions - Determination of odour concentration by dynamic olfactometry and odour emission rate"), as amended from time to time;

"whole emission discharge of odorous air contaminants" means the total discharge of odorous air contaminants from an emission source in one year and is the product of the total odorous air contaminants in the discharge, as measured in accordance with European Standard EN 13725:2022 ("Stationary source emissions - Determination of odour concentration by dynamic olfactometry and odour emission rate"), as amended from time to time, expressed in odour units, multiplied by the total volume of the discharge, expressed in cubic metres.

(d) In section 5, the definition **"odour detection threshold"** is deleted.

(e) In section 5, in the definition **"significant amendment"**, the text "and" is deleted.

(f) section 9 is replaced with the following:

Calculation of Air Contaminant Emission Fees

9 (a) If an air contaminant is specified in Schedules A-1 to A-10 or Schedule B, the air contaminant emission fee for that air contaminant (or odorous air contaminant) will be calculated using the corresponding emission fee rate, for the applicable year;

(b) Despite section 9(a), if a substance meets the definition of more than one air contaminant (or odorous air contaminant) listed in Schedules A-1 to A-10 or listed in Table B-2 in Schedule B, the District will charge only one air contaminant emission fee for the substance, calculated at one emission fee rate that is the highest of the fee rates in Schedules A-1 to A-10 or in Table B-2 in Schedule B that are applicable to the substance, for the applicable year.

(c) For greater certainty, section 9(b) does not prohibit the charging of both an air contaminant emission fee for a substance listed in Schedules A-1 to A-10 and an air contaminant emission fee for a whole emission discharge of odorous air contaminants calculated in accordance with sections 3 or 4 in Schedule B, unless that substance is Total Reduced Sulphur (TRS), in which case the air contaminant emission fee for Total Reduced Sulphur (TRS) listed in Schedules A-1 to A-10 will not be charged.

(g) section 11 is replaced with the following:

Permit and Approval Application Fees

11. The application fee payable to the District for an application:

(a) for a new permit or new approval is $1,000 plus twice the total emission fees payable for the emissions specified in the application, to a maximum of $220,000; and

(b) for a permit or approval authorizing the discharge of air contaminants from a facility or operation that has an expiring permit or expiring approval is $1,000 plus the total emission fees payable for the emissions specified in the application, to a maximum of $110,000.

(h) section 12 is replaced with the following:

12. Despite section 11, the application fee payable to the District for an application:

(a) for an open burning approval associated with a farm operation and conducted on a farm as part of a farm business is $100; and

(b) for all other open burning approvals is $1,000.

(i) section 13 is replaced with the following:

Permit and Approval Amendment Application Fees

13. The application fee payable to the District for an application:

(a) for an administrative amendment is $240;

(b) for a minor amendment is $500 plus twice the increase, if any, in the total emission fees payable for the emissions specified in the application; and

(c) for a significant amendment is $1,000 plus twice the increase in the total emission fees payable for the emissions specified in the application, to a maximum of $220,000.

(j) section 15 is replaced with the following:

Annual Fees

15. A holder of a permit must pay annually the total emission fees plus an administrative fee of $200, within 35 days of the date the District issued the invoice for the annual fees.

(k) section 16 is replaced with the following:

Approval Duration Fees

16. A holder of an approval, other than an open burning approval, must pay the total emission fees for the period authorized by the approval plus an administrative fee of $200 within 35 days of the date the District issued the invoice for the approval duration fees.

(l) section 17 is replaced with the following:

Cancellations and Amendments

17. If a permit or approval is cancelled at the request of the holder of the permit or approval, the holder is required to pay to the District any prorated amount of fees as determined by the District. The District will issue an invoice for any prorated amount of fees due or will refund the amount of any overpayment of the applicable fees. Refunds for less than $100 will not be issued.

(m) section 18 is replaced with the following:

18. If a permit or approval is amended, the District will:

(a) issue an invoice for any prorated amount of fees due;

(b) credit the amount of any overpayment against any fees payable in the subsequent year; or

(c) if no fees are payable in the subsequent year, refund any overpayment to the holder of the permit or approval. Refunds for less than $100 will not be issued.

(n) section 19 is replaced with the following:

19. If a permit or approval is amended, the permit or approval holder will pay any amount owing to the District within 35 days of the date the District issued the invoice under section 18(a).

(o) section 20 is replaced with the following:

Interest Charges

20. Where a person fails or refuses to pay an invoice within 40 days of the date the invoice was issued, the person must pay interest at the rate of 1.25% per month (15% per year) compounded monthly and calculated daily on all amounts overdue, including all overdue interest, from the date the charge was due to the date of payment.

(p) section 21 is replaced with the following:

Review of Emission Fee Rates

21. The District will review the emission fee rates in Schedules A-1 to A-10 and in Tables B-1 and B-2 in Schedule B by December 31, 2027 and then at a minimum frequency of once every four years.

(q) A new section 22 is added, in numerical order, with the following:

Repeal of Bylaw

22. "Greater Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1083, 2008" as amended, is hereby repealed.

(r) A new section 23 is added, in numerical order, with the following:

Severability

23. If any portion of this Regulation is deemed *ultra vires*, illegal, invalid, or unenforceable in any way in whole or in part by any court of competent jurisdiction, such decision will not be deemed to invalidate or void the remainder of the Regulation. The parts so held to be *ultra vires*, illegal, invalid, or unenforceable must be deemed not to have been part of this Regulation from its adoption. The remainder of the Regulation will have the same force and effect as if the parts that have been deemed *ultra vires*, illegal, invalid, or unenforceable had not been included in this Regulation when it was adopted.

(s) Schedule "A-1", Calculation of Air Contaminant Emission Fees until December 31, 2021, is replaced by Schedule "A-1", Calculation of Air Contaminant Emission Fees until December 31, 2021, which is attached to and forms part of this bylaw;

(t) Schedule "A-2", Calculation of Air Contaminant Emission Fees from January 1, 2022 to December 31, 2022, is replaced by Schedule "A-2", Calculation of Air Contaminant Emission Fees from January 1, 2022 to December 31, 2022, which is attached to and forms part of this bylaw;

(u) Schedule "A-3", Calculation of Air Contaminant Emission Fees from January 1, 2023 to December 31, 2023, is replaced by Schedule "A-3", Calculation of Air Contaminant Emission Fees from January 1, 2023 to December 31, 2023, which is attached to and forms part of this bylaw;

(v) Schedule "A-4", Calculation of Air Contaminant Emission Fees from January 1, 2024 to December 31, 2024, is replaced by Schedule "A-4", Calculation of Air Contaminant Emission Fees from January 1, 2024 to December 31, 2024, which is attached to and forms part of this bylaw;

(w) Schedule "A-5", Calculation of Air Contaminant Emission Fees from January 1, 2025 to December 31, 2025, is replaced by Schedule "A-5", Calculation of Air Contaminant Emission

Fees from January 1, 2025 to December 31, 2025, which is attached to and forms part of this bylaw;

(x) Schedule "A-6", Calculation of Air Contaminant Emission Fees from January 1, 2026 to December 31, 2026, is replaced by Schedule "A-6", Calculation of Air Contaminant Emission Fees from January 1, 2026 to December 31, 2026, which is attached to and forms part of this bylaw;

(y) Schedule "A-7", Calculation of Air Contaminant Emission Fees from January 1, 2027 to December 31, 2027, is replaced by Schedule "A-7", Calculation of Air Contaminant Emission Fees from January 1, 2027 to December 31, 2027, which is attached to and forms part of this bylaw;

(z) Schedule "A-8", Calculation of Air Contaminant Emission Fees for January 1, 2028 and later, is replaced by Schedule "A-8", Calculation of Air Contaminant Emission Fees from January 1, 2028 to December 31, 2028, which is attached to and forms part of this bylaw;

(aa) Schedule "A-9", Calculation of Air Contaminant Emission Fees from January 1, 2029 to December 31, 2029, which is attached to and forms part of this bylaw, is added;

(bb) Schedule "A-10", Calculation of Air Contaminant Emission Fees for January 1, 2030 and later, which is attached to and forms part of this bylaw, is added;

(cc) Schedule "B", Calculation of Odorous Air Contaminant Emission Fees, is replaced by Schedule "B", Calculation of Air Contaminant Emission Fees for Odorous Air Contaminants, which is attached to and forms part of this bylaw; and

(dd) Schedule "C", List of Hazardous Air Pollutants, which is attached to and forms part of this bylaw, is added.

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

Adopted this _____ day of _____, _____.

Mike Hurley, Chair

Dorothy Shermer, Corporate Officer

Schedule A-1

Schedule A-1: Calculation of Air Contaminant Emission Fees until December 31, 2021

1. Until December 31, 2021, **air contaminant emission fees** for the discharge of air contaminants listed in Table A-1 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,
A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-1, and
B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-1.

Table A-1 – Emission Fee Rates for Air Contaminants in 2021

Column 1 (A) **Air Contaminant**	Column 2 (B) **Emission fee rate ($/tonne)**
Particulate Matter (filterable and condensable from solely combustion sources)	$300
Particulate Matter (filterable and condensable from solely non-combustion sources)	$30
Fine Particulate Matter (filterable and condensable from combined combustion and non-combustion sources, not fuelled solely by natural gas and/or propane)	$300
Particulate Matter (all other filterable from combined combustion and non-combustion sources, not fuelled solely by natural gas and/or propane)	$30
Nitrogen Oxides (NOx)	$50
Photoreactive volatile organic compounds	$100
Non-photoreactive volatile organic compounds	$30
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$150
Hazardous Air Pollutants	$1,000
Other (not otherwise specified)	$30

Schedule A-2

Schedule A-2: Calculation of Air Contaminant Emission Fees from January 1, 2022 to December 31, 2022

1. From January 1, 2022 to December 31, 2022, **air contaminant emission fees** for the discharge of air contaminants listed in Table A-2 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-2, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-2.

Table A-2 – Emission Fee Rates for Air Contaminants in 2022

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$39
Coarse Particulate Matter	$31
Coarse Particulate Matter containing soy dust	$51
Diesel Particulate Matter	$964
Fine Particulate Matter	$514
Hazardous Air Pollutants	$1,143
Metals	$183
Methane	$180
Nitrogen Oxides (NOx)	$64
Non-photoreactive volatile organic compounds	$31
Ozone	$63
Photoreactive volatile organic compounds	$123
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$367
Other (not otherwise specified)	$31
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-3

Schedule A-3: Calculation of Air Contaminant Emission Fees from January 1, 2023 to December 31, 2023

1. From January 1, 2023 to December 31, 2023, **air contaminant emission fees** for the discharge of air contaminants listed in Table A-3 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-3, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-3.

Table A-3 – Emission Fee Rates for Air Contaminants in 2023

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/ tonne) (B)**
Ammonia	$47
Coarse Particulate Matter	$33
Coarse Particulate Matter containing soy dust	$73
Diesel Particulate Matter	$1,629
Fine Particulate Matter	$729
Hazardous Air Pollutants	$1,286
Metals	$336
Methane	$341
Nitrogen Oxides (NOx)	$79
Non-photoreactive volatile organic compounds	$33
Ozone	$96
Photoreactive volatile organic compounds	$146
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$583
Other (not otherwise specified)	$33
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-4

Schedule A-4: Calculation of Air Contaminant Emission Fees from January 1, 2024 to December 31, 2024

1. From January 1, 2024 to December 31, 2024**, air contaminant emission fees** for the discharge of air contaminants listed in Table A-4 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-4, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-4.

Table A-4 – Emission Fee Rates for Air Contaminants in 2024

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$56
Coarse Particulate Matter	$34
Coarse Particulate Matter containing soy dust	$94
Diesel Particulate Matter	$2,293
Fine Particulate Matter	$943
Hazardous Air Pollutants	$1,429
Metals	$489
Methane	$497
Nitrogen Oxides (NOx)	$93
Non-photoreactive volatile organic compounds	$34
Ozone	$129
Photoreactive volatile organic compounds	$169
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$800
Other (not otherwise specified)	$34
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-5

Schedule A-5: Calculation of Air Contaminant Emission Fees from January 1, 2025 to December 31, 2025

1. From January 1, 2025 to December 31, 2025, **air contaminant emission fees** for the discharge of air contaminants listed in Table A-5 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-5, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-5.

Table A-5 – Emission Fee Rates for Air Contaminants in 2025

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$64
Coarse Particulate Matter	$36
Coarse Particulate Matter containing soy dust	$116
Diesel Particulate Matter	$2,957
Fine Particulate Matter	$1,157
Hazardous Air Pollutants	$1,571
Metals	$641
Methane	$653
Nitrogen Oxides (NOx)	$107
Non-photoreactive volatile organic compounds	$36
Ozone	$161
Photoreactive volatile organic compounds	$191
Sulphur Oxides (SOx)	$100
Other (not otherwise specified)	$36
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-6

Schedule A-6: Calculation of Air Contaminant Emission Fees from January 1, 2026 to December 31, 2026

1. Subject to section 2 of Schedule A-6, this Schedule A-6 is retroactive to January 1, 2026, with effect on and after that date.

2. For the period from January 1, 2026 to the date of adoption of *Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026*, the District must not charge an air contaminant emission fee payable under Schedule A-6 that is greater than the amount of the air contaminant emission fee that the District would have calculated for that period under this Schedule A-6 as it read before being amended by *Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026*.

3. For 2026**, air contaminant emission fees** for the discharge of air contaminants listed in Table A-6 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-6, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-6.

Table A-6 – Emission Fee Rates for Air Contaminants in 2026

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$73
Coarse Particulate Matter	$37
Coarse Particulate Matter containing soy dust	$137
Diesel Particulate Matter	$3,621
Fine Particulate Matter	$1,371
Hazardous Air Pollutants	$1,714
Metals	$794
Methane	$809
Nitrogen Oxides (NOx)	$121
Non-photoreactive volatile organic compounds	$37
Ozone	$194
Photoreactive volatile organic compounds	$214
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$800
Other (not otherwise specified)	$37

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-7

Schedule A-7: Calculation of Air Contaminant Emission Fees from January 1, 2027 to December 31, 2027

1. From January 1, 2027 to December 31, 2027, **air contaminant emission fees** for the discharge of air contaminants listed in Table A-7 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-7, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-7.

Table A-7 – Emission Fee Rates for Air Contaminants in 2027

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$81
Coarse Particulate Matter	$39
Coarse Particulate Matter containing soy dust	$159
Diesel Particulate Matter	$4,286
Fine Particulate Matter	$1,586
Hazardous Air Pollutants	$1,857
Metals	$947
Methane	$964
Nitrogen Oxides (NOx)	$136
Non-photoreactive volatile organic compounds	$39
Ozone	$227
Photoreactive volatile organic compounds	$237
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$1,325
Other (not otherwise specified)	$39
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-8

Schedule A-8: Calculation of Air Contaminant Emission Fees from January 1, 2028 to December 31, 2028

1. From January 1, 2028 to December 31, 2028, **air contaminant emission fees** for the discharge of air contaminants listed in Table A-8 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-8, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-8.

Table A-8 – Emission Fee Rates for Air Contaminants in 2028

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$90
Coarse Particulate Matter	$40
Coarse Particulate Matter containing soy dust	$180
Diesel Particulate Matter	$4,950
Fine Particulate Matter	$1,800
Hazardous Air Pollutants	$2,000
Metals	$1,100
Methane	$1,120
Nitrogen Oxides (NOx)	$150
Non-photoreactive volatile organic compounds	$40
Ozone	$260
Photoreactive volatile organic compounds	$260
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$1,850
Other (not otherwise specified)	$40
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-9

Schedule A-9: Calculation of Air Contaminant Emission Fees from January 1, 2029 to December 31, 2029

1. From January 1, 2029 to December 31, 2029, **air contaminant emission fees** for the discharge of air contaminants listed in Table A-9 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-9, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-9.

Table A-9 – Emission Fee Rates for Air Contaminants in 2029

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$90
Coarse Particulate Matter	$40
Coarse Particulate Matter containing soy dust	$180
Diesel Particulate Matter	$4,950
Fine Particulate Matter	$1,800
Hazardous Air Pollutants	$2,000
Metals	$1,100
Methane	$1,120
Nitrogen Oxides (NOx)	$150
Non-photoreactive volatile organic compounds	$40
Ozone	$260
Photoreactive volatile organic compounds	$260
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$2,375
Other (not otherwise specified)	$40
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-10

Schedule A-10: Calculation of Air Contaminant Emission Fees for January 1, 2030 and later

1. From January 1, 2030 and onwards, **air contaminant emission fees** for the discharge of air contaminants listed in Table A-10 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-10, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-10.

Table A-10 – Emission Fee Rates for Air Contaminants in 2030 and later

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$90
Coarse Particulate Matter	$40
Coarse Particulate Matter containing soy dust	$180
Diesel Particulate Matter	$4,950
Fine Particulate Matter	$1,800
Hazardous Air Pollutants	$2,000
Metals	$1,100
Methane	$1,120
Nitrogen Oxides (NOx)	$150
Non-photoreactive volatile organic compounds	$40
Ozone	$260
Photoreactive volatile organic compounds	$260
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$2,900
Other (not otherwise specified)	$40
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule B

Schedule B: Calculation of Air Contaminant Emission Fees for Odorous Air Contaminants

1. Subject to section 2 of Schedule B, this Schedule B is retroactive to January 1, 2026, with effect on and after that date.

2. For the period from January 1, 2026 to the date of adoption of *Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026*, the District must not charge an air contaminant emission fee payable in respect of the discharge of odorous air contaminants from an emission source that is greater than the amount of the air contaminant emission fee payable in respect of the discharge of odorous air contaminants from that emission source that the District would have calculated for that period under Schedule B as it read before being amended by *Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026*.

Whole emission discharge of odorous air contaminants

3. Where an emission source in a permit or approval has an odour unit emission limit, then the air contaminant emission fee payable in respect of the discharge of odorous air contaminants from that emission source is calculated upon the whole emission discharge of odorous air contaminants from that emission source, as follows:

   Air contaminant emission fee ($) = (Emission fee rate for applicable year in columns 2 to 6 of Table B-1 in $ per billion cubic metre odour units) x (total annual authorized volume of discharge in cubic metres) x (emission limit in permit for the odour unit discharge) x 10^{-9} (to convert billion cubic metres to cubic metres);

4. Where sections 3 and 5 of this Schedule do not apply, and a permit or approval requires measurement of odour units for an emission source, then the air contaminant emission fee payable in respect of the discharge of odorous air contaminants from that emission source is calculated upon the whole emission discharge of odorous air contaminants from that source, as follows:

   Air contaminant emission fee ($) = (Emission fee rate for applicable year in columns 2 to 6 of Table B-1 in $ per billion cubic metre odour units) x (total annual authorized volume of discharge in cubic metres) x (odour units measured) x 10^{-9} (to convert billion cubic metres to cubic metres);

Specified odorous air contaminants

5. Where an emission source in a permit or approval does not have an odour unit emission limit, but it does have emission limits for one or more odorous air contaminants listed in column 1 of Table B-2, then the air contaminant emission fee payable in respect of the discharge of each of the specified odorous air contaminants from that emission source is calculated as follows:

Air contaminant emission fee for each specified odorous air contaminant ($) = [(emission fee rate for that specified odorous air contaminant in $/kg for applicable year listed in columns 2 to 6 in Table B-2) x (total annual authorized volume of discharge in cubic metres) x (emission limit in permit for that specified odorous air contaminant in mg/m^3) / 1,000,000 mg/kg];

6. Where sections 3, 4, and 5 of this Schedule do not apply, and a permit or approval requires measurement of one or more specified odorous air contaminants listed in column 1 of Table B-2 for an emission source, then the air contaminant emission fee payable in respect of the discharge of each of the specified odorous air contaminants is calculated as follows:

   Air contaminant emission fee for each specified odorous air contaminant ($) = [(emission fee rate for that specified odorous air contaminant in $/kg for applicable year listed in columns 2 to 6 in Table B-2) x (total annual authorized volume of discharge in cubic metres) x (measured concentration of that specified odorous air contaminant in mg/m^3) / 1,000,000 mg/kg];

   For clarity, measured values are used to determine air contaminant emission fees if the measured values are at or above the analytical method detection limit.

Fee Reduction

7. Where air contaminant emission fees for odorous air contaminants are calculated based on sections 3 or 4 of this Schedule B for whole emission discharge of odorous air contaminants, the permittee or approval holder may apply for a reduction in air contaminant emission fees for odorous air contaminants, as follows:

(a) Air contaminant emission fees for odorous air contaminants may be reduced by 75% if the permittee or approval holder demonstrates to the satisfaction of the district director through approved dispersion modelling that odorous air contaminants will not exceed one odour unit at the nearest odorous air contaminant sensitive receptor location 99.5% of the time based on a ten-minute average of authorized maximum (permitted) emissions, or 99.8% of the time based on measured emissions; and

(b) If conditions of section 7(a) of this Schedule B cannot be met, air contaminant emission fees for odorous air contaminants may be reduced by 50% if the permittee or approval holder demonstrates to the satisfaction of the district director through approved dispersion modelling that odorous air contaminants will not exceed three odour units at the nearest odorous air contaminant sensitive receptor location 99.5% of the time based on a ten-minute average of authorized maximum (permitted) emissions, or 99.8% of the time for measured emissions.

Table B-1 – Emission Fee Rates for Whole Emission Discharge of Odorous Air Contaminants

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
	Emission fee rate from January 1, 2026 to December 31, 2026	**Emission fee rate from January 1, 2027 to December 31, 2027**	**Emission fee rate from January 1, 2028 to December 31, 2028**	**Emission fee rate from January 1, 2029 to December 31, 2029**	**Emission fee rate for January 1, 2030 and later**
Emission fee rate ($ per billion cubic metre odour unit)	5	8.75	12.5	16.25	20

Table B-2 – Emission Fee Rates for Specified Odorous Air Contaminants

Column 1 **Odorous Air Contaminant**	Column 2 **Emission fee rate ($/kg), from January 1, 2026 to December 31, 2026**	Column 3 **Emission fee rate ($/kg), January 1, 2027 to December 31, 2027**	Column 4 **Emission fee rate ($/kg), from January 1, 2028 to December 31, 2028**	Column 5 **Emission fee rate ($/kg) from January 1, 2029 to December 31, 2029**	Column 6 **Emission fee rate ($/kg) for January 1, 2030 and later**
1-nonene	0.218	0.362	0.507	0.651	0.795
1-octene	0.249	0.414	0.579	0.744	0.909
2,3-pentanedione	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
2-chlorophenol	0.293	0.487	0.681	0.876	1.070
2-heptanone (methyl n-amyl ketone)	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
2-methyl butanoic acid	0.214 [a]	0.241	0.336	0.432	0.528
2-methyl-1-propanol (isobutanol)	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
2-methylpropionoic acid (isobutyric acid)	0.214 [a]	0.352	0.492	0.632	0.772
3-methyl butanoic acid (isovaleric acid)	3.508	5.832	8.155	10.479	12.803
3-methylbutanal (isovaleraldehyde)	3.244	5.393	7.543	9.692	11.841
Acetic acid (ethanoic acid)	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.283
Butanal	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
Butanoic acid (butyric acid)	1.669	2.775	3.881	4.987	6.093
Butyl mercaptan	10.000	35.000	35.000	35.000	35.000
Decanal (decaldehyde, capradehyde)	0.214 [a]	0.322	0.450	0.579	0.707
Diacetyl	6.491	10.792	15.093	19.393	23.694
Diethyl disulphide	0.800 [b]	1.325 [b]	1.850 [b]	2.375 [b]	2.900 [b]
Diethyl sulphide	9.389	15.610	21.831	28.051	34.272
Dimethyl disulphide	0.800 [b]	1.325 [b]	1.850 [b]	2.375 [b]	2.900 [b]
Dimethyl sulphide	0.800 [b]	1.325 [b]	1.850 [b]	2.375 [b]	2.900 [b]
Ethyl isovalerate	10.000	30.766	35.000	35.000	35.000
Ethyl mercaptan (ethanethiol)	10.000	35.000	35.000	35.000	35.000

Column 1 **Odorous Air Contaminant**	Column 2 **Emission fee rate ($/kg), from January 1, 2026 to December 31, 2026**	Column 3 **Emission fee rate ($/kg), January 1, 2027 to December 31, 2027**	Column 4 **Emission fee rate ($/kg), from January 1, 2028 to December 31, 2028**	Column 5 **Emission fee rate ($/kg) from January 1, 2029 to December 31, 2029**	Column 6 **Emission fee rate ($/kg) for January 1, 2030 and later**
Hexanal (hexaldehyde)	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
Hexanoic acid (caproic acid)	0.401	0.667	0.932	1.198	1.464
Hydrogen sulphide	2.000	3.325	4.650	5.975	7.300
Isobutyl acetate	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
Isobutyl acrylate	0.246	0.409	0.572	0.735	0.898
Isobutyl mercaptan	10.000	35.000	35.000	35.000	35.000
Isohexanoic acid	0.601	1.000	1.398	1.797	2.195
Isopentanol	0.214 [a]	0.310	0.434	0.557	0.681
Isopropyl mercaptan	10.000	35.000	35.000	35.000	35.000
Isopropylbenzene	1.714 [c]	1.857 [c]	2.000 [c]	2.000 [c]	2.000 [c]
Methacrolein	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
Methyl acrylate	0.214 [a]	0.237 [a]	0.260 [a]	0.277	0.339
Methyl isoamyl ketone	0.214 [a]	0.237 [a]	0.309	0.397	0.485
Methyl isovalerate	0.214 [a]	0.237 [a]	0.260 [a]	0.327	0.399
Methyl mercaptan (methanethiol)	8.300	13.799	19.297	24.796	30.294
Methylamine	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
n-Amyl mercaptan	10.000	35.000	35.000	35.000	35.000
n-Butyl acrylate	0.437	0.727	1.017	1.307	1.597
n-Butylaldehyde	0.578	0.962	1.345	1.728	2.111
n-Butylbenzene	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
n-Decylaldehyde	0.436	0.725	1.014	1.302	1.591
n-Heptylaldehyde	1.336	2.221	3.107	3.992	4.877
n-Hexanol	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
n-Hexyl acetate	0.214 [a]	0.237 [a]	0.277	0.356	0.435
n-Hexylaldehyde	0.996	1.656	2.316	2.976	3.636
n-Nonylaldehyde	0.578	0.961	1.343	1.726	2.109
n-Octylaldehyde	10.000	35.000	35.000	35.000	35.000
Nonanoic acid	0.214 [a]	0.237 [a]	0.260 [a]	0.263	0.321
Octanal	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.295
p-Diethylbenzene	0.675	1.122	1.569	2.016	2.464

Column 1 **Odorous Air Contaminant**	Column 2 **Emission fee rate ($/kg), from January 1, 2026 to December 31, 2026**	Column 3 **Emission fee rate ($/kg), January 1, 2027 to December 31, 2027**	Column 4 **Emission fee rate ($/kg), from January 1, 2028 to December 31, 2028**	Column 5 **Emission fee rate ($/kg) from January 1, 2029 to December 31, 2029**	Column 6 **Emission fee rate ($/kg) for January 1, 2030 and later**
Pentanal (valeraldehyde)	0.791	1.315	1.840	2.364	2.888
Pentanoic acid (valeric acid)	7.395	12.294	17.192	22.091	26.990
p-Ethyltoluene	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
Propanal (propionaldehyde)	1.714 [c]	1.857 [c]	2.000 [c]	2.000 [c]	2.000 [c]
Propionic acid	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
Propyl mercaptan (propanethiol)	10.000	35.000	35.000	35.000	35.000
Propylbenzene	0.214 [a]	0.237 [a]	0.260 [a]	0.28	0.34
Pyridine	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
Sec-butyl mercaptan	10.00	20.33	28.43	35.00	35.00
Sec-butyl acetate	0.214 [a]	0.237 [a]	0.260 [a]	0.299	0.366
Tert-butyl mercaptan	10.000	17.763	24.842	31.920	35.000
Tetrahydrothiophene	0.800 [b]	1.325 [b]	1.850 [b]	2.375 [b]	2.900 [b]
Thiophene	0.593	0.986	1.379	1.772	2.165
Trimethylamine	10.000	24.562	34.350	35.000	35.000
Undecanal	0.214 [a]	0.237 [a]	0.260 [a]	0.285	0.348

a – Emission fee rate for photoreactive volatile organic compounds will be charged, since that emission fee rate is the highest applicable emission fee rate for the applicable year.

b- Emission fee rate for total reduced sulphur (TRS) will be charged, since that emission fee rate is the highest applicable emission fee rate for the applicable year.

c – Emission fee rate for hazardous air pollutants will be charged, since that emission fee rate is the highest applicable emission fee rate for the applicable year.

Schedule C

Schedule C: List of Hazardous Air Pollutants

Chemical Abstracts Service Number (CAS)	Substance Name
79-34-5	1,1,2,2-Tetrachloroethane
79-00-5	1,1,2-Trichloroethane
57-14-7	1,1-Dimethyl hydrazine
120-82-1	1,2,4-Trichlorobenzene
96-12-8	1,2-Dibromo-3-chloropropane
107-06-2	1,2-Dichloroethane
122-66-7	1,2-Diphenylhydrazine
106-88-7	1,2-Epoxybutane (Ethyloxirane)
75-55-8	1,2-Propylenimine (2-Methyl aziridine)
106-99-0	1,3-Butadiene
78-79-5	1,3-Butadiene, 2-methyl- (C_5H_8)
542-75-6	1,3-Dichloropropene
1120-71-4	1,3-Propane sultone (1,2-Oxathiolane, 2,2-dioxide)
106-46-7	1,4-Dichlorobenzene(p)
123-91-1	1,4-Dioxane (1,4-Diethyleneoxide)
106-94-5	1-Bromopropane
1589-47-5	1-Propanol, 2-methoxy- ($C_4H_{10}O_2$)
540-84-1	2,2,4-Trimethylpentane
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin
95-95-4	2,4,5-Trichlorophenol
88-06-2	2,4,6-Trichlorophenol
94-75-7	2,4-D, salts and esters
51-28-5	2,4-Dinitrophenol
121-14-2	2,4-Dinitrotoluene
95-80-7	2,4-Toluene diamine (1,3-Benzenediamine, 4-methyl-)
584-84-9	2,4-Toluene diisocyanate (Benzene, 2,4-diisocyanato-1-methyl-)
53-96-3	2-Acetylaminofluorene
96-29-7	2-Butanone, oxime (C_4H_9NO)
111-76-2	2-Butoxyethanol ($C_6H_{14}O_2$)
532-27-4	2-Chloroacetophenone
109-86-4	2-Methoxyethanol ($C_3H_8O_2$)
6407-78-9	2-Naphthalenol, 1-[(4-methyl-2-nitrophenyl)azo]- ($C_{17}H_{13}N_3O_3$)
85-86-9	2-Naphthalenol, 1-[[4-(phenylazo)phenyl]azo]- ($C_{22}H_{16}N_4O$)
79-46-9	2-Nitropropane
464178-90-3	2-propen-1-ol, reaction products with pentafluoroiodoethane tetrafluoroethylene telomer, dehydroiodinated, reaction products with epichlorohydrin and triethylenetetramine

Chemical Abstracts Service Number (CAS)	Substance Name
459415-06-6	2-propenoic acid, 2-methyl-, 2-methylpropyl ester, polymer with butyl 2-propenoateand 2,5 furandione, gamma-omega-perfluoro-C8-14-alkyl esters, tert-Bu benzenecarboperoxoate-initiated
203743-03-7	2-propenoic acid, 2-methyl-, hexadecyl ester, polymers with 2-hydroxyethyl methacrylate, gamma-omega-perfluoro-C10-16-alkyl acrylate and stearyl methacrylate
91-94-1	3,3-Dichlorobenzidene
119-90-4	3,3-Dimethoxybenzidine
119-93-7	3,3'-Dimethyl benzidine ([1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-)
135158-28-2	(4-Chlorophenyl)cyclopropylmethanone,O-[(4-nitrophenyl)methyl]oxime ($C_{17}H_{15}ClN_2O_3$)
101-14-4	4,4-Methylene bis(2-chloroaniline); (Benzenamine, 4,4'-methylenebis[2-chloro-)
101-77-9	4,4'-Methylenedianiline
534-52-1	4,6-Dinitro-o-cresol, and salts (Phenol, 2-methyl-4,6-dinitro-)
92-67-1	4-Aminobiphenyl
92-93-3	4-Nitrobiphenyl
100-02-7	4-Nitrophenol
75-07-0	Acetaldehyde
60-35-5	Acetamide
2832-40-8	Acetamide, N-[4-[(2-hydroxy-5-methylphenyl)azo]phenyl]- ($C_{15}H_{15}N_3O_2$)
75-05-8	Acetonitrile
98-86-2	Acetophenone
107-02-8	Acrolein
79-06-1	Acrylamide
79-10-7	Acrylic acid
107-13-1	Acrylonitrile
107-05-1	Allyl chloride (3-chloropropene)
1336-21-6	Ammonia dissolved in water
62-53-3	Aniline
No applicable CAS number	Antimony Compounds
No applicable CAS number	Arsenic Compounds (inorganic including arsine)
1332-21-4	Asbestos
50-32-8	Benz[a]pyrene (Polycyclic aromatic hydrocarbons)
71-43-2	Benzene (including benzene from gasoline)
100-44-7	Benzene, (chloromethyl)- (C_7H_7Cl)
2536-05-2	Benzene, 1,1'-methylenebis[2-isocyanato- ($C_{15}H_{10}N_2O_2$)
26447-40-5	Benzene, 1,1'-methylenebis[isocyanato- (non-isomeric-specific) ($C_{15}H_{10}N_2O_2$)
93-58-3	Benzene, 1,2-dimethoxy-4-(2-propenyl)- ($C_{11}H_{14}O_2$)

Chemical Abstracts Service Number (CAS)	Substance Name
91-08-7	Benzene, 1,3,-diisocyanato-2-methyl- (2,6-TDI) (Toluene diisocyanates ($C_9H_6N_2O_2$))
26471-62-5	Benzene, 1,3,-diisocyanatomethyl- (TDI mixed isomers) (Toluene diisocyanates ($C_9H_6N_2O_2$))
53-19-0	Benzene, 1-chloro-2-[2,2-dichloro-1-(4-chlorophenyl)ethyl]-, which has the molecular formula $C_{14}H_{10}Cl_4$
88-72-2	Benzene, 1-methyl-2-nitro- ($C_7H_7NO_2$)
584-84-9	Benzene, 2,4,-diisocyanato-1-methyl- (2,4-TDI) (Toluene diisocyanates ($C_9H_6N_2O_2$))
92-87-5	Benzidine
205-99-2	Benzo[b]fluoranthene (Polycyclic aromatic hydrocarbons)
205-82-3	Benzo[j]fluoranthene (Polycyclic aromatic hydrocarbons)
207-08-9	Benzo[k]fluoranthene (Polycyclic aromatic hydrocarbons)
98-07-7	Benzotrichloride
100-44-7	Benzyl chloride
No applicable CAS number	Beryllium Compounds
57-57-8	beta-Propiolactone
92-52-4	Biphenyl
117-81-7	Bis(2-ethylhexyl)phthalate (DEHP)
542-88-1	Bis(chloromethyl)ether
80-05-7	Bisphenol A ($C_{15}H_{16}O_2$)
7758-01-2	Bromic acid, potassium salt ($KBrO_3$)
75-25-2	Bromoform (tribromo-methane)
No applicable CAS number	Cadmium Compounds
156-62-7	Calcium cyanamide
133-06-2	Captan
63-25-2	Carbaryl
75-15-0	Carbon disulfide
56-23-5	Carbon tetrachloride
463-58-1	Carbonyl sulfide
120-80-9	Catechol (1,2-benzenediol)
133-90-4	Chloramben (3-Amino-2,5-dichlorobenzoic acid)
57-74-9	Chlordane
No applicable CAS number	Chlorinated wastewater effluents
No applicable CAS number	Chlorinated alkanes that have the molecular formula CnHxCl(2n+2-x) in which $10 \leq n \leq 20$
7782-50-5	Chlorine
79-11-8	Chloroacetic acid
108-90-7	Chlorobenzene
510-15-6	Chlorobenzilate

Chemical Abstracts Service Number (CAS)	Substance Name
67-66-3	Chloroform
107-30-2	Chloromethyl methyl ether
126-99-8	Chloroprene
No applicable CAS number	Chromium Compounds
No applicable CAS number	Cobalt Compounds
No applicable CAS number	Coke Oven Emissions
No applicable CAS number	Compounds that consist of a perfluorinated alkyl group that has the molecular formula C_nF_{2n+1} in which $8 \leq n \leq 20$ and that is directly bonded to any chemical moiety other than a fluorine, chlorine or bromine atom
No applicable CAS number	Compounds that consist of a perfluorinated alkyl group that has the molecular formula C_nF_{2n+1} in which n is equal to 7 or 8 and that is directly bonded to any chemical moiety other than a fluorine, chlorine or bromine atom
No applicable CAS number	Compounds with $C_8F_{17}SO_2$, $C_8F_{17}SO_3$, or $C_8F_{17}SO_2N$ groups
No applicable CAS number	Creosote-impregnated waste materials
1319-77-3	Cresols/Cresylic acid (isomers and mixture)
98-82-8	Cumene
No applicable CAS number	Cyanide Compounds, X'CN where X = H' or any other group where a formal dissociation may occur. For example, KCN or Ca(CN)2
556-67-2	Cyclotetrasiloxane, octamethyl- ($C_8H_{24}O_4Si_4$)
3547-04-4	DDE
334-88-3	Diazomethane
132-64-9	Dibenzofurans
2629-41-4	Dibenzo-para-dioxin ($C_{12}H_8O_2$)
84-74-2	Dibutylphthalate
789-02-6 50-29-3	Dichlorodiphenyltrichloroethane (DDT), which has the molecular formula $C_{14}H_9Cl_5$
111-44-4	Dichloroethyl ether (Bis(2-chloroethyl)ether)
62-73-7	Dichlorvos
111-42-2	Diethanolamine
64-67-5	Diethyl sulfate (diethyl ester sulfuric acid)
60-11-7	Dimethyl aminoazobenzene
79-44-7	Dimethyl carbamoyl chloride
68-12-2	Dimethyl formamide (Formamide, N,N-dimethyl-)
131-11-3	Dimethyl phthalate
77-78-1	Dimethyl sulfate
2385-85-5	Dodecachloropentacyclo [5.3.0.02,6.03,9.04,8] decane (Mirex)
No applicable CAS number	Effluents from pulp mills using bleaching
No applicable CAS number	Effluents from textile mills using wet processing
106-89-8	Epichlorohydrin (l-Chloro-2,3-epoxypropane); Oxirane, (chloromethyl)

Chemical Abstracts Service Number (CAS)	Substance Name
111-77-3	Ethanol, 2-(2-methoxyethoxy)- ($C_5H_{12}O_3$)
110-49-6	Ethanol, 2-methoxy-, acetate ($C_5H_{10}O_3$)
140-88-5	Ethyl acrylate (2-Propenoic acid, ethyl ester)
100-41-4	Ethyl benzene
51-79-6	Ethyl carbamate (Urethane), (Carbamic acid, ethyl ester)
75-00-3	Ethyl chloride (Chloroethane)
106-93-4	Ethylene dibromide (Dibromoethane)
107-06-2	Ethylene dichloride (1,2-Dichloroethane)
107-21-1	Ethylene glycol (1,2-Ethanediol)
151-56-4	Ethylene imine (Aziridine)
75-21-8	Ethylene oxide
96-45-7	Ethylene thiourea (2-Imidazolidinethione)
75-34-3	Ethylidene dichloride (1,1-Dichloroethane)
106-88-7	Ethyloxirane (C_4H_8O)
No applicable CAS number	Fine mineral fibers, includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less
50-00-0	Formaldehyde
68476-30-2	Fuel Oil No. 2
No applicable CAS number	Glycol ethers, Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n -OR' where n = 1, 2, or 3 R = alkyl or aryl groups R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH2CH)n-OH. Polymers are excluded from the glycol category.
76-44-8	Heptachlor
3194-55-6	Hexabromocyclododecane, which has the molecular formula $C_{12}H_{18}Br_6$
118-74-1	Hexachlorobenzene
87-68-3	Hexachlorobutadiene
77-47-4	Hexachlorocyclopentadiene
67-72-1	Hexachloroethane
822-06-0	Hexamethylene-1,6-diisocyanate
680-31-9	Hexamethylphosphoramide
110-54-3	Hexane
1246542-93-7	Hexane, 1,6-diisocyanato-, homopolymer, reaction products with alpha-fluoro-omega-2-hydroxyethyl-poly(difluoro- methylene), C16-20-branched alcohols and 1-octadecanol
103-23-1	Hexanedioic acid, bis(2-ethylhexyl) ester ($C_{22}H_{42}O_4$)
302-01-2	Hydrazine
7647-01-0	Hydrochloric acid

Chemical Abstracts Service Number (CAS)	Substance Name
7664-39-3	Hydrogen fluoride (Hydrofluoric acid)
7783-06-4	Hydrogen sulfide
123-31-9	Hydroquinone (1,4-Benzenediol)
193-39-5	indeno[1,2,3-cd]pyrene (Polycyclic aromatic hydrocarbons)
No applicable CAS number	Inorganic Chloramines ($NH_nCl_{(3-n)}$,$0 \leq n \leq 2$)
No applicable CAS number	Inorganic fluorides
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester ($C_{15}H_{10}N_2O_2 \bullet [C_8H_5NO]_n$)
78-59-1	Isophorone
No applicable CAS number	Lead Compounds
58-89-9	Lindane (all isomers); (Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1α,2α,3β,4α,5α,6β)-)
108-31-6	Maleic anhydride (2,5-Furandione)
No applicable CAS number	Manganese Compounds
108-39-4	m-Cresol
No applicable CAS number	Mercury Compounds
67-56-1	Methanol
90-94-8	Methanone, bis[4-(dimethylamino)phenyl]- ($C_{17}H_{20}N_2O$)
72-43-5	Methoxychlor (Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-)
74-83-9	Methyl bromide (Bromomethane)
74-87-3	Methyl chloride (Chloromethane)
71-55-6	Methyl chloroform (1,1,1-Trichloroethane)
78-93-3	Methyl ethyl ketone (2-Butanone)
60-34-4	Methyl hydrazine
74-88-4	Methyl iodide (Iodomethane)
108-10-1	Methyl isobutyl ketone (Hexone)- 2-Pentanone, 4-methyl-
624-83-9	Methyl isocyanate
80-62-6	Methyl methacrylate (2-Propenoic acid, 2-methyl-, methyl ester)
1634-04-4	Methyl tert butyl ether (Propane, 2-methoxy-2-methyl-)
75-09-2	Methylene chloride (Dichloromethane)
101-68-8	Methylene diphenyl diisocyanate (MDI); (Benzene, 1,1'-methylenebis[4-isocyanato-)
569-64-2	Methylium, [4-(dimethylamino)phenyl]bis[4-(ethylamino)-3-methylphenyl]-, acetate
108-38-3	m-Xylenes
68953-84-4 68478-45-5	N,N'-mixed phenyl and tolyl derivatives of 1,4-benzenediamine
121-69-7	N,N-Dimethylaniline (dimethyl-benzenamine)
91-20-3	Naphthalene

Chemical Abstracts Service Number (CAS)	Substance Name
64741-47-5	Natural gas condensates (C_5–C_{15} hydrocarbons)
2426-08-6	n-Butyl glycidyl ether ($C_7H_{14}O_2$)
No applicable CAS number	Nickel Compounds
98-95-3	Nitrobenzene
62-75-9	N-Nitrosodimethylamine
59-89-2	N-Nitrosomorpholine
684-93-5	N-Nitroso-N-methylurea
No applicable CAS number	Nonylphenol and its ethoxylates
90-04-0	o-Anisidine
95-48-7	o-Cresol
95-53-4	o-Toluidine
7328-97-4	Oxirane, tetrakis(phenyleneoxymethylene) derivative ($C_{38}H_{38}O_8$)
95-47-6	o-Xylenes
56-38-2	Parathion
106-44-5	p-Cresol
608-93-5	Pentachlorobenzene, which has the molecular formula C_6HCl_5
82-68-8	Pentachloronitrobenzene (Quintobenzene)
87-86-5	Pentachlorophenol
No applicable CAS number	Perfluorocarboxylic acids that have the molecular formula $C_nF_{2n+1}CO_2H$ in which $8 \leq n \leq 20$ and their salts
40088-47-9 32534-81-9 36483-60-0 68928-80-3 32536-52-0 63936-56-1 1163-19-5	Perfluorooctane sulfonate and its salts
40088-47-9 32534-81-9 36483-60-0 68928-80-3 32536-52-0 63936-56-1 1163-19-5	Perfluorooctane sulfonate and its salts
335-67-1	Perfluorooctanoic acid ($C_7F_{15}CO_2H$) and salts
108-95-2	Phenol
17540-75-9	Phenol, 2,6-bis(1,1-dimethylethyl)-4-(1-methylpropyl)-, which has the molecular formula $C_{18}H_{30}O$
3380-14-1	Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- ($C_{12}H_7Cl_3O_2$)
75-44-5	Phosgene

Chemical Abstracts Service Number (CAS)	Substance Name
7803-51-2	Phosphine
7723-14-0	Phosphorus
85-44-9	Phthalic anhydride
12656-85-8	Pigment Red 104
1344-37-2	Pigment Yellow 34
No applicable CAS number	Polybrominated Biphenyls that have the molecular formula $C_{12}H_{(10-n)}Br_n$ in which "n" is greater than 2
No applicable CAS number	Polybrominated diphenyl ethers ($C_{12}H_{(10-n)}Br_nO$, $7 \leq n \leq 10$)
No applicable CAS number	Polybrominated diphenyl ethers that have the molecular formula C12H(10-n)BrnO in which $4 \leq n \leq 6$
1336-36-3	Polychlorinated biphenyls (Aroclors)- (1,1'-Biphenyl, chloro derivs.)
No applicable CAS number	Polychlorinated dibenzofurans that have the molecular formula $C_{12}H_{(8-n)}Cl_nO$ in which "n" is greater than 2
No applicable CAS number	Polychlorinated dibenzo-para-dioxins that have the molecular formula $C_{12}H_{(8-n)}Cl_nO_2$in which "n" is greater than 2
No applicable CAS number	Polychlorinated naphthalenes, which have the molecular formula $C_{10}H_{8-n}Cl_n$ in which "n" is greater than 1
No applicable CAS number	Polychlorinated Terphenyls that have a molecular formula $C_{18}H_{(14-n)}Cl_n$ in which "n" is greater than 2
No applicable CAS number	Polycyclic Organic Matter, includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 ºC.
106-50-3	p-Phenylenediamine
123-38-6	Propionaldehyde
114-26-1	Propoxur (Baygon)
78-87-5	Propylene dichloride (1,2-Dichloropropane)
75-56-9	Propylene oxide
106-42-3	p-Xylenes
91-22-5	Quinoline
106-51-4	Quinone
No applicable CAS number	Radionuclides (including radon), a type of atom which spontaneously undergoes radioactive decay.
68412-48-6	Reaction products of 2-propanone with diphenylamine (PREPOD)
No applicable CAS number	Refractory ceramic fibre
No applicable CAS number	Selenium Compounds
100-42-5	Styrene (Benzene, ethenyl-)
96-09-3	Styrene oxide (Oxirane, phenyl-)
1461-22-9	Tetrabutyltins ($(C_4H_9)_4Sn$)
127-18-4	Tetrachloroethylene
12408-10-5 84713-12-2	Tetrachlorobenzenes, which have the molecular formula $C_6H_2Cl_4$

Chemical Abstracts Service Number (CAS)	Substance Name
634-90-2 634-66-2 95-94-3	
127-18-4	Tetrachloroethylene (Perchloroethylene)
62-56-6	Thiourea (CH_4N_2S)
7550-45-0	Titanium tetrachloride
108-88-3	Toluene (methyl benzene)
8001-35-2	Toxaphene (chlorinated camphene)
81741-28-8	Tributyltetradecylphosphonium chloride ($C_{26}H_{56}P•Cl$)
No applicable CAS number	Tributyltins, which contain the grouping $(C_4H_9)_3Sn$
79-01-6	Trichloroethylene
121-44-8	Triethylamine
1582-09-8	Trifluralin (Benzenamine, 2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl)-)
1314-62-1	Vanadium pentoxide (V_2O_5)
108-05-4	Vinyl acetate
593-60-2	Vinyl bromide
75-01-4	Vinyl chloride
75014	Vinyl Chloride
75-35-4	Vinylidene chloride (1,1-Dichloroethylene)
1330-20-7	Xylenes (isomers and mixture)

NOTE: For all substances listed above which contain the word "compounds" after the name of a chemical (i.e., antimony, arsenic, etc.), and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

metrovancouver

Proposed Amendments to Air Quality Management Fees Bylaw

Engagement Summary, June to August, 2025

Acknowledgements
Thank you to everyone who provided input on proposed amendments to *Metro Vancouver Regional District's Air Quality Management Fees Regulation Bylaw No. 1330, 2021 (Bylaw 1330)*. Metro Vancouver embraces collaboration and innovation to provide sustainable regional services, contributing to a livable and resilient region and a healthy natural environment for current and future generations. Metro Vancouver charges regulatory fees on authorized air emissions to recover regulatory program costs and encourage emission reductions. Potential amendments to this bylaw aim to provide clarity to permittees, balance cost recovery and environmental protection, consider affordability, and align with federal and provincial legislation. Potential amendments are being refined based on input from the engagement, research, alignment with leading jurisdictions, and consideration of current economic conditions. Feedback will help shape an effective and practical bylaw, helping to identify feasible solutions and reasonable regulatory fees.

About Metro Vancouver
Metro Vancouver is a diverse organization that plans for and delivers regional utility services, including water, sewers and wastewater treatment, and solid waste management. It also regulates air quality, plans for urban growth, manages a regional parks system, provides affordable housing, and serves as a regional federation. The organization is a federation of 21 municipalities, one electoral area, and one treaty First Nation located in the region of the same name. The organization is governed by a Board of Directors of elected officials from each member jurisdiction.

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January 2026

This engagement report provides a summary of the engagement program that took place between June 2025 and August 2025 to hear from interest holders including those likely to comment, be impacted, or have a role in implementation. This included regulated businesses, other governments, First Nations, member jurisdictions, health authorities, and residents that have indicated an interest in the management of air quality. The input provided valuable insights that staff have used to develop recommendations for decision makers.

About the Proposed Amendments to Air Quality Management Fees

Metro Vancouver charges regulatory fees for authorized air emissions to recover regulatory program costs and encourage emissions reduction. Bylaw 1330 establishes these fees to support Metro Vancouver in delivering the service of regional air quality management and regulation.

Potential amendments to this bylaw aim to provide clarity to permittees, balance cost recovery and environmental protection, consider affordability, and align with federal and provincial legislation.

The four main proposed amendments were intended to:

- Clarify that when an air contaminant falls into multiple categories, the highest applicable emission fee rate will apply to reflect the most significant potential impacts of emissions
- Clarify that if there is a permit limit for odorous air contaminants, fees are charged based on that limit (otherwise they would be based on measurements) and reduce fee rates to achieve consistent and fair cost recovery with predictable fees
- Reduce maximum fees for applications for authorization and apply interest on overdue payments
- Update definitions

Proposed amendments aimed to remove ambiguity in implementation and allow revenue to grow steadily towards cost recovery. Taking all bylaw amendments into account, proposed fees calculated for individual permits would continue to promote continuous improvement through overall year-over-year fee increases, and would continue to be scaled in accordance with the amount and degree of potential impact of the air contaminants discharged.

To date, Metro Vancouver taxpayers have been funding the difference between the cost of delivering air quality services and fees charged for emissions. The MVRD Board has directed staff to move closer to full cost recovery for Metro Vancouver's air quality regulatory function.

Executive Summary

Staff delivered a two-month engagement program from June 5 to August 1, 2025 to seek feedback on proposed changes to Metro Vancouver's air quality permit and regulatory fees. Communications supporting engagement highlighted the guiding principles of air quality management fees to incentivize a reduction in air emissions, recover regulatory program costs, and move closer to a 'discharger pays' cost recovery model. There are approximately 150 facilities in the region with a valid Metro Vancouver air quality permit. Of these, seven facilities have permits that include odorous air contaminants (refineries, organic waste management facilities, and feed manufacturers). Staff engaged permit holders, member jurisdictions, and agencies (such as health authorities), as well as residents and community representatives who have indicated an interest in air quality management.

Participants shared a range of perspectives. Staff have grouped feedback into apparent themes including consistent scaling of fees to impacts of emissions, cost transparency, efficiency, predictability of fees, competitiveness and benchmarking, unintended consequences, incentives to reduce emissions, complexity and

clarity (especially surrounding measurement of odorous air contaminants), and balancing bylaw outcomes with other regional goals.

Staff will consider feedback and present recommended amendments, together with a summary of input and how it was considered, to the MVRD Board in late 2025. If adopted, the bylaw amendments would come into effect as soon as possible.

About the Engagement Program

Metro Vancouver conducted engagement to inform and gather feedback on potential changes to air quality management fees set by an amended bylaw. The engagement outlined the proposed amendments and sought feedback to shape an effective and practical bylaw and identify reasonable regulatory fees. A web resource provided information and highlighted opportunities for input. An invitation to participate was distributed via direct correspondence, industry channels, and municipal networks. Webinars, a feedback form, presentations, and meetings invited feedback from the regulated community, other governments (including health authorities), and the public. To better understand distinct perspectives — such as holders of more complex permits — focused meetings, phone calls, and correspondence aimed to hear directly from these audiences.

Engagement focused on perceived fairness, anticipated impacts, clarity, and checking alignment or overlap with other authorities.

Metro Vancouver makes decisions that impact over three million residents in the region. Metro Vancouver engages municipalities, businesses, and the public whenever we are working on a new program, policy, or project. By participating in our engagement opportunities, respondents can help us make better decisions on projects or plans that affect them and their neighbours. Input can maximize the benefits of a project, minimize the impacts, and provide new ideas or initiatives.

Engagement comments, correspondence, survey responses, and meeting notes were documented, analyzed, and used to inform the refined bylaw amendment proposals to be considered by the MVRD Board.

The table below provides a summary of communication and engagement activities and intended audiences.

Activity	Audience	Timing	Medium
Invitation to complete feedback form, attend a webinar or meet directly with staff, and provide feedback	Regulated community, including: • Permitted facilities • Industry representatives • Current permit applicants • Subset of facilities that are permitted to emit odorous air contaminants Member jurisdictions Interested public, including • Individuals with an interest in the odour and air quality management program	June – August 2025	Project and related Metro Vancouver webpages, emails, outgoing air quality permit invoices, SmellVan app webpage

Activity	Audience	Timing	Medium
	• Individuals exploring how to file an air quality or odour complaint during the engagement • Individuals who have expressed interest in previous engagement		
Presentations to member jurisdictions and relevant committees	• Lower Fraser Valley Air Quality Coordinating Committee • Metro Vancouver Regional Engineers Advisory Committee (REAC) • City of Richmond Advisory Committee on the Environment	June – July 2025	Virtual and In-Person
Invitation to engage First Nations	First Nations: • q̓i̓c̓əy̓ (Katzie First Nation) • q̓ʷɑ:ńƛ̓əń (Kwantlen First Nation) • kʷikʷəƛ̓əm (Kwikwetlem First Nation) • máthxwi (Matsqui First Nation) • xʷməθkʷəy̓əm (Musqueam Indian Band) • Semiahmoo First Nation • Sḵwx̱wú7mesh Úxwumixw (Squamish Nation) • scəẇaθən məsteyəxʷ (Tsawwassen First Nation) • səlilwətaɬ (Tsleil-Waututh Nation)	June 2025	Email
Invitation to engage provincial, federal, and other government agencies such as health authorities	Government agencies, including • BC Ministry of Environment and Parks • BC Ministry of Jobs, Economic Development and Innovation • BC Ministry of Agriculture • Vancouver Coastal Health • Fraser Health • Environment and Climate Change Canada • Health Canada • Vancouver Fraser Port Authority	June – August 2025	Email, direct meetings

Activity	Audience	Timing	Medium
Focused discussions to explore overall or subset areas of the proposed amendments	Interest holders including those likely to comment, be impacted, or have a role in implementation	June-August 2025	Individual and small group discussions (in person, virtual, and by phone)

Engagement Promotion

The engagement was promoted on the Metro Vancouver website, direct email, invoices to permit holders, and industry networks. Industry associations assisted in distributing information directly to their members. External websites, such as the SmellVan app website, promoted the engagement to their visitors.

Website

During this engagement, there were 400 project webpage views and visits from 215 active users.

E-mails

The engagement was promoted in emails to Metro Vancouver municipal networks and contacts subscribed to receive communication about public engagement on air quality regulations, plans, and programs; odour management; and air quality management fees, including permit holders and permit applicants.

Engagement Participation

Webinars

Two interactive public webinars were held on June 25 and July 9, 2025, providing participants an opportunity to learn about the potential amendments, ask questions, and provide feedback to project staff. Registrants included current air quality permit holders; businesses applying for an air quality permit; public health authority; provincial government; port authority; municipal governments; First Nations; consultants representing the regulated community; non-government environmental stewardship organizations; and public resident participants. June 25's webinar had 30 registrants and July 9's webinar had 27 registrants.

Focused Discussions (Individual and Small Group)

Staff engaged individuals and small groups in phone, virtual, and in-person discussions about the proposed amendments, answering questions and seeking feedback about subset areas of the proposed amendments (such as odorous air contaminants) and the impacts of overall proposals.

Presentations to Member Jurisdictions and Relevant Committees

Metro Vancouver staff attended three municipal environment advisory committees to present and hear feedback on the proposed amendments to Metro Vancouver's air quality management fees regulation bylaw.

Feedback Form Responses

The feedback form consisted of eight questions as well as the opportunity to provide comments and suggestions. Staff received 82 feedback forms. Submissions were received from businesses subject to air quality regulatory fees; health authority, government agencies, and member jurisdictions; and other members of the public.

- Most respondents (67%) affirmed that the proposed bylaw amendments align with Metro Vancouver's responsibility for managing air quality in the region (23% of respondents were unsure).

- Most respondents (58%) agreed with applying the highest applicable emission fee rate when an air contaminant falls into multiple categories to reflect the air contaminant's effects on health and the environment.
- Regarding reducing emission fee rates for specified odorous air contaminants, responses were mixed. Some respondents noted this will reduce the incentive for emissions reductions. Others noted ongoing concerns of the bylaw's impacts on local industry.
- Regarding limiting the application fee for permits, approvals, and amendments to a $450,000 maximum, 39% of respondents noted negative impacts vs. 27% of respondents noting this as an improvement. Respondent comments related to the fee cap expressed concern about how the proposed maximum fee amount would relate to Metro Vancouver's cost recovery or how a fee cap would benefit the largest emitters.
- Most respondents (66%) agreed that charging interest on overdue payments would be an improvement.

Open comments included: costs for authorized industry emissions, impacts of air emissions to the environment, public health and well-being, and a shared desire to reduce emissions while considering costs and benefits to society, taxpayers, business, and local economies. Respondents noted the importance of using scientific data, clear and transparent calculations, and strong enforcement and compliance.

Incoming Correspondence

Staff received seven letters containing feedback on the proposed amendments, including a letter from the Province of British Columbia providing recommendations on the overall Bylaw 1330. The letters are attached to this engagement summary.

This engagement summary includes feedback from correspondence received between June 2025 and August 2025. Additional correspondence received after August 2025 has also been appended to this engagement summary.

Proposed Amendments to Air Quality Management Fees Bylaw

Engagement Summary (June 5 – August 1, 2025)

2 public webinars
57 registrants

82 feedback form responses

400 webpage views
215 active users

Emails:

9 to First Nations

4 e-blasts
6,912+ e-mails sent directly to interested recipients

3 presentations to municipal environmental advisory committees

4 meetings with government agencies

5 meetings with regulated community members and industry associations

What We Heard

Issue/ Theme	Feedback
Consistent scaling of fees to impacts of emissions	There was general agreement with Metro Vancouver's stated cost recovery and discharger-pay principles, agreeing that emission fee rates should be scaled by an air contaminant's effects on health and the environment. Respondents noted that odours have impact on local communities and the well-being of people nearby; causing residents to stay inside, close windows, disrupt work, or use air purifiers. Many referenced examples of neighbourhoods strongly impacted by odours. Some questioned whether proposed odorous air contaminant fees are based on odour nuisance, human health, or at what blend if considering both. Respondents expressed concern about inconsistent scaling of fees with health impacts, pointing to the proposed fee for emitting a recognized hazardous air pollutant being ten to 1,000 times more for its odorous qualities than for its hazardous qualities. Some respondents questioned the data-supported link between health impacts and odour, and how proposed odorous air contaminant fees could be consistently scaled with health impacts like other air contaminants. Regarding limiting the application fee for permits, approvals, and amendments to a maximum amount of $450,000, some expressed concern that any fee cap would benefit the largest emitters and reduce their incentive to invest in emissions reduction technology or measures. Some respondents suggested factoring in time duration of emissions and its relation to health data regarding detrimental effects of short vs. long-term exposure. Some permit holders expressed concern that their annual permit fees exceed their estimation of regulatory costs and suggest that the potential requirement for measurements of uncommonly measured substances, such as odorous air contaminants, has the potential to impose significant costs on both the regulated industry (sampling and analysis) and the regulator (specification of methods, verification of results).
Cost transparency	Respondents noted that the regulated community and taxpayers expect a clear understanding of Metro Vancouver's regulatory costs and the proposed distribution of costs being recovered, including how this would be transparently reported and re-evaluated over time. Further, the sources of the regulatory costs, the practicality and reliability of measuring and tracking costs, and the proposed cost share calculations should be clear to the regulated community, bylaw approval decision makers, and the public. Some were unclear whether legal costs are, or should be, included in figures Metro Vancouver is seeking to recover through fee revenues. Some emphasized that cost recovery should not result in fee increases over time, and that the regulatory costs should be decreased through program efficiencies. Further suggestions included: demonstrated emissions reductions should maintain a transparent link to fee reductions; enforcement costs borne by Metro Vancouver

Issue/ Theme	Feedback
	need to be tracked, calculated, and distributed across the entire regulated community; and that regulatory program cost controls must be prioritized, and fee escalation limited. Respondents suggested more clarity of the numbers tied to proposed fee calculations and that proposed fee increases require more explanation. Some questioned the correlation between health impact estimates and fees collected by Metro Vancouver, especially for odour and hazardous air pollutants. Some expressed concern about the originally proposed $450,000 amount as a fee cap, questioning the fairness of others subsidizing the regulatory costs caused by the region's largest emitters. The Province noted that Metro Vancouver staff should not be required to make statutory discretionary decisions in determining fees. Some expressed concern that term limits for permits were unclearly established on a case-by-case basis, creating uncertainty and unfairness for large facilities.
Efficiency	Respondents suggested that the costs to administer a cost recovery mechanism maintain reasonable year-to-year alignment with the costs it seeks to recover. For example, the costs incurred to calculate fees and administer a permit should not exceed the fees collected from permit holders or Metro Vancouver's stated annual cost recovery goals for the program. A respondent shared that accurate sampling and analysis of substances is onerous and expensive. Respondents noted that charging fees does not guarantee compliance with regulations or reduction of air contaminants. Further, making it more expensive to do business does not directly equate to protecting health and the global environment if trade still occurs to support our local, regional, and national economic prosperity, and if emission-generating industries relocate due to regulatory pressure unique to the Metro Vancouver region. Some respondents expressed doubt that monetary penalties efficiently and effectively change behaviour rather than adding to costs.
Predictability of fees	Respondents shared that a clear and predictable regulatory environment is important for businesses to operate and calculate year-to-year costs. Fee increases must be measured and phased where possible to allow regulated entities time to adapt. Respondents asked Metro Vancouver to show how fee rates are projected to increase over time, starting from 2020 (before the current bylaw was enacted) through to the last year where fee rate increases are specified. And to include newly added air contaminants for which fees were not previously charged.

Issue/ Theme	Feedback
	Regulated industries expressed concern with charging fees based on measured odours. Measurements can vary widely, which makes fees volatile, affects stability of business, raises questions about accuracy, and risks disputes. The Province suggested ensuring that broadly accepted measurement methods satisfy Metro Vancouver's requirements for accuracy and detection limit. Further, these should be specified for any substances required to be monitored. Some suggested that emission fees should no longer be assessed for odorous air contaminants that are not detectable in measurements. Respondents shared that when fees are complex and not easily understood, they are not adequately predictable. It can be difficult to estimate future permit fees as these can be dependent on monitoring requirements included in a final permit that are not known at the time of permit application.
Competitiveness / benchmarking	Respondents suggested that costs to remain compliant in Metro Vancouver's air quality jurisdiction remain consistent with other Canadian jurisdictions and across North America. Further, this would maintain regulatory and economic framework competitiveness. An amended bylaw could be informed by an analysis that benchmarks fees against similar jurisdictions. Permit holders operating in multiple jurisdictions responded that Metro Vancouver fees are among the highest they pay in North America, stating their past overall fees steadily increased and are expected to increase further, and highlighted that maintaining globally competitive air permitting costs and processes supports the region being more attractive to businesses seeking to locate or expand manufacturing operations in key industrial and economic sectors. Respondents expressed concern that the initially proposed $450,000 cap on application fees is significantly higher than fees charged by other jurisdictions. There were comments that Metro Vancouver is seen as a high-cost jurisdiction facing competitive pressure from less sustainable imports. Increasing regulatory pressure and costs risk further displacement of economic investment, local production, and jobs. For some permit holders, the initial proposed maximum fee ($450,000) would unfairly impact competitiveness between local manufacturing businesses, whereby those that have invested in emissions reductions would unfairly subsidize competitors that fail to make the same efforts. Local regulated businesses are concerned about higher regulatory fees that make them less competitive than those exempt from Metro Vancouver's bylaws. Regarding the proposal to charge interest on overdue invoices after 30 days, some respondents stated 30 days was short, and 45 days or 90 days was common practice. Others expressed concern that interest rates are too low to motivate timely payment. Some stated the interest rate was too high.

Issue/ Theme	Feedback
Unintended consequences	Respondents noted that increased regulatory and permitting costs can be passed down the supply chain, impacting affordability. For example, the pricing and viability of locally produced food or cement sectors could displace Metro Vancouver sources with imports not subject to the same regulatory framework. Metro Vancouver and its member jurisdictions are direct customers of some permit holders, therefore there was concern that increased fees could translate into some higher costs to customers. Respondents suggest that the costs of the regulatory program should not become a barrier to new industries or an incentive for existing industry to relocate. Further, some sectors are sensitive to compliance costs and international market access, such as manufacturing, clean technology, and agrifood manufacturing. Respondents noted that the variability of measurements and the application of complex calculations could result in disputes and legal or other costs. Health authority staff were concerned that fewer permit applications would be reviewed by health authorities because of a fee reduction without a reduction in impact. Since a permit fee threshold is one of the criteria that triggers health authority review and dispersion modelling, reduced fee rates might reduce the number of permit applications that cross the permit fee threshold for undergoing a review by health authorities.
Incentives to reduce emissions	Some respondents expressed doubt that monetary penalties will adequately reduce emissions levels, especially with reduced fee rates and a cap applied to maximum fees. Some emphasized that an amended bylaw must maintain consistent pressure on emitters to reduce their air quality impacts. A suggestion made was to consider fee discount incentives if air contaminants are demonstrably reduced below emission limits, such as 80%, 60%, 40%, 30%, and 20% of limits.
Complexity / clarity	Respondents noted that businesses should be able to understand and predict new and incremental cost increases. Existing businesses need to be able to predict their costs, while potential new businesses need to understand approximate application and permitting costs. Respondents suggested considering hidden costs for permittees. For example, businesses may incur large expenses to interpret the bylaw and anticipate future fees. This often involves engaging costly consultants and legal counsel to navigate the complexities, diverting resources from core business activities. Feedback included a suggestion to simplify and clarify step-by-step calculations wherever possible. Specify a clear method to determine whether fees will be based on authorized or measured emissions and state which fee methodology prevails in each circumstance, eliminating any statutory decisions from the bylaw.

Issue/ Theme	Feedback
	Respondents suggested definitions for each of the substance categories be transparent and unambiguous. Further, referencing lists of compounds maintained by other jurisdictions should be applied with caution, particularly in cases where the list was never intended to be a list of hazardous air pollutants. A suggestion is to adopt an amended definition of odorous air contaminants that can be used to unambiguously determine whether a substance is a member of this class or not. There was a suggestion to clearly state that fees for each air contaminant will only be charged once at one fee rate per emissions source. There was a suggestion to establish clear rules on which fee rates apply to air contaminants that belong to multiple categories. Respondents suggested that fee structure review timelines clearly outline when Metro Vancouver intends to reevaluate and adjust the bylaw to account for new authorized emissions and updated cost recovery distribution across the regulated community. Further, permit time lengths should be more clear and consistent.
Measurement of odorous air contaminants	While not part of the proposed amendments seeking feedback, some respondents (including the Province) suggested that Metro Vancouver consider removing odorous air contaminants (Schedule B in MVRD Bylaw No. 1330, 2021) from the amended bylaw due to the complexity and potential costs associated, and the modest cost recovery forecasted for odorous air contaminants. Alternatively, fee rates for odorous air contaminants should be reduced to align with updated cost recovery objectives and an amended definition of odorous air contaminants must unambiguously state whether a substance is a member of this class or not. Further, the method to determine whether fees will be based on authorized or measured emissions must be clear. Some suggested removing all reference to odorous air contaminants, odour detection thresholds and odour units due to variability of measurements. A respondent shared that odour units have been found to be too subjective and inaccurate for use as a permit compliance measurement or fee mechanism by the Environmental Appeal Board, yet they are found in Metro Vancouver regulations that are outside of the Environmental Appeal Board's jurisdiction. A respondent shared that odour detection thresholds are derived through various forms of sniff tests and can vary by several orders of magnitude depending on the reference they are found in. There is no single odour detection threshold value for any substance. There is a suggestion to devise a method of apportioning reasonable and transparent administrative costs related to odorous emissions between the respective permit holders that uses accepted mainstream methods to measure standard air emission parameters such as Total Reduced Sulphur (TRS) and/or Total Volatile Organic Compounds (VOCs). Since nearly all odorous air contaminants are either Total Reduced Sulphur (TRS) or VOCs, cost recovery for the regulation of

Issue/ Theme	Feedback
	odorous air contaminants could be based on fees for these substances, creating a simpler, lower cost fees system. A respondent shared that detection limits are typically in line with the lowest concentration at which the human nose can first detect a smell. If measured emissions are below detection limits, they should not be charged a fee. Some expressed concern about Metro Vancouver referencing older studies (Nagata, 2003 based on data from the 1970s and 1980s; shifting away from European standard). In a letter commenting on the existing bylaw, the Province suggested that Metro Vancouver consider removing odorous air contaminants (Schedule B) from the amended bylaw due to the complexity and potential costs associated, and the modest cost recovery forecasted for odorous air contaminants.
Balancing other regional goals with cost and benefit analysis of the bylaw	Respondents suggested enforcement costs and resource requirements associated with all elements of the bylaw maintain a reasonable balance with the achievement of emissions reductions, with careful consideration of impacts on other regional goals such as economic prosperity and affordability. Respondents suggested supporting hard-to-abate industries to reduce emissions through other ways (beyond fees) to support local business competitiveness and economic prosperity. Further suggestions included grants or cost-sharing arrangements to pilot better technologies could support emissions reductions of key industries, focusing on improving local operations while mitigating pricing impacts to local end users. This is most important where unique Metro Vancouver fees are likely to relocate emissions (and key businesses) rather than reduce the emissions globally, and where vital supply chains are anticipated to move out of the region to escape our unique regulatory framework. Respondents repeatedly emphasized the direct impacts from odorous air contaminants on wellbeing and quality of life of residents. This has implications for Metro Vancouver's vision for livability and clean air as stated in the Board Strategic Plan updated in 2022, as well as the goals for protecting the environment in Metro 2050.
Exemptions / scope of bylaw	Respondents suggested that Metro Vancouver consider and clearly state any bylaw exemptions, such as for farming activities related to agricultural crops or products. Some expressed concern about the fairness of facilities owned by Metro Vancouver or member municipalities operating under solid and liquid waste management plans being regulated by the Province through operational certificates, not subject to the level of fees regulated by Metro Vancouver through this bylaw.
Processing speed	Respondents suggested that speeding up permit approval processing time is important to minimize business impacts and costs.

First Nations Engagement

First Nations in the region were invited to provide feedback on these proposed bylaw amendments. One First Nation joined a webinar and three submitted a response. No concerns were expressed by any First Nations.

How Feedback Will Be Used

Feedback gathered through this engagement process will help to refine proposed amendments to shape an effective, clear, and practical bylaw to encourage emission reductions and recover regulatory program costs. Insights gathered through engagement will be considered alongside best practices research, insights from previous experience in enforcement of Bylaw 1330, and alignment with federal and provincial legislation. Staff will present refined proposed amendments, together with a summary of input and how it was considered, to the MVRD Board in late 2025.

Appendices

Appendix 1: Correspondence between Metro Vancouver and the Province of British Columbia
Appendix 2: Engagement Correspondence Received June to August 2025
Appendix 3: Engagement Correspondence Received after August 2025

Appendix 1:
Correspondence between Metro Vancouver and the Province of British Columbia

Province of British Columbia

- Ministry of Jobs and Economic Growth, Ministry of Environment and Parks, and Ministry of Agriculture and Food - July 29, 2025
- Ministry of Jobs and Economic Growth, Ministry of Environment and Parks, and Ministry of Agriculture and Food - December 1, 2025

Metro Vancouver

- Response to July 29, 2025 Letter Regarding Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021 - August 27, 2025
- Update on Proposed Amendments to Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021 - December 4, 2025

Letters have been appended in chronological order.

Reference: JEG 168873 / ENV 416571 / AF 242147

July 29, 2025

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Government of British Columbia: Ministries of Jobs and Economic Growth; Environment and Parks; and Agriculture and Food

Comments on Proposed Amendments to Metro Vancouver Air Quality Management Fees Bylaw No. 1330, 2021

Introduction

At its regular May 23, 2025, meeting the Metro Vancouver Regional District Board (Metro Vancouver) of Directors passed a resolution directing staff to engage with interest holders on proposed amendments related to fees in Metro Vancouver *Bylaw No. 1330, 2021* (the *Bylaw)*.

In line with this directive, Metro Vancouver has engaged the Government of B.C. on a discussion paper: "*Proposed Amendments to Air Quality Management Fees: Initiating Engagement*." The following submission to Metro Vancouver represents insights and perspectives from the B.C. Ministries of Jobs and Economic Growth, Environment and Parks, and Agriculture and Food.

Metro Vancouver Air Permitting

In B.C., authority to control and prevent the discharge of air contaminants has been delegated to Metro Vancouver under the B.C. *Environmental Management Act* and previous enactments. Efforts to enhance regulatory clarity and B.C.'s economic competitiveness acknowledge and work within this framework. Alignment between provincial environmental and business objectives, and Metro Vancouver's air quality bylaws and related processes, is essential to maintaining B.C.'s competitiveness relative to other Canadian jurisdictions and across North America.

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The **B.C. Ministry of Jobs and Economic Growth** recognizes the evolving global economic landscape, including the resurgence of protectionist measures such as U.S. tariffs and shifting trade dynamics. It is, therefore, critical for B.C. and Canada to foster a resilient and competitive business environment. A strong, coordinated regulatory and economic framework across jurisdictions enhances investor confidence and supports domestic industries in adapting to international pressures.

In this context, Metro Vancouver's air permitting regime plays a pivotal role. By aligning local regulatory practices with broader provincial and national economic objectives, B.C. can ensure that its businesses remain competitive and attractive to Canadian and global investment. This alignment is particularly critical for sectors that are sensitive to compliance costs and international market access, such as manufacturing, clean technology and agrifood manufacturing, among others.

At the local government level, a transparent, competitive and predictable air permitting regulatory framework has a direct and significant impact on compliance costs for businesses. Most jurisdictions in advanced economies, including B.C. and Metro Vancouver, require businesses to obtain air permits for various industrial processes that emit air pollutants. In Metro Vancouver's case these permits come with application fees, annual administrative fees, and emission fees based on the type and quantity of pollutants discharged.

When regulations, including environmental quality regulations, are clear, predictable and consistently applied, businesses can accurately forecast their permitting costs. This allows them to effectively budget for application fees, annual maintenance fees, and, critically, the emission fees which can depend on authorized discharge levels. Without such transparency, businesses face the uncertainty of fluctuating or unexpectedly high fees, leading to financial instability and a reluctance to invest in new projects or expand existing operations that might require new or amended discharge permits. Moreover, a predictable framework enables companies to make informed decisions about installing emission control equipment or modifying processes to reduce their pollutant output, knowing that these investments will directly translate into lower, predictable emission fees rather than an unpredictable administrative burden.

Conversely, an opaque permitting system can result in substantial hidden costs for permittees. Businesses may incur significant expenses trying to interpret vague bylaws or regulations or anticipate future fee structures. This often involves engaging costly consultants and legal counsel to navigate the complexities, diverting resources from core business activities. Furthermore, if the process for obtaining or renewing permits is unpredictable, delays can lead to operational shutdowns, lost production, and missed market opportunities—all of which represent significant financial losses.

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To achieve global competitiveness, a transparent and predictable regulatory framework is not merely beneficial; it is essential. In today's interconnected world, businesses and investors have a choice of where to locate operations and deploy capital. Jurisdictions that offer clear, consistent and stable regulatory environments stand out as attractive destinations, directly enhancing their national and global competitiveness. To be globally competitive, jurisdictions such as B.C. and Metro Vancouver must constantly benchmark their regulatory frameworks, including air permitting, against national and international best business and environmental practices. This means ensuring that regulations or bylaws effectively achieve environmental goals while recovering administrative costs proportionate to efficient program delivery.

Maintaining globally competitive air permitting costs and processes will help make the region more attractive to businesses seeking to locate or expand manufacturing operations in key industrial and economic sectors, including agrifood, among others.

Regulatory Considerations for the Agrifood Manufacturing Sector
For the B.C. agrifood sector, including manufacturers in Metro Vancouver, the importance of a clear and predictable regulatory environment is vital. Food and beverage manufacturers and companies that directly support them in their critical supply chains often operate on tight margins and are sensitive to regulatory, administrative and permitting cost requirements. These businesses are found across the entire agrifood production spectrum from food processors to agrifood exporters, many of whom rely on timely approvals and cost certainty to meet seasonal production cycles and market demands.

The **B.C. Ministry of Agriculture and Food** works to ensure that B.C.'s agrifood sector remains sustainable and is both nationally and globally competitive by advocating for regulatory approaches that are proportionate, transparent and aligned with the realities of its unique agrifood operations. This includes ensuring that regulatory approaches including compliance requirements reflect the scale and environmental impact of operations, and do not impose undue burdens and fees on small and medium-sized enterprises. Ultimately, increased regulatory and permitting costs can be passed down the supply chain, potentially impacting the affordability of food for households that rely on accessible and reasonably priced B.C. agrifood products.

A well-calibrated permitting system can support innovation and environmental stewardship in the agrifood manufacturing sector by encouraging investment in clean technologies and process improvements. When businesses are confident that such investments will lead to predictable and fair regulatory outcomes and permit fees, they are more likely to adopt sustainable practices that align with local and provincial climate and environmental goals.

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A balanced and coordinated regulatory framework—one that supports both environmental protection and economic viability—is essential to the long-term success of B.C.'s agrifood sector across the entire supply chain in an increasingly competitive global marketplace. These principles are equally relevant across all of B.C.'s economic sectors and should guide the development and refinement of Metro Vancouver's air permitting framework.

Building on this perspective, the **B.C. Ministry of Environment and Parks** offers the following technical observations and recommendations regarding specific provisions of the *Bylaw*.

1. **Benchmarking fees relative to other jurisdictions**

In common with Metro Vancouver, many jurisdictions charge fees for regulatory services such as reviewing applications for permits and annual fees for active permits. Usually, the aim is for fees to recover all or portion of the costs of the regulatory program, under the view that polluters should pay the costs of the programs needed to manage pollution (i.e., polluter pays). While endorsing the principle of polluter pays, caution is needed to ensure that the costs of the regulatory program do not increase to the point that fees become a barrier to new industries or an incentive for existing industry to relocate.

The Province recommends that the Board's decision on an amended *Bylaw* should be informed by an analysis that benchmarks MVRD fees against comparable regulatory costs in a range of similar jurisdictions.

While this benchmarking will provide useful context, it is important to note that different jurisdictions may have different goals with respect to cost recovery; and factors such as population and complexity of emissions sources, and the impact on human health and the environment, will also affect the cost of the overall regulatory framework.

2. **Measured increases in fee rates**

While fee rates are likely to increase over time reflecting both the cost of regulatory programs and the public's increasing expectations for excellent air quality, it is also important that fee increases are measured and phased where possible to allow regulated entities time to adapt.

The Province recommends that the Board's decision on an amended *Bylaw* should be informed by an analysis that shows how fee rates are projected to increase from 2020 (before the current bylaw was enacted) through to the last year where fee rate increases are specified in the *Bylaw*. Fee rates for newly added pollutants that were not charged before 2021 should also be highlighted in this analysis.

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3. Transparency and predictability of fees

Existing businesses and potential new entrants will want to be able to understand and predict new and incremental cost increases. Existing businesses need to be able to predict their costs, while potential new businesses need to understand approximate application and permitting costs. Informed permittees should be able to calculate fees based on the scheduled fee rates in the *Bylaw* and their authorized emissions and come to the same answer as Metro Vancouver staff. At the same time, staff should not be required to make statutory decisions in determining fees.

The Province recommends that *Bylaw* amendments carefully consider eliminating sources of ambiguity and interpretation in the existing *Bylaw*.

Specific suggestions to address ambiguity and unclear interpretation are included in the section below.

a. Statutory decisions

Several sections of the current *Bylaw* provide options for charging fees. For instance, fees can be charged on the quantity of measured emissions or the quantity of authorized emissions. In some cases, the *Bylaw* provides a scheme to determine which methodology is used for a given case. However, in other cases such as the definition of an "authorized discharge" and Schedule B, the *Bylaw* does not provide clear instructions on which fee method prevails. Therefore, in arriving at a final fee amount, Metro Vancouver staff must exercise their discretion on which methodology to use. This exercise of discretion is not explicitly authorized by the current *Bylaw* and has the effect of decreasing predictability of fees. In addition, if this exercise of discretion is found to be a statutory decision, then fees based on that statutory decision could be appealable.

The Province suggests that amendments to the *Bylaw* should clarify which fee methodology prevails in each circumstance, eliminating any statutory decisions from the Bylaw.

b. Definition of substance categories

There is significant ambiguity and overlap between the pollutant categories defined within the fees *Bylaw*. For example, volatile organic compounds (VOC) can also be odorous air contaminants (OAC) or hazardous air pollutants (HAP). Some specific identified issues include:

- The definition of "photoreactive volatile organic compounds" encompasses "any organic compound". By referencing "any organic compound" with no reference to the volatility of the compound, this definition is far broader than most regulatory definitions. This definition has implications on the definition of hazardous air pollutants since that definition excludes VOC.

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- The definition of HAPs refers to and adopts schedule 1 of the *Canadian Environmental Protection Act* (CEPA) 1999 which is not a list of HAPs, although it does include some compounds broadly considered to be HAPs. However, the definition removes VOCs from the CEPA 1999 list, thereby eliminating some substances which are widely viewed as HAPs.

The Province suggests that definitions for each of the substance categories be carefully reviewed and amended as needed to provide transparent, unambiguous definitions. Referencing lists of compounds maintained by other jurisdictions should be applied with caution, particularly in cases where the list was never intended to be a list of hazardous air pollutants.

c. Fee rates for pollutants that belong to multiple categories

The *Bylaw* is silent on which fee rates apply if a pollutant belongs to multiple pollutant categories and does not rule out being charged twice for the same air contaminant (although this has not happened in practice).

The Province recommends that the *Bylaw* be amended to clearly state that fees for each pollutant will only be charged once at one fee rate per emissions source and to establish clear rules on which fee rates apply to pollutants that belong to multiple categories.

d. Guidance on fee calculations

With an updated *Bylaw* that removes ambiguity and the need for discretionary decision making by the regulator, it should be possible to provide guidance on how the fees are applied in practice, including detailed example calculations. Such guidance would allow industries to more accurately predict their future permit and application fees.

The Province recommends that to accompany an amended *Bylaw*, Metro Vancouver staff should develop guidance with examples of the fee calculations contained in the *Bylaw*.

4. Complex provisions around odorous air contaminants

The primary harms of air pollution relate to the health and environmental harms caused by common pollutants such as fine particulate matter, ozone and their precursor pollutants. However, odorous compounds, or odorous air contaminants (OACs) as they are called in the *Bylaw*, can drive a great deal of public concern and complaints as they are easily perceived and can cause an immediate impact on quality of life. Minimizing emissions of OACs through measures such as best available control technology, best management practices, regular maintenance and inspection, and odour complaint protocols is an important component of air quality management. Schedule B of the *Bylaw* attempts to recover some of the regulatory costs of managing OACs by adding discharge fees for emissions of OACs on top of fees for other air contaminant discharges. In a May 23, 2025, update to the Board, the target for cost recovery for OACs is shown as a range from $125,000 to $300,000.

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The Province has reviewed Schedule B of the current *Bylaw* and has identified the following concerns:

- Fee rates for OACs are ten to 1,000 times higher than fees on important health-impacting pollutants. For example, fine particulate matter, the pollutant most responsible for population health impacts in Canada and B.C., has a 2025 fee rate of $1,157/tonne, while the fee rate for hydrogen sulphide is 90 times greater. Also, facilities that have been billed for emissions of Total Reduced Sulphur compounds (TRS) will likely experience a greater than 100-fold increase in fees for those contaminants once they are billed for the individual constituents of TRS under Schedule B. Fee rates for odorous air contaminants range up to $1,000,000 per tonne.
- The definition of OACs is so general that it provides little certainty whether a given substance would be considered an OAC or not, beyond the 90+ substances that are specifically listed in Table 9 of Schedule B. With such a general definition there will be a requirement for Metro Vancouver staff to decide which compounds are odorous air contaminants on a case-by-case basis. These decisions will impact fees but will not be known ahead of time by permittees.
- Unlike for common air contaminants, proponents of projects will have little visibility to understand future permit fees as these fees can be dependent on monitoring requirements that may be included in the final permit but are not known at time of application.
- There is no certainty whether fees will be based on authorized discharges or measured concentrations as the *Bylaw* allows either but does not provide a definite method for choosing between them.
- Fees would be assessed based on undetectable concentrations of OACs according to Section 5 of Schedule B. In this section there is provision for assessing fees based on an assumed concentration of 0.25X the detection limit when a substance is measured but not detected. While assuming concentrations below a detection limit is a valid statistical procedure, it may not be a valid method on which to assess fees.
- The potential requirement for measurements of many uncommonly measured substances, either those listed in Schedule B, Table 9 or other odorous air contaminants, means that the *Bylaw* for odorous air contaminants has the potential to impose significant costs on both the regulated industry (sampling and analysis) and the regulator (specification of methods, verification of results).

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Considering the complexity and potential costs of Schedule B and the modest cost recovery planned for OACs, the Province suggests that Metro Vancouver should consider removing Schedule B from the amended *Bylaw*.

Since nearly all OACs are either TRS or VOCs, cost recovery for the regulation of OACs could be based on fees for these substances, creating a simpler, lower cost fees system. Bearing in mind that significant fee rate increases are already included in Schedule A from 2021 through 2028, the need for additional cost recovery could be evaluated once the already scheduled fee rate increases have been implemented.

If MVRD elects to keep Schedule B in the amended *Bylaw*, then the Province recommends the following changes:

1. Reduce fee rates for listed and unlisted air OACs to align with updated cost recovery objectives.
2. Adopt an amended definition of OACs that can be used to unambiguously determine whether a substance is a member of this class or not.
3. Specify a clear method to determine whether fees will be based on authorized or measured emissions.
4. Ensure that broadly accepted measurement methods meeting Metro Vancouver's requirements for accuracy and detection limit are specified for any substances that are required to be monitored.
5. Amend Section 5 so emission fees are no longer assessed for OACs that are not detectable in measurements.

Thank you for the opportunity to provide provincial perspective on amendments to this important bylaw.

Sincerely,

Fazil Mihlar
Deputy Minister
Ministry of Jobs and Economic Growth

Kevin Jardine
Deputy Minister
Ministry of Environment and Parks

Michelle Koski
Deputy Minister
Ministry of Agriculture and Food

cc: Conor Reynolds, Director, Air Quality & Climate Action Services, Metro Vancouver Regional District

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AUG 2 7 2025

File: CR-24-01-016

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VIA EMAIL: JEDI.DM@gov.bc.ca

Michelle Koski, Deputy Minister
Ministry of Agriculture and Food
PO Box 9120 Stn Prov Govt
Victoria, BC V8W 9B4
VIA EMAIL: michelle.koski@gov.bc.ca

Dear Deputy Minister Jardine, Deputy Minister Koski, and Deputy Minister Mihlar;

Response to July 29, 2025, Letter Regarding Metro Vancouver Regional District
Air Quality Management Fees Regulation Bylaw No. 1330, 2021

Thank you for your joint July 29, 2025 correspondence providing feedback on proposed amendments for the Metro Vancouver Regional District (MVRD) *Air Quality Management Fees Regulation Bylaw No. 1330, 2021* ("Bylaw 1330"). We appreciate your input on a range of critical economic and business considerations, as well as the technical aspects of the bylaw. Metro Vancouver staff have reviewed the recommendations and confirmed they are well aligned with the proposed amendments to Bylaw 1330 as outlined in the May 2025 Discussion Paper.

The current review of Bylaw 1330 reflects Metro Vancouver's ongoing commitment to continuous improvement, balancing environmental protection with economic considerations, and maintaining a regulatory framework that is effective, equitable, and responsive to evolving needs. Proposed changes to Bylaw 1330 aim to improve fairness, transparency, predictability, and ease of use, while continuing to protect regional air quality and maintaining discharger-pay and cost-recovery principles.

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Specifically, the amended Bylaw 1330 will have:

- Improved clarity on how fees apply when an air contaminant belongs to more than one category.
- Simplified key definitions to avoid overlaps and improve consistency with both federal and provincial frameworks.
- A cap on application fees so applicants have an upper bound for planning purposes.
- Substantially reduced fee rates for odorous air contaminants, as compared to the current fee schedule.
- Phased-in fee rate changes through 2030 to provide a clearer view of costs over time.

To support implementation of the amended Bylaw 1330, Metro Vancouver staff are also developing guidelines on fee calculation methodology and will work with individual permit holders to provide them with information needed for business planning and decision making.

Since June 2025, Metro Vancouver has conducted extensive engagement with permit holders, industry associations, member jurisdictions, and partner agencies, including health authorities and other governments. The feedback received through the engagement will be incorporated into the final amendments to be presented to the MVRD Board for consideration, currently targeted for November 2025.

We will continue to work collaboratively with the provincial government to ensure that the updated Bylaw 1330 supports our shared vision for this region: protecting air quality, supporting public health, recovering regulatory costs fairly, and fostering a competitive business environment.

Thank you again for your constructive input. We look forward to continued dialogue as we move toward finalizing these changes. If you have any questions, please contact Esther Bérubé, Division Manager, Air Quality Bylaw and Regulation Development by email at esther.berube@metrovancouver.org.

Yours sincerely,

Jerry W. Dobrovolny, P.Eng., MBA
Commissioner/Chief Administrative Officer

JWD/HM/mr

cc: Markus Kellerhals, Director, Core Programs Office, Ministry of Environment and Parks
Richard Sawchuk, Executive Project Director, Ministry of Jobs and Economic Growth
Heather McNell, Deputy Chief Administrative Officer, Policy and Planning, Metro Vancouver
Conor Reynolds, Director, Air Quality and Climate Action Services, Metro Vancouver
Esther Bérubé, Division Manager, Air Quality Bylaw and Regulation Development, Metro Vancouver

Encl: Correspondence dated July 29, 2025, re: "Government of British Columbia: Ministries of Jobs and Economic Growth; Environment and Parks; and Agriculture and Food - Comments on Proposed Amendments to Metro Vancouver Air Quality Management Fees Bylaw No. 1330, 2021".

Proposed Amendments to Metro Vancouver's Air Quality Management Fees Regulation Bylaw No. 1330 - Discussion Paper - May 2025

Reference: JEG 169886 / ENV 418444 / AF 286781

December 1, 2025

Jerry Dobrovolny
Commissioner/Chief Administrative Officer
Metro Vancouver Regional District (MVRD)
Metrotower III, 4515 Central Boulevard
Burnaby BC V5H 0C6
Sent via email: jerry.dobrovolny@metrovancouver.org

Government of British Columbia: Ministries of Jobs and Economic Growth; Environment and Parks; and Agriculture and Food

RE: Air Quality Management Fees Bylaw No. 1330, 2021 (Bylaw)

Further to our letter of July 29, 2025, providing input into MVRD's consultations on *Bylaw 1330, 2021*, we understand that Bylaw revisions are expected to be considered by the MVRD Air Quality and Climate Committee in January 2026. Our ministries appreciate MVRD's ongoing consultations on the Bylaw and reaffirm the following key points—which we believe are critical to achieving strong environmental protection while enhancing British Columbia's (B.C.) economic competitiveness and affordability through effective regulation.

1. Escalating Air Emissions Fees.
We support the principle of cost recovery to fund environmental programs. However, we remain concerned by the large increases proposed for MVRD discharge fee rates—ranging from approximately 27 percent to 72 percent between 2025 and 2028. These fee rate increases come at a time of global economic uncertainty, with many sectors facing inflationary pressures, supply chain disruptions, and tightening capital markets. Moreover, these proposed increases would be on top of recent MVRD increases in fee rates for key air pollutants of between 20 percent and 400 percent for key pollutants between 2020 and 2025. Current MVRD discharge fee rates range from 2 to 145 times greater than equivalent B.C. fees, depending on the pollutant. The impact of these discharge fees is that permit costs in MVRD are significantly higher than other Canadian jurisdictions. While environmental protection remains a priority, fee structures that are out of alignment with provincial and interprovincial benchmarks can have unintended consequences, including inflationary pressures in sectors such as housing and agrifood that are directly affected by this Bylaw.

We recommend pausing the proposed fee increases to ensure environmental and cost recovery objectives are met without eroding regional competitiveness or affordability.

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2. High Air Permit Application/Reapplication Fees
The permit application and permit reapplication fees—proposed to be capped at $250,000 for new permits and $125,000 for reapplications—are substantially above provincial and neighbouring jurisdictional benchmarks. While we acknowledge that this cap is a substantial reduction from the current Bylaw, these fees remain high in comparison to many jurisdictions. These fees should be structured to align with the principle of cost recovery, yet that alignment appears unclear based on the proposed caps. While B.C. provincial permits do not normally expire, MVRD has put expiry dates on most recent permits. When permits expire regularly the reapplication fees and associated costs of application such as air dispersion modelling become recurring costs for industry. While term-limited permits can be a tool to drive continuous improvement, the combined impact of short permit terms and high reapplication fees escalates the total cost of the regulatory framework.

While the Province has proposed to increase *Environmental Management Act* (EMA) permit application fees, even the increased fees are significantly lower than those proposed by MVRD, especially considering provincial permits include all discharges while MVRD permits only authorize air emissions. Under the Province's proposal, most facilities would pay $1,250 or $2,500 for EMA permit applications.

We recommend that MVRD further review the proposed air permit application and reapplication/renewal fees to ensure consistency with transparent cost recovery principles and with provincial and interprovincial benchmarks.

3. Odorous Air Contaminants (OACs) and Schedule B
We agree that odour is a public concern and support odour management. While we acknowledge both the effort to reduce the number of substances listed in Schedule B, and the proposed reduction of fee rates from the $1,000,000 per tonne rate in the current Bylaw, the proposed approach maintains much of the complexity of Schedule B. Schedule B remains a complex and expensive way to recover a relatively small amount of money (estimated by MVRD at $125,000). For example, industry stakeholders report annual monitoring costs of up to $150,000 for trace-level odorous contaminants required to be monitored under the Bylaw. B.C. is not aware of other jurisdictions that charge emission fees on the array of compounds proposed by MVRD. For the modest cost recovery desired by MVRD, simpler approaches suggest themselves, such as charging fees on total reduced sulfur compounds (TRS) as the Province does and MVRD has previously done.

We recommend Schedule B be removed from the Bylaw and replaced with a simpler approach. Permit conditions for facilities with potential odorous emissions can still include a range of measures including effective control technologies and complaint response protocols.

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Environmental protection is a core objective of the proposed Bylaw and is strongly supported by the Province. At the same time, it is essential to balance this with other critical priorities—affordability in sectors such as agriculture and housing and maintaining BC's economic competitiveness. Permit fee structures that are disproportionately high or unpredictable risk undermining investment, increasing consumer costs, and placing undue pressure on sectors such as agrifood and housing that are already facing affordability challenges.

We appreciate MVRD's significant efforts to improve the Bylaw and acknowledge positive steps such as the reduction in OAC fee rates and the proposed cap on application fees. Further revisions are, however, necessary to ensure the Bylaw supports both environmental protection and economic resilience. We recommend further review and alignment with provincial objectives, ensuring that environmental goals are met without compromising affordability or regional competitiveness.

Sincerely,

Fazil Mihlar
Deputy Minister
Ministry of Jobs and Economic Growth

Kevin Jardine
Deputy Minister
Ministry of Environment and Parks

Michelle Koski
Deputy Minister
Ministry of Agriculture and Food

Attachment: July 29, 2025, Letter – Comments on Proposed Amendments to Metro Vancouver Air Quality Management Fees Bylaw No. 1330, 2021.

cc: Conor Reynolds, Director, Air Quality & Climate Action Services, Metro Vancouver Regional District

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DEC 0 4 2025

File: CR-24-01-016

Kevin Jardine, Deputy Minister
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Michelle Koski, Deputy Minister
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Victoria, BC V8W 9B4
VIA EMAIL: michelle.koski@gov.bc.ca

Dear Deputy Minister Jardine, Deputy Minister Koski, and Deputy Minister Mihlar;

Update on Proposed Amendments to Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021

Thank you for your feedback on the proposed amendments to Metro Vancouver's Air Quality Management Fees Regulation Bylaw and for your continued engagement. Since receiving your letter dated July 29, 2025, we have made several adjustments to the proposed amendments, which are outlined later in this letter and were shared with staff from the Ministry of Environment and Parks and the Ministry of Jobs and Economic Growth on November 21, 2025. We have made some further adjustments in response to your letter dated December 1, 2025, with a particular focus on cost considerations for regulated businesses at this time of economic uncertainty. To allow for deeper engagement with the Province and industry representatives, the timeline for seeking Metro Vancouver Regional District (MVRD) Board approval on bylaw updates has been adjusted to early 2026.

Need for Timely Amendments and Consideration of Feedback
Metro Vancouver is proposing amendments at this time because the current bylaw in effect contains ambiguities and fee rates that can cause some permit holders to pay unintended higher fees in 2026. These issues need to be addressed promptly. We appreciate the input provided in your December 1, 2025 letter, with additional context regarding your outstanding areas of concern. The adjustments described below are being integrated into the proposed amendments, while the

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Metro Vancouver Regional District | Greater Vancouver Water District | Greater Vancouver Sewerage and Drainage District | Metro Vancouver Housing Corporation

project team continues to explore options to address outstanding concerns and overall feedback from various audiences prior to bringing this to the MVRD Board for consideration.

1. **Concern over the current bylaw's scheduled increase to fee rates for all air contaminants between 2025 and 2028 with request to pause current amendments**

The scope of this bylaw update is limited to odorous air contaminants and permit application fees to establish fair rules for all facilities while preventing some facilities from being charged unintended higher fees in 2026. However, we heard strong feedback about predictability and overall competitiveness. In response, Metro Vancouver is proposing lower, predictable fee rates for the odorous air contaminants that are the subject of this bylaw update, which apply to the seven facilities currently permitted for these emissions. Total estimated emission fees for odorous air contaminants across these facilities would be approximately $50,000 in 2026, depending on measured emissions and conditions in forthcoming permits.

In response to your request, we are also considering a four-year review cycle for all fee rates to ensure alignment with actual program costs, emission impacts, and economic conditions. Staff can start this process in 2026 while continuing to pursue the bylaw update underway. Metro Vancouver will engage with all interested parties including the BC government during each review of rates.

2. **Concern over proposed cap of $450,000 on permit application fees**

Currently, there is no cap on permit application fees which can lead to unintended higher levels of fees for some applicants. It is important to emphasize that in the past ten years, 85 per cent of application fees have been less than $10,000 and only one has been greater than $250,000. The initial proposal was a $450,000 cap based on historical efforts to assess permit applications for large, complex facilities. After benchmarking against jurisdictions with similar regulatory models and considering feedback from industry and the Province, Metro Vancouver aims to lower the proposed caps to:

- $220,000 for a new permit
- $110,000 for a permit that would authorize emissions from a facility with an expiring permit

The previous Air Quality Management Fees Regulation Bylaw No. 1083, 2008 had an application fee cap of $50,000. This amount was insufficient to recover Metro Vancouver's costs to process applications for new permits and significant amendments, which led to the removal of a cap in the current bylaw. These caps are only relevant to the largest emitters. During engagement in 2025, the public raised the concern that reducing the cap on the largest emitters could shift more costs to smaller emitters over time.

A permit application fee is charged when an emitter seeks authorization of air emissions from a new facility or from a facility with an expiring permit or approval. To continuously improve air quality in a densely populated industrial centre within a constrained airshed, permits are typically

issued with a term of 10 years or more. For some facilities that aren't employing best available control technology yet, the term can be less than 10 years.

3. Call for substantial simplification of odour management approach

Feedback emphasized the need for clarity, competitiveness, reduced burden, and predictability. We also heard strong feedback about odours causing discomfort and impacts on people's well-being, and ability to work and spend time outdoors. Each year, Metro Vancouver receives about 2,000 complaints on odorous air contaminants; therefore, it is critical that staff have the tools to respond to those complaints and work with emitters in a predictable way to find cost-effective solutions.

Feedback from the BC government raised concerns about the level of complexity associated with odour management in the bylaw, in which Metro Vancouver staff considered alternative methods. Assessing fees on complaints received or effort expended is less predictable. Charging for total reduced sulphur compounds and volatile organic compounds only, as was done prior to 2022, is less proportional to facility impacts and was not considered an effective way to regulate odorous emissions.

After carefully considering research and feedback from the Province and interested parties, the project team intends to recommend the following changes:

- Substantially lower fee rates and reintroducing a rate for total reduced sulphur compounds;
- Shorter list of contaminants that can be assessed with published measurement methods;
- Consistent rates for permitted and measured contaminants;
- Rates displayed in the bylaw for all contaminants subject to fees;
- Clear rules: fees based on permit limits where they exist, otherwise fees based on required measurements;
- No fees for undetectable contaminants; and
- Definitions clarified to prevent double-counting of impacts and to eliminate discretion.

These changes will simplify the framework while maintaining its effectiveness at addressing impacts of odorous air contaminants.

Communications and Engagement Plan

Metro Vancouver staff continues to work closely with BC government staff and other interested parties to ensure that adjusted bylaw amendments reflect shared priorities. To keep all interested parties informed, the project webpage has been updated to convey how feedback is shaping the bylaw amendments, and email notifications are being sent to those who participated in engagement. We will continue to receive and consider feedback until the MVRD Board decides on bylaw amendments.

Next Steps for Collaboration with BC Government

Metro Vancouver remains committed to working closely with BC government staff as the project team finalizes the bylaw amendments that will be recommended to the MVRD Board. While I trust that the adjustments outlined in this letter respond to your concerns, I would be pleased to meet with you to review these adjustments and discuss next steps. In the meantime, if you require any additional information, please contact Conor Reynolds, Director, Air Quality and Climate Action Services by email at conor.reynolds@metrovancouver.org.

Yours sincerely,

Jerry W. Dobrovolny, P.Eng., MBA
Commissioner/Chief Administrative Officer

JWD/HM/eb

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Appendix 2:
Proposed Amendments to Air Quality Management Fees Bylaw:
Engagement Correspondence Received June to August 30, 2025

Affected Public

- Resident - June 30, 2025

Affected Regulated Community

- Amrize Canada - July 31, 2025
- Heidelberg Materials - July 31, 2025
- Cement Association of Canada - August 1, 2025
- Pure Sunfarms Corp. - August 6, 2025
- West Coast Reduction Ltd. - August 8, 2025

Letters have been appended in chronological order.

From: [redacted]
To: Metro Vancouver Air Quality Bylaws
Subject: Feedback on Air Quality Management Fees – Odorous Emissions in East Vancouver
Date: Monday, June 30, 2025 8:49:30 AM
Attachments: Outlook-2xjb3qf5.png

Dear Metro Vancouver Air Quality Team,

I'm writing to provide feedback on the proposed amendments to the Air Quality Management Fees Regulation Bylaw No. 1330.

As a resident of East Vancouver ([redacted]) and someone who works [redacted] at the Ironworks Building (208 Victoria Drive), I want to express my concern about ongoing odour issues in our neighbourhood — particularly in the summer months. For years, strong and unpleasant smells from nearby industrial operations have been a known problem in this area. These odours affect quality of life, impact local businesses, and are increasingly incompatible with the growing mix of residential and commercial uses in the area.

With East Van becoming more mixed-use and dense, it's essential that industrial operations are held accountable for the broader impact of their emissions — especially odorous ones. I appreciate that the proposed amendments to the bylaw aim to clarify and strengthen how fees for odorous air contaminants (OACs) are applied. The inclusion of fee caps, updated measurement methods, and recognition of compounds that cause significant nuisance are steps in the right direction.

However, I urge Metro Vancouver to prioritize enforcement and transparency in this process. The community needs to see that these updated fees will result in **real pressure on emitters to reduce their impact**, not just minor administrative changes. If businesses are not actively improving their emission controls, they should face increasing financial consequences.

I also encourage you to consider how this bylaw can better reflect the changing nature of East Vancouver, where industrial and residential communities are increasingly sharing space. Living and working in this neighbourhood should not mean enduring unhealthy or disruptive air quality.

Thank you for the opportunity to comment. I hope the final amendments will support stronger air quality protections for our community.

Thanks,

[redacted]
208 Victoria Dr • Vancouver, BC • V5L 0C7
[redacted]

July 31, 2025

Metro Vancouver
Air Quality and Climate Action Services
4730 Kingsway, Burnaby BC

Attention: Esther Bérubé, P.Eng. Division Manager and Bylaw and Regulation Development
AQBylaw@metrovancouver.org

Dear Ms. Bérubé,

Thank you for the opportunity to comment on the proposed amendments to Metro Vancouver's Air Quality Management Fees Regulation Bylaw No. 1330. Amrize Canada, previously Lafarge Canada, is the largest domestic producer of cement in Canada, and we are proud to share that our Richmond Cement Plant produces one of the lowest carbon intensity cement in all of Canada.

The Richmond Cement Plant has invested significantly in facility upgrades since the late 1990s, beginning with the installation of best available technology, a highly efficient five stage pre-heater pre-calciner kiln with baghouse filtration. With the introduction of provincial carbon tax in 2008, the Richmond Plant changed fuels from coal to natural gas, and invested over $18MCAD in co-processing to allow for the use of biogenic waste-based fuels to lower combustion related CO2; cement formulation has also changed since 2010 to produce a lower carbon intensity cement. Our commitment to improve our environmental performance is steadfast and has resulted in change for the betterment of the building community in Metro Vancouver and the Pacific Northwest.

It will not be a surprise to Metro Vancouver that the lower mainland is an exceedingly expensive region to operate as industry. Many improvements implemented by the Richmond Plant has been completed with environmental performance in mind, but also to ensure the viability of cement manufacturing at the Richmond Plant for many years to come. The Richmond Plant employs over 100 people on site and indirectly employs thousands of people in and around the lower mainland. Air Permit fees paid by the Richmond Plant have steadily increased and are one of the highest in all Amrize facilities in North America, and the amendment fees are the highest in North America.

Amrize understands and supports the user – pay principle, and that Metro Vancouver must recover regulatory program cost in a fair manner. Amrize has demonstrated through historical permit reviews that we are accepting of reasonable fee increases and changes in emission limits for the benefit of air quality and human health in the region. Previous permit amendments for our Richmond Facility have been completed in a timely manner and we do not believe have incurred excessive time and cost to Metro Vancouver.

Amrize is however, not in support of subsidizing other industries in the Metro Vancouver region who continue to extend permit renewals for years with no end in sight and with no intension to spend capital to install new technology to reduce emissions. The proposed maximum fee for application for authorization of $450,000 feels punitive for industries who are willing to work together with Metro Vancouver on air quality improvement.

2300 Rogers Avenue, Coquitlam BC
T: 1 604 521 8811 **amrize.com**

We understand that this proposed maximum is to replace the current bylaw which has no maximum, but the proposed maximum is not an improvement. The Richmond Plant, based on the current permit fees, will have to pay the proposed maximum and the fee does not help in preserving competitiveness for domestic manufacturing during a time for economic upheaval. Decreasing the proposed maximum as an incentive for proponents who are able to complete amendments in a timely manner could be a good method to decrease load on Metro Vancouver and also lower cost for all parties. We are proposing that Metro Vancouver offer a rebate of half the maximum authorization fee to the permittee for use as a credit their first year of permit fee after renewal, if they are able to complete the renewal within a period of time agreed upon with Metro Vancouver.

For instance, should the proponent's new amended permit fees amount to $500,000, they would pay the maximum application fee of $450,000. If at the beginning of the renewal process, there is an agreed upon timeline for the renewal, and the permit is renewed within this period, Metro Vancouver would rebate $225,000 to the permittee for use to pay for their $500,000 permit fee, resulting in a remaining balance of $275,000 to be paid in the first year.

In regards to the proposal for cases where no permitted limits exist for odorous air contaminants (OACs), and the measured emissions for a specified OAC are below the detection limit for analytical method used, Amrize does not agree to the application of the emission fee rate to 25% of the analytical method detection limit. Detection limits are typically in line with the lowest concentration at which the human nose can first detect a smell; should measured emissions be below detection limits, they should not be charged a fee. Amrize understands that while odor can be a significant nuisance, it is not immediately harmful to human health.

Thank you for the opportunity to provide comments on the proposal. My team and I are available to discuss our feedback in more detail.

Regards,

Stephanie Voysey, P.Eng.
Head of Sustainability and Environment
Amrize Canada Inc.

2300 Rogers Avenue, Coquitlam BC
T: 1 604 521 8811 **amrize.com**

Heidelberg Materials

Heidelberg Materials Canada Limited
Delta Cement Plant
7777 Ross Road
Delta, BC V4G 1B8

July 31, 2025

Metro Vancouver
Air Quality and Climate Action Services
Parks and Environment
4730 Kingsway
Burnaby, BC V5H 0G6

Attention: Esther Berube, P.Eng. Division Manager, Bylaw and Regulation Development
AQBylaw@metrovancouver.org

Subject: Proposed Amendments to Air Quality Management Fees in Metro Vancouver

Dear Ms. Berube,

Heidelberg Materials Canada Limited (formerly Lehigh Hanson Materials Limited) would like to thank you for the meeting with your staff on July 14, 2025, on the proposed amendments to Metro Vancouver's air quality management fees in Regulation Bylaw No. 1330, 2021. As per our meeting, there were two key amendments that we had provided our comments: reducing the maximum application fees for authorizations and charging interest on overdue payment of fees.

Heidelberg Materials appreciates that Metro Vancouver is proposing a maximum limit for application fees for permits, approvals and amendments; however, we believe that the limit of $450,000 is still exceptionally high. In 2020 when Metro Vancouver had proposed fee increases, we had recommended that the cap of $50,000 be maintained for the approval of new permits or the renewal of expiring permits. In consideration of what other cement plants may be paying in terms of permit application fees, we find that Metro Vancouver's fees are significantly higher. The following table lists fees paid by some other cement plants. Included are two other Canadian Heidelberg Materials cement plants: Edmonton, AB and Picton, ON.

Table 1

Location	Permit Renewal Fee	Application Fee for a New Permit
Alberta – Edmonton Plant	$15,000	$30,000
Ontario – Picton Plant	Less than $18,000	$18,000
Nova Scotia	$8,625.15	$8,625.15
Quebec	$11,955 (amendment)	
Pennsylvania	$4,000 USD	

Although it is not clear how often the above permit renewal fees are paid by these other cement plants as it would depend on their permit terms, we could consider the scenario that if a plant had a term of only four years, the cost of two term renewals would still be significantly less than Metro Vancouver's one term renewal fee.

Metro Vancouver has stated that the justification for their proposed $450,000 cap is based on cost recovery for their regulatory programs. Heidelberg Materials believes that the annual permit fees for high emitting industries should already cover these costs. In 2024, our facility in Delta paid the air quality permit annual fee of $1,062,889.93. It should be noted that the emission fee rates will continue to increase annually until 2028.

Metro Vancouver needs to recognize that there are business challenges and costs that companies such as Heidelberg Materials face. We cover the cost of all emission testing as required in the air quality permit as well as the cost of special studies such as air dispersion modelling requested by Metro Vancouver. The permit also requires us to operate the continuous emission monitoring system (CEMs) for our kiln stack emissions. Heidelberg Materials covers all costs for the CEMs including testing, maintenance and replacement of equipment. There are also maintenance and replacement costs for all our dust collection systems.

In 2020, Heidelberg Materials installed the selective non-catalytic reduction (SNCR) system in our kiln line to reduce NOx emissions. This was a multi-million-dollar capital investment. Since the installation, we have had to add to our operating budget the maintenance cost for the SNCR as well as the cost of the reagent of aqueous ammonia.

Heidelberg Materials also faces the challenge of tariffs on the shipment of our product to the United States. There are also costs associated with greenhouse gas emissions in that we have had to pay the carbon tax up until Q1 2024 and now the output-based pricing system as of April 1st, 2024.

With the business challenges and increasing operating costs, Heidelberg Materials does not support Metro Vancouver's proposed maximum limit of $450,000 for application fees for permits,

Heidelberg Materials

approvals and amendments. We believe this limit is exceptionally high and we recommend that the cap be reduced to as low as $50,000 as it was before 2021. In this letter, we have included an attachment of an earlier letter that we had submitted with our comments on the 2020 proposed fee amendments. This letter dated April 30, 2021 also stated our opposition to the elimination of the Measured Discharge Program (MDP). With the elimination of the MDP, Heidelberg Materials has lost the potential savings of $100,000 to $150,000 in our annual permit fees based on actual emissions.

On Metro Vancouver's proposed amendment to charge interest for overdue invoices after 30 days, Heidelberg Materials does agree with the charges of 1.25% per month or 15% per annum. However, we find the 30 days payment period too short, and we have had issues in the past on meeting the timeline as our accounts payable system is complex. We request that the payment terms be extended to 45 days.

Heidelberg Materials Canada Limited appreciates this opportunity to respond to Metro Vancouver's proposed amendments to the air quality management fees in Regulation Bylaw No. 1330, 2021. We hope that you will take into consideration of our concerns and recommendations.

Yours truly,

Eileen Jang, P.Eng.
Environmental Manager

cc: Pascal Bouchard, Plant Manager, Heidelberg Materials Canada Limited

Attachment: Letter dated April 30, 2021 on the Proposed Amendments to Air Quality Fees and Measured Discharge Program

Lehigh Cement,
a division of Lehigh Hanson Materials Limited
7777 Ross Road
Delta, British Columbia V4G 1B8
P.O. Box 950 V4K 3S6

April 30th, 2021

Metro Vancouver
Parks and Environment
Metrotower Office Complex – Metrotower III
4730 Kingsway
Burnaby, BC V5H 0G6

Attention: B. Neal Carley, P. Eng. General Manager, Parks and Environment
Neal.Carley@MetroVancouver.org
AQBylaw@MetroVancouver.org

Subject: Proposed Amendments to Air Quality Fees and Measured Discharge Program

Dear, Mr. Carley:

Lehigh Hanson Materials Limited is writing to provide feedback on the proposed amendments to Metro Vancouver's air quality fees for 2022 and 2025 and the proposed discontinuation of the Measured Discharge Program (MDP). Our plant is strategically located in the Lower Mainland to provide cement to the construction industry. Lehigh is a strong contributor to the local economy, supporting a vast variety of jobs and services. We appreciate the opportunity to provide our comments.

We are concerned that Metro Vancouver is asking industry to carry a disproportionate share of the cost of regulation and enforcement. This position overlooks the reasons why industry exists which includes providing goods and services that benefit the community. It is fair that regulatory costs be the responsibility of both industry and the community.

Lehigh opposes the proposed air contaminant fee rates as they would more than double our annual permit fees by 2025. Such an increase is grossly unreasonable. It is not the intent for industry to emit but unfortunately emissions are a result of the process. Higher fees are not always an incentive to achieve further emission reductions because there can be a limit to what is achievable. Table 1 shows the potential annual permit fees Lehigh would be expected pay compared to our current fees.

Table 1

	Current Year 2021	2022	2025
Base total for air contaminants with permit limits	$ 588,763	$ 846,746	$ 1,216,817
Additional fees for air contaminants with no permit limit	$ 102,393	$ 194,096	$ 448,121
Total annual fee without the MDP	$ 691,156	$ 1,040,842	$ 1,664,938

Lehigh does not support the removal of the $50,000 cap for the approval of new permits or renewed expiring permits. Without the cap, a large emitter would have to pay a substantial amount for a permit renewal in addition to the annual air quality permit fees. It is unlikely that the cost for Metro Vancouver to review and approve one permit would be in excess of the annual permit fees, let alone two times the annual fees. It should be noted that in 2016, Metro Vancouver put in place the

$50,000 cap because it was considered unfair for a certain large emitter to pay an excessive permit renewal fee of over one million dollars.

The proposed discontinuation of the MDP penalizes permit holders. It is understood that industries maintain permit limits that are more than their actual emissions to allow for a short-term increase because of process variability. Since fees are based on permit limits rather than actual emissions, the MDP would account for the differences when the permittee meets stringent requirements.

Metro Vancouver states that the MDP favours large emitters because they are more likely to have expensive continuous emission monitor equipment (CEMs) needed to demonstrate eligibility for the program. For Lehigh, the CEMs is a requirement in the air quality permit. If the MDP were eliminated, Metro Vancouver would not necessarily allow the permittee to discontinue the use of the CEMs. Lehigh strongly opposes the proposed discontinuation of the MDP.

We recommend that Metro Vancouver re-evaluate the proposed amendments to the air quality fees and have them fairly reflect the cost of regulation and enforcement. Lehigh also recommends that Metro Vancouver retain both the Measured Discharge Program and the $50,000 cap for the approval of new or renewed expiring permits.

Sincerely yours,

Eileen Jang, P.Eng.
Environmental Manager

Cc: Pascal Bouchard, Plant Manager, Lehigh Delta Cement Plant

Cement Association of Canada

August 1, 2025

SUBMISSION: Proposed Amendments to Air Quality Management Fees Bylaw in Metro Vancouver

Metro Vancouver

Air Quality and Climate Action Services

Parks and Environment

4730 Kingsway

Burnaby, BC V5H 0G6

Attn: Esther Berube, P.Eng. Division Manager, Bylaw and Regulation Development

AQBylaw@metrovancouver.org

Dear Ms. Berube,

The Cement Association of Canada (CAC) appreciates the opportunity to comment on the proposed amendments to the Air Quality Management Fees Regulation Bylaw No. 1330, 2021.

The CAC is the leading voice of Canada's cement industry, whose six member companies produce the cement, concrete and aggregates needed to build housing and infrastructure and create economic growth in communities across the country, including Metro Vancouver.

B.C. has two cement facilities, both located in the Metro Vancouver region, the Amrize (formerly Lafarge) facility in Richmond and the Heidelberg Materials facility in Delta. The cement and concrete industry in B.C. support more than 10,000 direct and indirect jobs and generate $11 billion in direct, indirect, and induced economic benefits – with many of these benefits realized in Metro Vancouver.

We are deeply concerned that the proposed amendments related to permit fees will levy unjustified and onerous costs to cement manufacturing facilities, with limited transparency and certainty, at a time when it is more important than ever to protect Canadian and regional manufacturing.

Like energy, cement and concrete are strategic commodities upon which B.C.'s economy depends. B.C. can only maintain economic sovereignty by ensuring that it has a reliable domestic supply of cement and concrete to support the construction of infrastructure projects, including energy and electricity projects, roads and bridges, hospitals and schools, and homes.

The cement industry is undergoing an historic innovation cycle to modernize and compete in the new global economy. Attracting investment is critical for British Columbian cement facilities to remain competitive. Investment and modernization will go to facilities where there are market conditions that support competitiveness. B.C. is already a high-cost jurisdiction where our facilities face significant pressure from more polluting and higher carbon imports that do not face carbon pricing or similar regulatory costs. Proposed amendments to Metro Vancouver's Air Quality Management Fees risk significantly

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cement.ca

exacerbating this pressure, to the detriment of the environment and B.C.'s economy. **Without adjustment, we are at even greater risk of displacing B.C. production and jobs with more polluting higher-carbon imports.**

While the cement industry appreciates the intent of the amendments to clarify and update definitions for permittees, the amendments **do not provide the needed transparency and certainty to protect B.C.'s cement industry**. In particular, the CAC is concerned regarding the limit of $450,000 on application fees for businesses applying for authorization to discharge air contaminants. Cement facilities already pay significant annual costs to comply with the existing by-law and it is unclear how and or why a $450,000 application fee aligns with the stated cost recovery goals. Further, these increased compliance costs are being added in an already challenging competitiveness environment, driven by B.C.'s uniquely stringent industrial carbon price as well as unprecedented economic turmoil caused by the U.S.'s trade upheaval. The viability of cement manufacturing in the lower mainland is at risk.

We request that Metro Vancouver:

- Decrease the application fee limit to preserve competitiveness and attractiveness for foreign direct investment within the region. Given that Metro Vancouver is unique in requiring both an annual emissions fee, a provincial industrial carbon price and a significant permitting fee, capping the limit at a meaningfully lower level would be better aligned with the region's goals to attract and preserve building materials manufacturing activity.
- Increase transparency regarding the use of annual emissions fees, including how they relate to cost-recovery and contribute to abating emissions.
- Increase fairness and transparency with respect to establishing term lengths for permits. The CAC understands that Metro Vancouver began establishing expiry dates for permits over the last decade, and that decisions on term lengths for permits are made on a case-by-case basis. This could lead to unfairness and uncertainty for large facilities, further damaging the investment environment in the region.

Against the backdrop of increasing instability impacting global supply and demand and rising competition from peer jurisdictions for foreign direct investment, it is critical to ensure that B.C. remains an attractive and viable destination for modernization and investment throughout the materials sector.

We appreciate and share Metro Vancouver's desire to reduce emissions, as we have committed to reaching net-zero emissions across all Canadian facilities by 2050. Since 2008, B.C.'s cement facilities have invested approximately $20 million on multiple capital projects to reduce emissions and improve the environmental performance of our facilities.

However, the significant costs levied on facilities in the Metro Vancouver area are not only a deterrent to attracting further investment and retaining production at existing cement facilities, they will further erode the competitiveness of domestic producers against dirtier, cheaper imported cements from areas of the world with less environmental regulation. B.C. is already the most exposed jurisdiction in Canada to cement imports (largely from Vietnam, Singapore, China). Metro Vancouver's proposed amendments related to the permit fee limit will compound this import pressure, further eroding jobs, investment and carbon leakage in B.C. and threatening that stability of a domestic supply of a building material essential to Metro Vancouver's and B.C.'s economic sovereignty and infrastructure needs.

We appreciate the time you have taken to consult with us and for the opportunity for us to provide our feedback. We are available to discuss our recommendations further: please contact Adam Auer, President and CEO of the CAC at aauer@cement.ca or 613-236-9471 Ext. 3.

Sincerely,

Adam Auer
President & CEO
Cement Association of Canada

From: Julia Cameron
To: Metro Vancouver Air Quality Bylaws
Subject: Clarification Requested on Proposed Air Quality Management Fee Increases and Impact on Farms
Date: Wednesday, August 6, 2025 10:41:28 AM
Attachments: image001.jpg
image002.png

Dear Air Quality Bylaw Team,

I am writing regarding the *Proposed Amendments to Air Quality Management Fees* discussion paper, which unfortunately only came to my attention after the August 1 engagement deadline.

After reviewing the document, I found it unclear whether the proposed fee increases are intended to apply to farming activities in the region. As a member of Metro Vancouver's Agricultural Advisory Committee and a representative of the farming community, I would appreciate clarification on this point.

I would also like to express strong opposition to any increase in air quality management fees that would apply to farming activities related to agricultural crops or products. Farms in the region already face significant operational and financial pressures, and any added costs could further impact their sustainability and competitiveness.

Additionally, I would expect that any proposed changes with the potential to affect the agricultural community would be brought to the Agricultural Advisory Committee for input. To my knowledge, this proposal was not presented to the committee—a missed opportunity for meaningful engagement, particularly if producers may be impacted.

Thank you for your attention to this matter. I would welcome the opportunity to provide further feedback should additional consultation take place.

Sincerely,

Julia Cameron

Julia Cameron (she/her)
Vice President, Communications & Corporate Affairs
Pure Sunfarms Corp.
C. 604-722-6716
E. jcameron@puresunfarms.com
4431 80th Street, Delta, BC, Canada V4K 3N3

WEST COAST REDUCTION LTD.

West Coast Reduction Ltd.
1292 Venables Street
Vancouver, British Columbia V6A 4B4
Phone: 604.255.9301

August 8, 2025

Consultation on Proposed Amendments to
Metro Vancouver Air Quality Management Fees Bylaw 1330

West Coast Reduction Ltd. ("WCRL") offers the following as our feedback and recommendations regarding proposed amendments to the Metro Vancouver Air Quality Management Fees Bylaw 1330 ("the Bylaw"), and the permitting approach the Bylaw necessitates.

While we welcome the opportunity to engage in this process, it may be that other potentially impacted permit holders have been overlooked and are unaware of the issues dealt with in the consultation and therefore not participating. This is because, as Metro Vancouver staff have stated, the Bylaw "works in concert with permits", and a small change to a permit could bring a business's emissions into the scope of a Bylaw it had no opportunity to comment on. It may be, in fact, that the majority of current permit holders that will ultimately be impacted by this bylaw are unaware of this consultation.

This might be a consideration in determining who may have valuable feedback to offer.

The Cost Recovery Concept

The recovery of reasonable administrative costs associated with permitting and monitoring industrial emissions through the collection of fees is an appropriate and accepted practice. The mechanism by which the costs are apportioned, however, should at a minimum have the following attributes:

- Transparency of the source of the costs
- Practicality and reliability of the metric for apportioning the costs
- Predictability of fees for the regulated business
- Efficiency – the cost to the regulator and the business to administer the cost recovery mechanism should not be disproportionate to the costs it seeks to recover

Bylaw 1330 has none of these attributes, and the proposed amendments do nothing to remedy that.

The problems with the Bylaw can be summed up in one example. The stated total annual costs related to odorous emissions that the Bylaw seeks to recover from all affected permit holders is $300,000.00, yet it could cost one permit holder $150,000.00 just to calculate their fee, which turns out to be $1,700,000.00.

The incongruity of these numbers points to a problem much more fundamental than the values in the Bylaw's rate tables which are the focus of the proposed amendments.

Further, it is still unclear if legal costs are or should be included in the costs Metro Vancouver is seeking to recover. What is clear is that legal costs associated with appeals brought on by regulatory overreach, such

as the permit terms necessitated by the Bylaw, that were decided against Metro Vancouver should not be included. To do so would be tantamount to awarding yourself costs for a legal suit you've lost, repeatedly.

Health Costs

The inclusion of the Health Effects Study as a "resource" supporting these amendments on the Metro Vancouver website may mislead some to think it supports the fee calculations and/or can quantify the health-related costs of a particular substance. It cannot, and it does not purport to do so. In fact, as confirmed by the report's author, it does not mention or consider odour in any way.

At issue in this Bylaw are the fees for "odorous air contaminants". It cannot be that the driver for these fees is health impacts when the fee for emitting a recognized Hazardous Air Pollutant is more than 600 times more for its odorous qualities than for its hazardous qualities.

A Barrier to Investment

The inexplicable magnitude and volatility of the fees related to this Bylaw, along with inconsistent messaging regarding interpretation of its application, have created a business environment in the region that is unsuitable for investment.

The scale of the increase in fees that the current Bylaw represents and the reduction of rates that are the subject of the proposed amendments are both on the order of hundreds of times. The proposed amendments do not address or recognize the flawed underlying theories in the Bylaw that result in such volatility. Those underlying theories are the application of Odour Units and the related concept of Odour Detection Thresholds to the calculation of fees. As long as these theories remain at the heart of this bylaw the business uncertainty they create remains.

The Flawed Theories

Odour Units (called "whole emission discharge" in the Bylaw) are a "unit" derived by a scientific-sounding method named Dynamic Olfactometry. However, they are derived in a process that is anything but scientific and involves people sniffing an air sample and determining whether or not they smell something, anything. They have been repeatedly found to be too subjective and inaccurate for use as a permit compliance measurement or fee mechanism by the Environmental Appeal Board, yet they are repeatedly found in Metro Vancouver regulations that are outside of the Environmental Appeal Board's jurisdiction, surrounded in just enough technical verbiage to give them the air of plausibility needed to satisfy the Metro Vancouver Board, but where they are no more appropriate.

The problems with Odour Units pale in comparison to those of the Odour Detection Threshold theory. Odour Detection Thresholds are ostensibly the lowest concentration of a substance, in this case an odorous air contaminant, that the human nose can detect. Where Odour Units attempt to determine the smelliness of an air sample, the Odour Detection Threshold theory attempts to determine the smelliness of an individual substance, apply that to how much of that substance is in an air sample, repeat that for every substance in a sample, apply varying fee rates to each substance and add them all up and determine the fee for the total emission. The compounding huge uncertainties in every step of this process, and faulty

concepts of additive smelliness make this theory fatally flawed and explain why it does not exist in any other jurisdiction in North America, and probably the world.

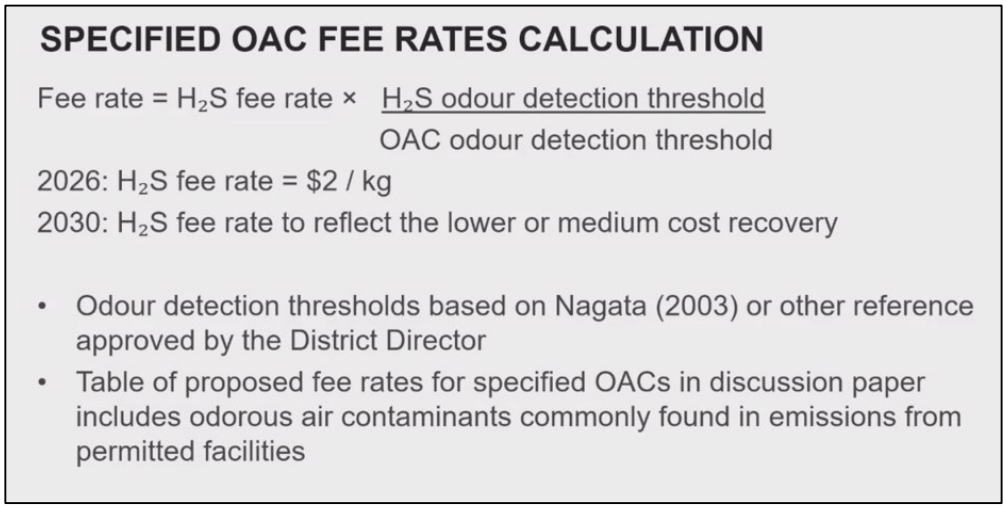
Odour Units, with all of their inadequacies, are at least derived by way of a method (the so-called European Standard, EN 13725:2003) that attempts to apply some form of rigor to their measure. The fundamental problems with Odour Detection Thresholds is that they are derived through various primitive forms of sniff tests and consequently can vary by several orders of magnitude depending on the reference they are found in. There is no single Odour Detection Threshold value for any substance.

To illustrate the uncertainties that the Odour Detection Threshold theory creates in the fee calculations, first consider the two main sources of these values referenced in the Bylaw: Nagata (2003) and Devos (1990). Nagata (2003) is the source of most of the values used in the Bylaw fee calculations. While the paper was written in 2003, it describes an "experiment" conducted between 1976 and 1988, in Japan, where a panel of six people (four of whom remained for the entire experiment) used the "triangle odor bag method" (they sniffed samples) to determine the "odor threshold" for 223 substances.

The other main reference is known as Devos (1990). Devos is an attempt to mathematically "standardize" the widely variable odour threshold values of 529 substances, derived through various methods, found in 105 references, which are on average 70 years old. The oldest of which is 177 years old.

All of these values are based on some form of sniff test and all of the mathematical weighing, normalizing, and standardizing methods applied to the results cannot erase the huge variability of values resulting from this fundamentally subjective method. The definition of Odour Detection Thresholds found in Bylaw 1330 does not note this variability, in fact it suggests that the values used were derived using a standard method. They were not.

To illustrate the implications of this variability, consider the example fee calculation from a Metro Vancouver presentation on the subject below:



Excerpt from Metro Vancouver consultation presentation

The fee rate for an individual substance is derived by dividing one Odour Detection Threshold value by another, compounding their individual variabilities which are factors in the hundreds and resulting in a fee that can have a variability (uncertainty) factor in the tens of thousands.

The fee calculations require that one Odour Detection Threshold for each substance be selected for use in the formula. Metro Vancouver's stated method of selecting one Odour Detection Threshold value amongst the wide range of values is to choose the lowest, which results in the highest fee.

To apply an Odour Detection Threshold value to the fee calculation requires knowing how much of a particular substance is in an emission stream. To calculate the fee for the entire emission requires knowing how much of every substance is in an emission stream. These two things are unknowable, and the attempts to know them (required stack sampling and analysis) that are built into the permit terms that the Bylaw necessitates add yet another layer of compounding uncertainty, complexity and cost to the fee calculations.

Accurate sampling and analysis of these substances is, in most cases, not possible and attempts to do so result in unsupportable data, confusion and enormous cost. WCRL has previously submitted to Metro Vancouver a report from RWDI Air Inc., Technical Review Of Metro Vancouver Source Sampling – Air Quality Permit GVA 1197 (West Coast Reduction Ltd.), which details the uselessness of the resulting data and the futility of the costly exercise.

The final step in calculating fees is to assign a cost to the base comparison substance, Hydrogen Sulphide (H_2S). The rationale for the assigned cost of $2/kg is not clear.

It's hard to imagine a more unnecessarily complex, opaque, and unscientific regulation. It is reminiscent of a Rube Goldberg machine. A machine intended to achieve a simple task by way of the most complex and convoluted mechanism possible. A mechanism so complicated that its only conceivable purpose is to showcase the cleverness of its designer.

Where the Bylaw differs from a Rube Goldberg machine is in the fact that a Rube Goldberg machine ultimately accomplishes its simple task.

The Solution

The solution to the problems with Bylaw 1330 is to amend it in a way that removes the underlying flawed theories:

1. Remove Schedule B in its entirety.
2. Remove all reference to Odorous Air Contaminants, Odour Detection Thresholds and Odour Units.
3. Devise a method of apportioning reasonable and transparent administrative costs related to odorous emissions between the respective permit holders that uses accepted mainstream methods to measure standard air emission parameters such as Total Reduced Sulphur and/or Total Volatile Organic Compounds.

WEST COAST REDUCTION LTD.

Permitting Implications

While this consultation process is about Bylaw 1330, it cannot be overlooked that the Bylaw necessitates permit terms without which fees could not be assessed. In other words, permits have been written to require the measurement of substances that support the calculation of fees set out in the Bylaw.

Along with the amendments to the Bylaw suggested here, these resulting permit terms that would no longer serve a purpose, should be removed from all permits.

Moving Forward

The changes to the Bylaw and permits proposed here are very different from the amendments that are proposed by Metro Vancouver staff and may seem like radical steps. They are in fact simply the undoing of radical missteps taken in 2021.

To avoid missteps like these in the future, it's important to ensure Metro Vancouver directors have the benefit of all relevant background on issues they are asked to decide on. In this case it may have been helpful for the directors to know that the question of the usefulness and appropriateness of Odour Units, and therefore Odour Detection Thresholds, has been answered. Since 2007, when Odour Units were first introduced in a Metro Vancouver permit, BC taxpayers have paid for the Environmental Appeal Board to hear multiple lengthy and expensive appeals centered on that question, appeals that also cost industry and Metro Vancouver millions of dollars. In every case the Environmental Appeal Board has decided that Odour Units, due to their subjective and unreliable nature, are not suitable for use as a compliance measure or fee mechanism.

We would hope that, while the Environmental Appeal Board's authority does not extend to the Metro Vancouver Board's decisions, the Board would recognize and respect the validity of the Environmental Appeal Board's decisions.

Sincerely,

West Coast Reduction Ltd.

Ken Ingram
Director of Technical & Environmental Services
Direct: 604.252.2078
Email: kingram@wcrl.com

Appendix 3:
Proposed Amendments to Air Quality Management Fees Bylaw: Engagement
Correspondence Received after August 30, 2025

Health Authority

- Vancouver Coastal Health - October 22, 2025

Affected Regulated Community

- Cement Association of Canada - October 23, 2025
- Cement Association of Canada - January 8, 2026

Letters have been appended in chronological order.

Vancouver Coastal Health

Office of the Chief Medical Health Officer

#800 - 601 West Broadway
Vancouver, BC V5Z 4C2
Telephone: 604-675-3900
Fax: 604-731-2756

October 22, 2025

Conor Reynolds, Director, Air Quality & Climate Action Services
Metro Vancouver
Delivered electronically to: conor.reynolds@metrovancouver.org
Cc: AQbylaw@metrovancouver.org

Re: Proposed amendments to Metro Vancouver's Air Quality Management Fees Bylaw No. 1330

Dear Conor Reynolds:

I am writing in my role as a Medical Health Officer for communities within the Metro Vancouver area, regarding the proposed amendments to Metro Vancouver's *Air Quality Management Fees Bylaw No. 1330*, specifically regarding fees for odorous air contaminants. Following careful public health review by our Vancouver Coastal Health program, I am pleased to provide the comments and recommendations below for your consideration.

Odorous air contaminants, while not always directly linked to acute toxicological effects, can have impacts on individual and community wellbeing, mental health, and quality of life. Exposure to unpleasant odours is associated with annoyance and anxiety and the level of impact is associated with a variety of symptoms. In addition, residents experiencing odours frequently report behavioral changes that create impediments to healthy living. These include reduced use of outdoor spaces such as backyards and parks, avoiding neighbourhood walks and active transportation, and barriers to opening home windows for cooling purposes during warm weather.

The *Smell Vancouver* app is a community-driven tool that enables residents to report and track odours throughout the region. It captures information on how these odours affect daily activities and allows users to log related health symptoms. The actions taken by users in response to odours illustrates how odours can interfere with local residents' daily lives:

- **Heat-health risk**: 43% of users responded to odours by closing windows or using air purifiers. Closing windows limits natural ventilation and could lead to increases in indoor temperatures and heat-related health risks.
- **Mental health and wellbeing**: Going indoors to escape odours (reported by 26% of users) can reduce opportunities for social interaction and access to outdoor environments critical for mental health and wellbeing.
- **Physical activity**: 10% of users reporting stopping exercise in response to odours, leading to physical activity reductions.

Recommendations

Given the wellbeing and quality of life impacts of odorous air contaminants, I recommend the following regarding the fee adjustments for odours air contaminants:

1. Consider the burden of odours on the health and wellbeing of affected communities, ensuring that fees contribute to effective incentives to reduce odorous emissions.
2. Maintain a robust monitoring and enforcement approach to address sources of odorous emissions.
3. Continue to integrate community-sourced data[1,2] (such as the *Smell Vancouver* app) into monitoring of odours air contaminants, complementing traditional air quality monitoring, to ensure that emission permitting and enforcement addresses community concerns.

Vancouver Coastal Health

Office of the Chief Medical Health Officer

#800 - 601 West Broadway
Vancouver, BC V5Z 4C2
Telephone: 604-675-3900
Fax: 604-731-2756

I appreciate your attention to the role of regulatory fees as an important tool to protect health and wellbeing for all residents in Metro Vancouver. Thank you for considering this public health perspective as you review the proposed amendments.

Sincerely,

Michael Schwandt, MD MPH FRCPC
Medical Health Officer, Vancouver Coastal Health

References:

1. Bhandari et al (2024) Odor, Air Quality, and Well-being: Understanding the Urban Smellscape Using Crowd-Sourced Science. Available at: https://iopscience.iop.org/article/10.1088/2752-5309/ad5ded
2. Eykelbosh et al (2021) Elucidating the Community Health Impacts of Odours Using Citizen Science and Mobile Monitoring. Available at: https://pubs.ciphi.ca/doi/10.5864/d2021-010

Cement Association of Canada

October 23, 2025

Dear Members of the Air Quality and Climate Committee,

On behalf of the Cement Association of Canada (CAC), I am writing to you today regarding our **serious concerns with the proposed amendments to the Metro Vancouver Regional District (MVRD)'s Air Quality Management Fees Regulation Bylaw No. 1330, 2021.**

The CAC is the leading voice of Canada's cement industry, whose six member companies produce the cement, concrete and aggregates needed to build vital housing and infrastructure and create economic growth in communities across the country, including Metro Vancouver and B.C.

B.C. has two cement plants, both located in the Metro Vancouver region, the Amrize (formerly Lafarge) facility in Richmond and the Heidelberg Materials facility in Delta. B.C.'s cement and concrete industry support more than 7,500 direct and indirect full-time jobs, contributing more than $700M annually to the economy through wages and salaries – with many of these benefits realized in Metro Vancouver. Approximately 90 per cent of the jobs in B.C.s cement and concrete industry are fulltime high-paying jobs, with hourly wages that exceed the total industry national average by 30 per cent.

We are deeply concerned that the proposed amendments related to permit fees will levy unjustified and onerous costs to cement plants, with limited transparency and certainty, at a time when it is more important than ever to protect Canadian and regional manufacturing.

Like energy, cement and concrete are strategic commodities upon which B.C.'s economy depends. B.C. can only maintain economic sovereignty by ensuring that it has a reliable domestic supply of cement and concrete to support the construction of infrastructure projects, including energy and electricity projects, roads and bridges, hospitals and schools, and homes.

In B.C., a significant portion of cement (estimated at more than 15% of total demand in 2024) used in the province is imported, primarily from countries like Vietnam with limited environmental and labour standards. As a result, the imported cement is priced to undercut domestic, locally produced cement by B.C. workers and companies who contribute to the economy.

Against the backdrop of increasing instability impacting global supply and demand, it is more critical than ever to **support local B.C. cement producers against unfair competition from jurisdictions with lower environmental, social and labour standards** by creating a competitive, fair, and predictable business environment.

British Columbia's industrial manufacturers need a level playing field to ensure that cheaper, carbon-intensive materials do not erode local, domestic, low-carbon manufacturing.

Proposed amendments to the MVRD's Air Quality Management Fees risk significantly exacerbating this pressure, to the detriment of the environment and B.C.'s economy. **Without adjustment, we are at even greater risk of displacing B.C. production and jobs with more polluting higher-carbon imports.**

While the cement industry appreciates the intent of the amendments to clarify and update definitions for permittees, the amendments **do not provide the needed transparency and certainty to protect B.C.'s cement industry**. In particular, the CAC is concerned regarding the permit fee ceiling of $450,000 for application fees for permits, approvals and amendments for businesses applying for authorization to discharge air contaminants. Cement plants already pay

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significant annual costs to comply with the existing by-law, and it is unclear how and or why a $450,000 application fee aligns with the stated cost recovery goals. Further, these increased compliance costs are being added in an already challenging competitiveness environment, driven by B.C.'s uniquely stringent industrial carbon price as well as unprecedented economic turmoil caused by the U.S.'s trade upheaval. The viability of cement manufacturing in the lower mainland is at risk.

To better illustrate the existing annual costs to comply with the by-law, please find historical costs paid from each facility below:

	Richmond (Amrize)	**Delta (Heidelberg)**
Air Permit Fee	$313,256 (2016) $279,179 (2017) $275,000 (2018) $264,952 (2019) $262,599 (2020) $262,713 (2021) $319,688 (2022) $378,978 (2023) $436,566 (2024) $493,073 (2025) Total fees paid, 2016-2025: **$3,286,009**	$446,167 (2016) $655,177 (2017) $655,616 (2018) $475,177 (2019) $659,539 (2020) $659,539 (2021) $788,328 (2022) $930,258 (2023) $1,062,889 (2024) $1,196,298 (2025) Total fees paid, 2016-2025: **$7,523,995**
Annual spend on air emissions testing	$95,000 (2016) $94,502 (2017) $110,898 (2018) $245,000 (2019) $117,638 (2020) $82,285 (2021) $350,241 (2022) $449,804 (2023) $159,793 (2024) $119,085 (2025) Total fees paid, 2016-2025: **$1,579,492**	$100,000 (2016) $103,000 (2017) $106,090 (2018) $109,272 (2019) $112,550 (2020) $115,927 (2021) $119,405 (2022) $122,987 (2023) $126,677 (2024) $130,477 (2025) Total fees paid, 2016-2025: **$1,146,388**
Permit renewal	$450,000 (expected, 2028)	$450,000 (expected)
Other Facility Permit Costs (outside of BC)	Exshaw (Alberta) – No fee Bath (Ontario) – No fee St. Constant (Quebec) - $153,000 Brookfield (Nova Scotia) - $8,791 *No permit renewal fees for any of the above plants	Edmonton (Alberta) - $30,000 Picton (Ontario) - $18,000
Additional information	Amrize has informed MVRD that if the air modelling shows	

	we cannot meet the ambient air quality standards for NOx, we will commit to the installation of SNCR. This is likely a $3-5M spend for the facility, along with operating costs (likely $100-200k annually).	

Therefore, we request that the following changes be made before the proposed amendments move forward:

1. **Eliminate the application fee to preserve competitiveness and attractiveness for foreign direct investment within the region.** Given that Metro Vancouver is unique in requiring both an annual emissions fee, a provincial industrial carbon price and a significant permitting fee, capping the limit at a meaningfully lower level would be better aligned with the region's goals to attract and preserve building materials manufacturing activity.

2. **Increase transparency regarding the use of annual emissions fees,** including how they relate to cost-recovery and contribute to abating emissions.

3. **Ensure fairness and transparency with respect to establishing term lengths for permits.** The CAC understands that Metro Vancouver began establishing expiry dates for permits over the last decade, and that decisions on term lengths for permits are made on a case-by-case basis. This could lead to unfairness and uncertainty for large plants, further damaging the investment environment in the region.

Against the backdrop of increasing instability impacting global supply and demand and rising competition from peer jurisdictions for foreign direct investment, it is critical to ensure that Metro Vancouver remains an attractive and viable destination for modernization and investment throughout the materials sector.

We appreciate the time you have taken to consult with us and for the opportunity for us to provide our feedback. We are available to discuss our recommendations further: please contact Adam Auer, President and CEO of the CAC at aauer@cement.ca or 613-236-9471 Ext. 3.

Sincerely,

Adam Auer
President & CEO,
Cement Association of Canada

CC:

Hon. Ravi Kahlon
Minister of Jobs and Economic Growth
PO Box 9071 Stn Prov Govt
Victoria BC
V8W 9E2

Hon. Tamara Davidson
Minister of Environment and Parks
PO Box 9047 Stn Prov Govt
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Cement Association of Canada

January 8, 2026

Dear Members of the Air Quality and Climate Committee,

On behalf of the Cement Association of Canada (CAC), I am writing to you today to provide additional comments following our earlier letter in October 2025 regarding the proposed amendments to the Metro Vancouver Regional District (MVRD)'s Air Quality Management Fees Regulation Bylaw No. 1330, 2021.

The CAC is the leading voice of Canada's cement industry, whose six member companies produce the cement, concrete and aggregates needed to build vital housing and infrastructure and create economic growth in communities across the country, including Metro Vancouver and B.C.

B.C. has two cement plants, both located in the Metro Vancouver region, the Amrize (formerly Lafarge) facility in Richmond and the Heidelberg Materials facility in Delta. B.C.'s cement and concrete industry support more than 7,500 direct and indirect full-time jobs, contributing more than $700M annually to the economy through wages and salaries – with many of these benefits realized in Metro Vancouver. Approximately 90 per cent of the jobs in B.C.s cement and concrete industry are full time high-paying jobs, with hourly wages that exceed the total industry national average by 30 per cent.

Like energy, cement and concrete are strategic commodities upon which B.C.'s economy depends. Against the backdrop of increasing instability impacting global supply and demand and rising competition from peer jurisdictions for foreign direct investment, it is critical to ensure that Metro Vancouver remains an attractive and viable destination for modernization and investment throughout the materials sector.

In our earlier correspondence, we expressed our concerns that the proposed amendments related to permit fees would levy unjustified and onerous costs to cement plants. At the time, the proposed regulations from the MVRD would have set a $450,000 application fee limit cap, far surpassing comparator jurisdictions across North America, and raising serious issues regarding the ongoing competitiveness of British Columbia's cement manufacturing sector.

We are pleased to update that following engagement with several members of this committee, members of the MVRD's Air Quality and Climate Action Services department, and with various officials within the Government of British Columbia, the Cement Association of Canada and our members have been made aware of updates to the original proposed regulations.

We understand that under the updated proposed amendments that your committee is considering, adjustments to permit applications from a facility with an expiring permit would be **capped at $125,000**, significantly decreased from the earlier proposal of $450,000.

As a result, the **Cement Association of Canada and our members are supportive of the updated proposed amendments to the Metro Vancouver Regional District (MVRD)'s Air Quality Management Fees Regulation Bylaw No. 1330, 2021**.

We appreciate the quick and thoughtful engagement of members of this committee, as well as with the MVRD to ensure that the proposal protects important domestic manufacturing.

We are available to discuss further should you have any questions: please contact me, Sarah Petrevan, Vice President of Industrial Decarbonization and Sustainability for the CAC at spetrevan@cement.ca or 613-236-9471 Ext. 7.

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Sincerely,

Sarah Petrevan
Vice President, Industrial Decarbonization and Sustainability
Cement Association of Canada

METRO VANCOUVER REGIONAL DISTRICT
BYLAW NO. 1330, 2021
A Bylaw to Regulate Air Quality Management Fees

WHEREAS:

A. Metro Vancouver Regional District has enacted the "*Greater Vancouver Regional District Air Quality Management Bylaw No. 1082, 2008*"; and

B. That Bylaw contemplates the establishment and payment of fees.

NOW THEREFORE the Board of the Metro Vancouver Regional District enacts as follows:

Citation

1. The official citation of this bylaw is *"Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021".* This bylaw may be cited as "Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw" (in this Bylaw, "this Regulation").

Schedules

2. The following Schedules are attached to and form part of this Regulation:

Schedule "A-1", Calculation of Air Contaminant Emission Fees until December 31, 2021;
Schedule "A-2", Calculation of Air Contaminant Emission Fees from January 1, 2022 to December 31, 2022;
Schedule "A-3", Calculation of Air Contaminant Emission Fees from January 1, 2023 to December 31, 2023;
Schedule "A-4", Calculation of Air Contaminant Emission Fees from January 1, 2024 to December 31, 2024;
Schedule "A-5", Calculation of Air Contaminant Emission Fees from January 1, 2025 to December 31, 2025;
Schedule "A-6", Calculation of Air Contaminant Emission Fees from January 1, 2026 to December 31, 2026;
Schedule "A-7", Calculation of Air Contaminant Emission Fees from January 1, 2027 to December 31, 2027;
Schedule "A-8", Calculation of Air Contaminant Emission Fees ~~for~~from January 1, 2028 ~~and later; and~~to December 31, 2028;
Schedule "A-9", Calculation of Air Contaminant Emission Fees from January 1, 2029 to December 31, 2029;
Schedule "A-10", Calculation of Air Contaminant Emission Fees for January 1, 2030 and later;
Schedule "B", Calculation of Air Contaminant Emission Fees for Odorous Air ~~Contaminant Emission Fees.~~ Contaminants; and
Schedule "C", List of Hazardous Air Pollutants.

General

3. This Regulation is deemed to be an integral part of the Greater Vancouver Regional District Air Quality Management Bylaw No. 1082, 2008 ("the Bylaw").

4. Terms defined in the Bylaw, or incorporated by reference into the Bylaw, have the same meaning in this Regulation.

Definitions

5. In this Regulation:

~~"~~**"administrative amendment**~~"~~**"** means an amendment to a permit or approval for any of the following purposes:

(a) a change of ownership or name; or

(b) a change of legal address or mailing address;

"authorized discharge" means:

(a) the quantity of an air contaminant that is authorized by permit, approval, or emission regulation; or

(b) if the quantity of an air contaminant in the discharge is not specified in a permit, approval, or emission regulation, the quantity of the air contaminant that is:

i. determined from discharge factors applied in accordance with procedures approved by the district director; or

ii. measured, in accordance with procedures approved by the district director;

"billion cubic metre odour ~~units~~unit" means ~~the volume of an odorous air contaminant discharge such that the product of the odour concentration, in odour units, and the volume of the discharge, in cubic metres, is equivalent to~~ a volume of one billion cubic metres of gas ~~with~~having an ~~odorous substance~~odour concentration of one odour unit per cubic metre of gas;

~~"~~**"coarse particulate matter"** means particulate matter with an aerodynamic diameter greater than 2.5 micrometres, excluding diesel particulate matter and metals;

"coarse particulate matter containing soy dust" means coarse particulate matter containing soy;

"diesel particulate matter" means particulate matter that is ~~emitted~~discharged from the combustion of diesel fuel or an alternative diesel fuel;

"District" means the Metro Vancouver Regional District;

"European Reference Odour Mass" means a conventional quantity value for an odour unit, equal to a defined mass of a reference substance having known odorous properties, as referenced and used in the European Standard EN 13725:2022 ("Stationary source emissions - Determination of odour concentration by dynamic olfactometry and odour emission rate");

"farm business" has the same meaning as in section 1 of the *Farm Practices Protection (Right to Farm) Act*, RSBC 1996, c. 13;

"farm operation" has the same meaning as in section 1 of the *Farm Practices Protection (Right to Farm) Act*;

"fine particulate matter" means particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometres, excluding diesel particulate matter and metals;

Replaced by Bylaw 1373, 2023

"global warming potential" means the 100-year global warming potential of a greenhouse gas, as listed in the most recent Working Group 1 Contribution (The Physical Science Basis) to the most recent Assessment Report of the Intergovernmental Panel on Climate Change, all as corrected from time to time;

"greenhouse gases" means gases that have a global warming potential, and includes carbon dioxide, methane, and other greenhouse gases;

"hazardous air pollutants" means ~~air contaminants that:~~ substances introduced into the air that cause or may cause cancer, birth defects, or other major health impacts to humans or any life form, and are listed in Schedule C;

~~(a) meet the definition of toxic under the *Canadian Environmental Protection Act, 1999* (Canada) and listed in Schedule 1 of that Act (List of Toxic Substances) as amended from time to time, but not including greenhouse gases, ozone, respirable particulate matter less than or equal to 10 microns and air contaminants that are precursors to particulate matter formation (nitrogen oxides, sulphur dioxide, volatile organic compounds and ammonia); or~~

~~(b) are included in the United States *Clean Air Act*, United States Code Title 42, c. 85 § 2011 7412(b) (1) (List of Hazardous Air Pollutants), as amended from time to time; or~~

~~(c) as determined by the district director;~~

~~"~~**"metals"** means metals that are not hazardous air pollutants~~, including aluminum, antimony, barium, boron, copper, iron, manganese, molybdenum, nickel, silver, tin, and zinc~~;

"minor amendment" means an amendment to a permit or approval for any of the following purposes:

(a) a decrease in the authorized quantity of the discharge, emission or stored material;
(b) an increase in the authorized quantity of the discharge, emission or stored material that does not exceed 10% of the authorized quantity;
(c) a change in the authorized quality of the discharge, emission or stored material such that, in the opinion of the district director, the change has or will have ~~less~~an equal or lesser impact on the environment;
(d) a change in a monitoring program; or
(e) a change to the works, method of treatment or any other condition of a permit or approval such that, in the opinion of the district director, the change has or will have ~~less~~an equal or lesser impact on the environment~~;~~ .

Replaced by Bylaw 1373, 2023

"non-photoreactive volatile organic compounds" means any volatile organic compounds~~:~~

~~(a)~~ , except methane, listed as exclusions under "Volatile organic compounds that participate in atmospheric photochemical reactions" in Schedule 1 (List of Toxic Substances, Part 2) of the *Canadian Environmental Protection Act, 1999*, S.C. 1999, c. 33, as amended from time to time~~, except methane; or~~ ;

~~(b) as determined by the district director;~~

"odorous air ~~contaminants"~~contaminant" ~~means substances that individually or collectively are air contaminants due to their odorous properties;~~ is a type of air contaminant, and means any substance that is discharged into the air that, due to its odorous properties,

(a) injures or is capable of injuring the health or safety of a person;
(b) injures or is capable of injuring property or any life form;
(c) interferes or is capable of interfering with the normal conduct of business;
(d) causes or is capable of causing material physical discomfort to a person; or
(e) damages or is capable of damaging the environment;

"odorous air contaminant sensitive receptor location" means a residential location, public space or commercial business location such as restaurants and retail operations where owners, operators, or occupants may suffer the impairment of enjoyment of private or public space or business loss due to the presence of odorous air contaminants;

"odour concentration" means the number of odour units in a cubic metre of gas at standard conditions (at a temperature of 293 Kelvin (K) and normal atmospheric pressure of 101.3 kilo Pascals (kPa) on a wet basis), as specified in the European Standard EN 13725:2022 ("Stationary source emissions - Determination of odour concentration by dynamic olfactometry and odour emission rate"), as amended from time to time;

~~**"odour detection threshold"** means the concentration at which an odour panel in accordance with European Standard EN 13725:2003 ("Air quality – determination of odour concentration by dynamic olfactometry"), as amended from time to time, or by a method approved by the district director, can just detect the presence of a substance;~~

"odour unit" means an amount of an odorous air contaminant, or odorous air contaminants, that, when evaporated into one cubic metre of neutral gas at standard conditions (at a temperature of 293 Kelvin (K) and normal atmospheric pressure of 101.3 kilo Pascals (kPa) on a wet basis), elicits a physiological response from a panel that is equivalent to that elicited by one European Reference Odour Mass when evaporated into one cubic metre of neutral gas at standard conditions, all as determined in accordance with European Standard EN 13725:~~2003 ("Air quality – determination of odour concentration by dynamic olfactometry")~~2022 ("Stationary source emissions - Determination of odour concentration by dynamic olfactometry and odour emission rate"), as amended from time to time~~, or as otherwise approved by the district director~~;

"**other greenhouse gases**" means greenhouse gases including nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride, but does not include carbon dioxide and methane;

"photoreactive volatile organic compounds" means any volatile organic compounds~~:~~
~~(a)~~
not defined in this Regulation as either hazardous air pollutants or non-photoreactive volatile organic compounds;~~ or~~

~~(b) as determined by the district director;~~

"significant amendment" means an amendment to a permit or approval which is not an administrative amendment or a minor amendment;~~ and~~

~~"~~**"total reduced sulphur (TRS)**~~"~~**"** means ~~total reduced sulphur compounds, including but not limited to hydrogen sulphide, methyl mercaptan, dimethyl sulphide, and dimethyl disulphide.~~one or more substances introduced into the air that contain one or more sulphur atoms in their reduced state; and

"whole emission discharge of odorous air contaminants" means the total discharge of odorous air contaminants from an emission source in one year and is the product of the total odorous air contaminants in the discharge, as measured in accordance with European Standard EN 13725:2022 ("Stationary source emissions - Determination of odour concentration by dynamic olfactometry and odour emission rate"), as amended from time to time, expressed in odour units, multiplied by the total volume of the discharge, expressed in cubic metres.

Payment of Fees

6. Every person who applies for a permit or an approval, or any amendment of a permit or approval, must pay the application fees set out in this Regulation.

7. Every person who discharges air contaminants under an emission regulation, a permit, or an approval must pay the applicable annual or duration fees set out in this Regulation.

8. Emission fees are payable under this Regulation for emission fees related to the discharge of a greenhouse gas, unless the provincial carbon tax applies to the discharge of that greenhouse gas.

Calculation of Air Contaminant Emission Fees

~~9 **"Air contaminant emission fees"** (Z) are the emission fees calculated as per Schedules A-1 to A-8 [*Calculation of Air Contaminant Emission Fees*] and Schedule B [*Calculation of Odorous Air Contaminant Fees*] for the applicable year.~~

9 (a) If an air contaminant is specified in Schedules A-1 to A-10 or Schedule B, the air contaminant emission fee for that air contaminant (or odorous air contaminant) will be calculated using the corresponding emission fee rate, for the applicable year;

9 (b) Despite section 9(a), if a substance meets the definition of more than one air contaminant (or odorous air contaminant) listed in Schedules A-1 to A-10 or listed in Table B-2 of Schedule B, the District will charge only one air contaminant emission fee for the substance, calculated at one emission fee rate that is the highest of the fee rates in Schedules A-1 to A-10 or in Table B-2 of Schedule B that are applicable to the substance, for the applicable year.

~~9.~~9 (c) For greater certainty, section 9(b) does not prohibit the charging of both an air contaminant emission fee for a substance listed in Schedules A-1 to A-10 and an air contaminant emission fee for a whole emission discharge of odorous air contaminants calculated in accordance with sections 3 or 4 of Schedule B, unless that substance is Total Reduced Sulphur (TRS), in which case the air contaminant emission fee for Total Reduced Sulphur (TRS) listed in Schedules A-1 to A-10 will not be charged.

10. "Total emission fees" are calculated as the sum of all air contaminant emission fees applicable for:

(a) annual emissions authorized by a permit or emission regulation; or

(b) the duration of the approval.

Permit and Approval Application Fees

11. The application fee payable to the District for an application:

(a) for a new permit or new approval is $1,000 plus twice the total emission fees payable for the emissions specified in the application, to a maximum of $220,000; and

(b) ~~for~~for a permit or approval authorizing the discharge of air contaminants from a facility or operation that has an expiring permit or expiring approval is $1,000 plus the total emission fees payable for the emissions specified in the application, to a maximum of $110,000.

12. Despite section 11, the application fee payable to the District for an application:

(a) for an open ~~air~~ burning approval associated with a farm operation and conducted on a farm as part of a farm business is $100; and

(b) for all other open ~~air~~ burning approvals is $1,000.

Permit and Approval Amendment Application Fees

13. The application fee payable to the District for an application:

(a) for an administrative amendment is $240;

(b) for a minor amendment is $500 plus twice the increase, if any, in the total emission fees payable for the emissions specified in the application; and

(c) for a significant amendment is $1,000 plus twice the increase in the total emission fees payable for the emissions specified in the application~~.~~, to a maximum of $220,000.

Application Fee Payment

14. An application fee must be paid at the time the application is submitted and is not refundable by reason only that the permit, approval, or amendment application is refused.

Annual Fees

15. A holder of a permit must pay annually the total emission fees plus an administrative fee of $200, within ~~30~~35 days of ~~receipt of an~~ the date the District issued the invoice for the annual fees.

Approval Duration Fees

16. A holder of an approval, other than an open ~~air~~ burning approval, must pay the total emission fees for the period authorized by the approval plus an administrative fee of $200 within ~~30~~35 days of ~~receipt of an~~the date the District issued the invoice for the approval duration fees.

Cancellations and Amendments

17. If a permit or approval is cancelled at the request of the holder of the permit or approval, the holder is required to pay to the District any prorated amount of fees as determined by the District. The District will issue an invoice for any prorated amount of fees due or will refund the amount of any overpayment of the applicable fees. Refunds for less than $100 will not be issued.

18. If a permit or approval is amended, the District will:

(a) issue an invoice for any prorated amount of fees due;

(b) credit the amount of any overpayment against any fees payable in the subsequent year; or

(c) if no fees are payable in the subsequent year, ~~will~~ refund any overpayment to the holder of the permit or approval. Refunds for less than $100 will not be issued.

19. If a permit or approval is amended, the permit or approval holder will pay any amount owing to the District within ~~30~~35 days of ~~receipt of an~~the date the District issued the invoice ~~issued~~ under section 18(a).

Interest Charges

20. Where a person fails or refuses to pay an invoice within 40 days of the date the invoice was issued, the person must pay interest at the rate of 1.25% per month (15% per year) compounded monthly and calculated daily on all amounts overdue, including all overdue interest, from the date the charge was due to the date of payment.

Review of Emission Fee Rates

21. The District will review the emission fee rates in Schedules A-1 to A-10 and in Tables B-1 and B-2 in Schedule B by December 31, 2027 and then at a minimum frequency of once every four years.

Repeal of Bylaw

~~20.~~**22.** "*Greater Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1083, 2008*" as amended, is hereby repealed.

Severability

~~21.~~**23.** If any portion of this Regulation is deemed *ultra vires*, illegal, invalid, or unenforceable in any way in whole or in part by any court of competent jurisdiction, such decision will not be deemed to invalidate or void the remainder of the ~~Bylaw~~Regulation. The parts so held to be *ultra vires*, illegal, invalid, or unenforceable must be deemed not to have been part of this

Regulation from its adoption. The remainder of the Regulation will have the same force and effect as if the parts that have been deemed *ultra vires*, illegal, invalid, or unenforceable had not been included in this Regulation when it was adopted.

Schedule A-1

Schedule A-1: Calculation of Air Contaminant Emission Fees until December 31, 2021

1. Until December 31, 2021, ~~Air~~**air contaminant emission fees** ~~(Z) until December 31, 2021~~ for the discharge of air contaminants listed in Table A-1 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-1, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-1.

Table A-1 – ~~Air Contaminant~~ Emission Fee Rates for ~~Authorized Discharges~~Air Contaminants in 2021

Column 1 (A) **Air Contaminant**	Column 2 (B) **Emission fee rate ($/tonne)**
Particulate Matter (filterable and condensable from solely combustion sources)	$300
Particulate Matter (filterable and condensable from solely non-combustion sources)	$30
Fine Particulate Matter (filterable and condensable from combined combustion and non-combustion sources, not fuelled solely by natural gas and/or propane)	$300
Particulate Matter (all other filterable from combined combustion and non-combustion sources, not fuelled solely by natural gas and/or propane)	$30
Nitrogen Oxides (NOx)	$50
Photoreactive volatile organic compounds	$100
Non-photoreactive volatile organic compounds	$30
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$150
Hazardous Air Pollutants	$1,000
Other (not otherwise specified)	$30

Schedule A-2

Schedule A-2: Calculation of Air Contaminant Emission Fees from January 1, 2022 to December 31, 2022

1. ~~Air contaminant emission fees (Z) from~~From January 1, 2022 to December 31, 2022~~,~~**, air contaminant emission fees** for the discharge of air contaminants listed in Table A-2 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-2, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-2.

Table A-2 – ~~Air Contaminant~~ Emission Fee Rates for ~~Authorized Discharges~~Air Contaminants in 2022

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$39
Coarse Particulate Matter	$31
Coarse Particulate Matter containing soy dust	$51
Diesel Particulate Matter	$964
Fine Particulate Matter	$514
Hazardous Air Pollutants	$1,143
Metals	$183
Methane	$180
Nitrogen Oxides (NOx)	$64
Non-photoreactive volatile organic compounds	$31
Ozone	$63
Photoreactive volatile organic compounds	$123
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$367
Other (not otherwise specified)	$31
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-3

Schedule A-3: Calculation of Air Contaminant Emission Fees from January 1, 2023 to December 31, 2023

1. ~~**Air contaminant emission fees** (Z) from~~From January 1, 2023 to December 31, 2023~~,~~ **, air contaminant emission fees** for the discharge of air contaminants listed in Table A-3 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-3, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-3.

Table A-3 – ~~Air Contaminant~~ Emission Fee Rates for ~~Authorized Discharges~~Air Contaminants in 2023

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/ tonne) (B)**
Ammonia	$47
Coarse Particulate Matter	$33
Coarse Particulate Matter containing soy dust	$73
Diesel Particulate Matter	$1,629
Fine Particulate Matter	$729
Hazardous Air Pollutants	$1,286
Metals	$336
Methane	$341
Nitrogen Oxides (NOx)	$79
Non-photoreactive volatile organic compounds	$33
Ozone	$96
Photoreactive volatile organic compounds	$146
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$583
Other (not otherwise specified)	$33
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-4

Schedule A-4: Calculation of Air Contaminant Emission Fees from January 1, 2024 to December 31, 2024

1. ~~**Air contaminant emission fees** (Z) from~~From January 1, 2024 to December 31, 2024~~,~~ **, air contaminant emission fees** for the discharge of air contaminants listed in Table A-4 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-4, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-4.

Table A-4 – ~~Air Contaminant~~ Emission Fee Rates for ~~Authorized Discharges~~Air Contaminants in 2024

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$56
Coarse Particulate Matter	$34
Coarse Particulate Matter containing soy dust	$94
Diesel Particulate Matter	$2,293
Fine Particulate Matter	$943
Hazardous Air Pollutants	$1,429
Metals	$489
Methane	$497
Nitrogen Oxides (NOx)	$93
Non-photoreactive volatile organic compounds	$34
Ozone	$129
Photoreactive volatile organic compounds	$169
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$800
Other (not otherwise specified)	$34
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-5

Schedule A-5: Calculation of Air Contaminant Emission Fees from January 1, 2025 to December 31, 2025

1. ~~**Air contaminant emission fees** (Z) from~~From January 1, 2025 to December 31, 2025~~,~~ **, air contaminant emission fees** for the discharge of air contaminants listed in Table A-5 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-5, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-5.

Table A-5 – ~~Air Contaminant~~ Emission Fee Rates for ~~Authorized Discharges~~Air Contaminants in 2025

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$64
Coarse Particulate Matter	$36
Coarse Particulate Matter containing soy dust	$116
Diesel Particulate Matter	$2,957
Fine Particulate Matter	$1,157
Hazardous Air Pollutants	$1,571
Metals	$641
Methane	$653
Nitrogen Oxides (NOx)	$107
Non-photoreactive volatile organic compounds	$36
Ozone	$161
Photoreactive volatile organic compounds	$191
Sulphur Oxides (SOx)	$100
Other (not otherwise specified)	$36
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-6

Schedule A-6: Calculation of Air Contaminant Emission Fees from January 1, 2026 to December 31, 2026

Subject to section 2 of Schedule A-6, this Schedule A-6 is retroactive to January 1, 2026, with effect on and after that date.

1. For the period from January 1, 2026 to the date of adoption of *Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026*, the District must not charge an air contaminant emission fee payable under Schedule A-6 that is greater than the amount of the air contaminant emission fee that the District would have calculated for that period under this Schedule A-6 as it read before being amended by *Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026*.

2. For 2026**, air contaminant emission fees** ~~(Z) from January 1, 2026 to December 31, 2026 for~~ for the discharge of air contaminants listed in Table A-6 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-6, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-6.

Table A-6 – ~~Air Contaminant~~ Emission Fee Rates for ~~Authorized Discharges~~Air Contaminants in 2026

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$73
Coarse Particulate Matter	$37
Coarse Particulate Matter containing soy dust	$137
Diesel Particulate Matter	$3,621
Fine Particulate Matter	$1,371
Hazardous Air Pollutants	$1,714
Metals	$794
Methane	$809
Nitrogen Oxides (NOx)	$121
Non-photoreactive volatile organic compounds	$37
Ozone	$194
Photoreactive volatile organic compounds	$214
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$800

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Other (not otherwise specified)	$37
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-7

Schedule A-7: Calculation of Air Contaminant Emission Fees from January 1, 2027 to December 31, 2027

1. ~~**Air contaminant emission fees** (Z) from~~From January 1, 2027 to December 31, 2027~~,~~ **, air contaminant emission fees** for the discharge of air contaminants listed in Table A-7 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-7, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-7.

Table A-7 – ~~Air Contaminant~~ Emission Fee Rates for ~~Authorized Discharges~~Air Contaminants in 2027

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$81
Coarse Particulate Matter	$39
Coarse Particulate Matter containing soy dust	$159
Diesel Particulate Matter	$4,286
Fine Particulate Matter	$1,586
Hazardous Air Pollutants	$1,857
Metals	$947
Methane	$964
Nitrogen Oxides (NOx)	$136
Non-photoreactive volatile organic compounds	$39
Ozone	$227
Photoreactive volatile organic compounds	$237
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$1,325
Other (not otherwise specified)	$39
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-8

Schedule A-8: Calculation of Air Contaminant Emission Fees ~~for~~from January 1, 2028 ~~and later~~to December 31, 2028

1. ~~Air~~ From January 1, 2028 to December 31, 2028, **air contaminant emission fees** ~~(Z)~~ for ~~January 1, 2028 and later for~~the discharge of air contaminants listed in Table A-8 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-8, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-8.

Table A-8 – ~~Air Contaminant~~ Emission Fee Rates for ~~Authorized Discharges~~Air Contaminants in 2028

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$90
Coarse Particulate Matter	$40
Coarse Particulate Matter containing soy dust	$180
Diesel Particulate Matter	$4,950
Fine Particulate Matter	$1,800
Hazardous Air Pollutants	$2,000
Metals	$1,100
Methane	$1,120
Nitrogen Oxides (NOx)	$150
Non-photoreactive volatile organic compounds	$40
Ozone	$260
Photoreactive volatile organic compounds	$260
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$1,850
Other (not otherwise specified)	$40
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-9

Schedule A-9: Calculation of Air Contaminant Emission Fees from January 1, 2029 to December 31, 2029

1. From January 1, 2029 to December 31, 2029, **air contaminant emission fees** for the discharge of air contaminants listed in Table A-9 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,
A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-9, and
B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-9.

Table A-9 – Emission Fee Rates for Air Contaminants in 2029

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$90
Coarse Particulate Matter	$40
Coarse Particulate Matter containing soy dust	$180
Diesel Particulate Matter	$4,950
Fine Particulate Matter	$1,800
Hazardous Air Pollutants	$2,000
Metals	$1,100
Methane	$1,120
Nitrogen Oxides (NOx)	$150
Non-photoreactive volatile organic compounds	$40
Ozone	$260
Photoreactive volatile organic compounds	$260
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$2,375
Other (not otherwise specified)	$40
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule A-10

Schedule A-10: Calculation of Air Contaminant Emission Fees for January 1, 2030 and later

1. From January 1, 2030 and onwards, **air contaminant emission fees** for the discharge of air contaminants listed in Table A-10 are calculated as follows:

$$Z = A \times B$$

where,

Z is the air contaminant emission fee,

A is the authorized discharge in tonnes of an air contaminant listed in column 1 of Table A-10, and

B is the corresponding emission fee rate for that air contaminant listed in column 2 of Table A-10.

Table A-10 – Emission Fee Rates for Air Contaminants in 2030 and later

Column 1 **Air Contaminant (A)**	Column 2 **Emission fee rate ($/tonne) (B)**
Ammonia	$90
Coarse Particulate Matter	$40
Coarse Particulate Matter containing soy dust	$180
Diesel Particulate Matter	$4,950
Fine Particulate Matter	$1,800
Hazardous Air Pollutants	$2,000
Metals	$1,100
Methane	$1,120
Nitrogen Oxides (NOx)	$150
Non-photoreactive volatile organic compounds	$40
Ozone	$260
Photoreactive volatile organic compounds	$260
Sulphur Oxides (SOx)	$100
Total Reduced Sulphur (TRS)	$2,900
Other (not otherwise specified)	$40
Other greenhouse gases	Fee per tonne ($) = provincial carbon tax value of carbon dioxide ($ / tonne) multiplied by the global warming potential of the other greenhouse gas, divided by the global warming potential of carbon dioxide

Schedule B

Schedule B: Calculation of Odorous Air Contaminant Emission Fees

1. The emission fee for odorous air contaminants is either a fee for:
   (a) The whole emission discharge of odorous air contaminants, as described in section 2 of this Schedule; or
   (b) The sum of all emission fees for specified odorous air contaminants, as described in section 3 of this Schedule.

Whole emission discharge

2. The emission fee for a whole emission discharge of odorous air contaminants is the concentration of total odorous air contaminants in the emission, as measured through dynamic olfactometry, expressed in odour units, multiplied by the total volume of authorized air contaminant emissions, expressed in cubic metres, and:
   (a) From January 1, 2022 to December 31, 2024:
      (i) Where there is an odour unit emission limit in a permit or approval, the fee is calculated at $50 per billion cubic metre odour unit, as follows:
         Fee ($) = [$50 x (total annual authorized volume in m^3) x (odour unit emission limit)] / billion cubic metre odour units;
      or
      (ii) Where there is no odour unit emission limit in a permit or approval, the fee is calculated at $200 per billion cubic metre odour unit, as follows;
         Fee ($) = [$200 x (total annual authorized volume in m^3) x (odour units measured)] / billion cubic metre odour units;
      and
   (b) From January 1, 2025 and later:
      (i) Where there is an odour unit emission limit in a permit or approval, the fee is calculated at $60 per billion cubic metre odour unit, as follows:
         Fee ($) = [$60 x (total annual authorized volume in m^3) x (odour unit emission limit)] / billion cubic metre odour units;
      or
      (ii) Where there is no odour unit emission limit in a permit or approval, the fee is calculated at $240 per billion cubic metre odour unit, as follows:
         Fee ($) = [$240 x (total annual authorized volume in m^3) x (odour units measured)] / billion cubic metre odour units.

Specified odorous air contaminants

3. The emission fee for specified odorous air contaminants is the sum of the fees for those specified odorous air contaminants, as set out in sections 4 and 5 of this Schedule. The emission fee for a specified odorous air contaminant is based on the odour detection threshold of the specified odorous air contaminant.

4. Where an odorous air contaminant is set out in Column 1 of Table 9:
   (a) From January 1, 2022 to December 31, 2024, the fee for that odorous air contaminant (Z) is either
      (i) The fee for the permitted level of that odorous air contaminant as set out in a permit or approval, calculated as:

$$Z = A \times B$$

      where,
         A is the permitted level in kilograms of that air contaminant listed in column 1 of Table 9, and
         B is the corresponding fee rate per kilogram of that air contaminant listed in column 2 of Table 9;

      or

      (ii) The fee for the measured level of that odorous air contaminant, calculated as:

$$Z = C \times D$$

      where,
         C is the measured level in kilograms of that air contaminant listed in column 1 of Table 9, and
         D is the corresponding fee rate per kilogram of that air contaminant listed in column 3 of Table 9;
      and

   (b) From January 1, 2025 and later, the fee for that odorous air contaminant is either:
      (i) The fee for the permitted level of that odorous air contaminant as set out in a permit or approval, calculated as:

$$Z = A \times B$$

      where,
         A is the permitted level in kilograms of that air contaminant listed in column 1 of Table 9, and
         B is the corresponding fee rate per kilogram of that air contaminant listed in column 4 of Table 9;
      or

      (ii) The fee for the measured level of that odorous air contaminant, calculated as:

$$Z = C \times D$$

      where,
         C is the measured level in kilograms of that air contaminant listed in column 1 of Table 9, and
         D is the corresponding fee rate per kilogram of that air contaminant listed in column 5 of Table 9.

5. Subject to section 6 of this Schedule, where an odorous air contaminant is not set out in Column 1 of Table 9:
   (a) From January 1, 2022 to December 31, 2024, the fee for that odorous air contaminant is either:
      (i) The fee for the described limit of that odorous air contaminant as set out in a permit or approval, calculated as:

~~Fee ($) = $50 / billion cubic metres x [permit or approval concentration limit in mg/m³ / odour detection threshold in mg/m³] x permitted flow rate (billion m³/year or authorized period)~~

~~;~~

~~or~~

~~(ii) For an odorous air contaminant without a described limit in a permit or approval for which monitoring is required, the fee for that odorous air contaminant is calculated as:~~

~~Fee ($) = $200 / billion cubic metres x [measured concentration in mg/m³ / odour detection threshold in mg/m³] x permitted flow rate (billion m³/authorized period); and~~

~~(b) From January 1, 2025 and later, the fee for that odorous air contaminant is either:~~

~~(i) The fee for the described limit of that odorous air contaminant as set out in a permit or approval, calculated as:~~

~~Fee ($) = $60 / billion cubic metres x [permit or approval concentration limit in mg/m³ / odour detection threshold in mg/m³] x permitted flow rate (billion m³/year or authorized period);~~

~~or~~

~~(ii) For an odorous air contaminant without a described limit in a permit or approval for which monitoring is required, the fee for that odorous air contaminant is calculated as:~~

~~Fee ($) = $240 / billion cubic metres x [measured concentration in mg/m³ / odour detection threshold in mg/m³] x permitted flow rate (billion m³/authorized period); and~~

~~in cases of odorous air contaminants where there is a concentration of an odorous air contaminant below the analytical method detection limit, the fee shall be based on 25% of the analytical method detection limit.~~

6. ~~The fee rate for an odorous air contaminant not set out in Column 1 of Table 9 is not to exceed $1,000 per kilogram.~~

~~Fee Reduction~~

7. ~~If the permittee or approval holder is able to demonstrate to the satisfaction of the district director that substantial dilution of the emission occurs before contact with an odorous air contaminant sensitive receptor location, the permittee or approval holder may apply for a reduction in odorous air contaminant emission fees based on the following:~~

   (a) ~~Fees may be reduced by 75% if it can be demonstrated through approved dispersion modelling that one odour unit can be achieved at the nearest odorous air contaminant sensitive receptor location 99.5% of the time based on a ten-minute average of authorized maximum (permitted) emissions, or 99.8% of the time based on measured emissions; and~~

   (b) ~~Fees may be reduced by 50% if it can be demonstrated through approved dispersion modelling that three odour units can be achieved at the nearest odorous air contaminant sensitive~~

~~receptor location 99.5% of the time based on a ten-minute average of authorized maximum (permitted) emissions, or 99.8% of the time for measured emissions~~

Schedule B

Table 9 – Fee Rates for Specified Odorous Air Contaminants, with Permitted or Measured Levels

Column 1 Odorous Air Contaminant	Column 2 Fee rate ($/kg), for permitted levels, from January 1, 2022 to December 31, 2024	Column 3 Fee rate ($/kg), for measured levels, from January 1, 2022 to December 31, 2024	Column 4 Fee rate ($/kg), for permitted levels, from January 1, 2025 and later	Column 5 Fee rate ($/kg), for measured levels, from January 1, 2025 and later
1-nonene	18	72	22	86
1-octene	11	44	13	52
2,3-pentanedione	2.3	9.5	2.8	11.4
2,6-nonadienal	675	1,000	810	1,000
2-chlorophenol	12	51	15	61
2-heptanone (methyl n-amyl ketone)	1.5	6.2	1.8	7.5
2-methyl butanoic acid	6.3	25.3	7.5	30.3
2-methyl-1-propanol (isobutanol)	1.5	6.0	1.8	7.2
2-methylpropionoic acid (isobutyric acid)	9.2	37.0	11.1	44.4
3-methyl butanoic acid (isovaleric acid)	151	606	181	727
3-methylbutanal (isovaleraldehyde)	142	571	171	685
Acetic acid (ethanoic acid)	3.4	13.6	4.0	16.3
Allyl sulphide	49	195	58	234
Butanal	25	100	30	120
Butanoic acid (butyric acid)	73	294	88	352
Butanoic acid, butyl ester (butyl butanoate/butyrate)	1.7	7.1	2.1	8.5
Butyl mercaptan	1,000	1,000	1,000	1,000
Decanal (decaldehyde, capradehyde)	19	76	23	92
Diacetyl	284	1,000	341	1,000
Diallyl disulphide	49	195	58	234
Diethyl disulphide	5.0	20.0	6.0	24.0
Diethyl sulphide	411	1,000	493	1,000
Dimethyl disulphide	5.8	23.5	7.0	28.2
Dimethyl sulphide	6.5	26.3	7.8	31.5
Dimethyl trisulphide	5.7	22.9	6.8	27.5
Ethyl isobutyrate	479	1,000	575	1,000
Ethyl isovalerate	723	1,000	868	1,000
Ethyl mercaptan (ethanethiol)	1,000	1,000	1,000	1,000
Ethyl n-butyrate	263	1,000	316	1,000
Ethyl n-valerate	85	342	103	410

Column 1 Odorous Air Contaminant	Column 2 Fee rate ($/kg), for permitted levels, from January 1, 2022 to December 31, 2024	Column 3 Fee rate ($/kg), for measured levels, from January 1, 2022 to December 31, 2024	Column 4 Fee rate ($/kg), for permitted levels, from January 1, 2025 and later	Column 5 Fee rate ($/kg), for measured levels, from January 1, 2025 and later
Ethyl propionate	1.7	6.8	2.1	8.2
Hexanal (hexaldehyde)	45	181	54	218
Hexanoic acid (caproic acid)	17	71	21	85
Hydrogen sulphide	87	350	105	421
Isoamyl mercaptan	1,000	1,000	1,000	1,000
Isobutyl acetate	1.3	5.3	1.6	6.3
Isobutyl acrylate	11	42	13	51
Isobutyl amine	113	454	136	545
Isobutyl isovalerate	1.5	6.0	1.8	7.1
Isobutyl mercaptan	1,000	1,000	1,000	1,000
Isobutyl n-butyrate	5.3	21.2	6.4	25.5
Isohexanoic acid	26	105	32	126
Isooctanol	1.0	4.0	1.2	4.9
Isopentanol	8.2	32.7	9.8	39.2
Isopropyl mercaptan	1,000	1,000	1,000	1,000
Isopropyl n-butyrate	2.2	9.0	2.7	10.8
Isopropyl propionate	2.6	10.3	3.1	12.3
Isopropylbenzene	1.2	4.9	1.5	5.8
Isobutylaldehyde	49	194	58	233
Methacrolein	2.1	8.2	2.5	9.9
Methyl acrylate	4.1	16.2	4.9	19.5
Methyl allyl sulphide	99	397	119	476
Methyl isoamyl ketone	5.1	20.4	6.1	24.5
Methyl isobutyrate	6.3	25.2	7.6	30.2
Methyl isovalerate	4.8	19.1	5.7	23.0
Methyl mercaptan (methanethiol)	364	1,000	437	1,000
Methyl n-butyrate	17	67	20	81
Methyl n-valerate	4.8	19.1	5.7	23.0
Methylamine	1.8	7.4	2.2	8.8
n-Amyl mercaptan	1,000	1,000	1,000	1,000
n-Butyl acrylate	17	69	21	83
n-Butyl n-butyrate	1.8	7.1	2.1	8.5
n-Butylaldehyde	25	101	30	122

Column 1 Odorous Air Contaminant	Column 2 Fee rate ($/kg), for permitted levels, from January 1, 2022 to December 31, 2024	Column 3 Fee rate ($/kg), for measured levels, from January 1, 2022 to December 31, 2024	Column 4 Fee rate ($/kg), for permitted levels, from January 1, 2025 and later	Column 5 Fee rate ($/kg), for measured levels, from January 1, 2025 and later
n-Butylbenzene	1.1	4.3	1.3	5.2
n-Decanol	10	40	12	48
n-Decylaldehyde	20	78	23	94
n-Heptanol	2.2	8.7	2.6	10.5
n-Heptylaldehyde	59	238	71	285
n-Hexanol	2.0	8.0	2.4	9.6
n-Hexyl acetate	4.7	18.8	5.7	22.6
n-Hexyl mercaptan	690	1,000	827	1,000
n-Hexylaldehyde	44	174	52	209
n-Nonanol	9.4	37.7	11.3	45.2
n-Nonylaldehyde	25	101	30	121
n-Octylaldehyde	954	1,000	1,000	1,000
Nonanoic acid	3.8	15.3	4.6	18.4
n-propyl isobutyrate	5.3	21.0	6.3	25.2
n-propyl isovalerate	151	606	182	727
n-propyl n-valerate	2.6	10.3	3.1	12.3
Octanal	1,000	1,000	1,000	1,000
p-Diethylbenzene	23	93	28	112
Pentanal (valeraldehyde)	35	142	42	171
Pentanoic acid (valeric acid)	333	1,000	400	1,000
p-Ethyltoluene	1.2	4.9	1.5	5.9
Propanal (propionaldehyde)	20	83	25	100
Propionic acid	2.9	11.6	3.5	13.9
Propyl mercaptan (propanethiol)	1,000	1,000	1,000	1,000
Propylbenzene	2.6	10.5	3.1	12.6
Pyridine	119	476	143	571
Sec-butyl mercaptan	452	1,000	542	1,000
Sec-butyl acetate	4.4	17.5	5.3	21.0
Tert-butyl mercaptan	467	1,000	561	1,000
Tetrahydrothiophene	22	90	27	107
Thiophene	26	105	31	126
Trimethylamine	89	357	107	428
Undecanal	2.7	11.1	3.3	13.3

Schedule B: Calculation of Air Contaminant Emission Fees for Odorous Air Contaminants

1. Subject to section 2 of Schedule B, this Schedule B is retroactive to January 1, 2026, with effect on and after that date.

2. For the period from January 1, 2026 to the date of adoption of *Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026*, the District must not charge an air contaminant emission fee payable in respect of the discharge of odorous air contaminants from an emission source that is greater than the amount of the air contaminant emission fee payable in respect of the discharge of odorous air contaminants from that emission source that the District would have calculated for that period under Schedule B as it read before being amended by *Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026*.

Whole emission discharge of odorous air contaminants

3. Where an emission source in a permit or approval has an odour unit emission limit, then the air contaminant emission fee payable in respect of the discharge of odorous air contaminants from that emission source is calculated upon the whole emission discharge of odorous air contaminants from that emission source, as follows:

   Air contaminant emission fee ($) = (Emission fee rate for applicable year in columns 2 to 6 of Table B-1 in $ per billion cubic metre odour units) x (total annual authorized volume of discharge in cubic metres) x (emission limit in permit for the odour unit discharge) x 10^{-9} (to convert billion cubic metres to cubic metres);

4. Where sections 3 and 5 of this Schedule do not apply, and a permit or approval requires measurement of odour units for an emission source, then the air contaminant emission fee payable in respect of the discharge of odorous air contaminants from that emission source is calculated upon the whole emission discharge of odorous air contaminants from that source, as follows:

   Air contaminant emission fee ($) = (Emission fee rate for applicable year in columns 2 to 6 of Table B-1 in $ per billion cubic metre odour units) x (total annual authorized volume of discharge in cubic metres) x (odour units measured) x 10^{-9} (to convert billion cubic metres to cubic metres);

Specified odorous air contaminants

5. Where an emission source in a permit or approval does not have an odour unit emission limit, but it does have emission limits for one or more odorous air contaminants listed in column 1 of Table B-2, then the air contaminant emission fee payable in respect of the discharge of each of the specified odorous air contaminants from that emission source is calculated as follows:

Air contaminant emission fee for each specified odorous air contaminant ($) = [(emission fee rate for that specified odorous air contaminant in $/kg for applicable year listed in columns 2 to 6 in Table B-2) x (total annual authorized volume of discharge in cubic metres) x (emission limit in permit for that specified odorous air contaminant in mg/m^3) / 1,000,000 mg/kg];

6. Where sections 3, 4, and 5 of this Schedule do not apply, and a permit or approval requires measurement of one or more specified odorous air contaminants listed in column 1 of Table B-2 for an emission source, then the air contaminant emission fee payable in respect of the discharge of each of the specified odorous air contaminants is calculated as follows:

   Air contaminant emission fee for each specified odorous air contaminant ($) = [(emission fee rate for that specified odorous air contaminant in $/kg for applicable year listed in columns 2 to 6 in Table B-2) x (total annual authorized volume of discharge in cubic metres) x (measured concentration of that specified odorous air contaminant in mg/m^3) / 1,000,000 mg/kg];

   For clarity, measured values are used to determine air contaminant emission fees if the measured values are at or above the analytical method detection limit.

Fee Reduction

7. Where air contaminant emission fees for odorous air contaminants are calculated based on sections 3 or 4 of this Schedule B for whole emission discharge of odorous air contaminants, the permittee or approval holder may apply for a reduction in air contaminant emission fees for odorous air contaminants, as follows:

(a) Air contaminant emission fees for odorous air contaminants may be reduced by 75% if the permittee or approval holder demonstrates to the satisfaction of the district director through approved dispersion modelling that odorous air contaminants will not exceed one odour unit at the nearest odorous air contaminant sensitive receptor location 99.5% of the time based on a ten-minute average of authorized maximum (permitted) emissions, or 99.8% of the time based on measured emissions; and

(b) If conditions of section 7(a) of this Schedule B cannot be met, air contaminant emission fees for odorous air contaminants may be reduced by 50% if the permittee or approval holder demonstrates to the satisfaction of the district director through approved dispersion modelling that odorous air contaminants will not exceed three odour units at the nearest odorous air contaminant sensitive receptor location 99.5% of the time based on a ten-minute average of authorized maximum (permitted) emissions, or 99.8% of the time for measured emissions.

Table B-1 – Emission Fee Rates for Whole Emission Discharge of Odorous Air Contaminants

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
	Emission fee rate from January 1, 2026 to December 31, 2026	Emission fee rate from January 1, 2027 to December 31, 2027	Emission fee rate from January 1, 2028 to December 31, 2028	Emission fee rate from January 1, 2029 to December 31, 2029	Emission fee rate for January 1, 2030 and later
Emission fee rate ($ per billion cubic metre odour unit)	5	8.75	12.5	16.25	20

Table B-2 – Emission Fee Rates for Specified Odorous Air Contaminants

Column 1 **Odorous Air Contaminant**	Column 2 **Emission fee rate ($/kg), from January 1, 2026 to December 31, 2026**	Column 3 **Emission fee rate ($/kg), January 1, 2027 to December 31, 2027**	Column 4 **Emission fee rate ($/kg), from January 1, 2028 to December 31, 2028**	Column 5 **Emission fee rate ($/kg) from January 1, 2029 to December 31, 2029**	Column 6 **Emission fee rate ($/kg) for January 1, 2030 and later**
1-nonene	0.218	0.362	0.507	0.651	0.795
1-octene	0.249	0.414	0.579	0.744	0.909
2,3-pentanedione	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
2-chlorophenol	0.293	0.487	0.681	0.876	1.070
2-heptanone (methyl n-amyl ketone)	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
2-methyl butanoic acid	0.214 [a]	0.241	0.336	0.432	0.528
2-methyl-1-propanol (isobutanol)	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
2-methylpropionoic acid (isobutyric acid)	0.214 [a]	0.352	0.492	0.632	0.772
3-methyl butanoic acid (isovaleric acid)	3.508	5.832	8.155	10.479	12.803
3-methylbutanal (isovaleraldehyde)	3.244	5.393	7.543	9.692	11.841
Acetic acid (ethanoic acid)	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.283
Butanal	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
Butanoic acid (butyric acid)	1.669	2.775	3.881	4.987	6.093
Butyl mercaptan	10.000	35.000	35.000	35.000	35.000
Decanal (decaldehyde, capradehyde)	0.214 [a]	0.322	0.450	0.579	0.707
Diacetyl	6.491	10.792	15.093	19.393	23.694
Diethyl disulphide	0.800 [b]	1.325 [b]	1.850 [b]	2.375 [b]	2.900 [b]
Diethyl sulphide	9.389	15.610	21.831	28.051	34.272
Dimethyl disulphide	0.800 [b]	1.325 [b]	1.850 [b]	2.375 [b]	2.900 [b]
Dimethyl sulphide	0.800 [b]	1.325 [b]	1.850 [b]	2.375 [b]	2.900 [b]
Ethyl isovalerate	10.000	30.766	35.000	35.000	35.000
Ethyl mercaptan (ethanethiol)	10.000	35.000	35.000	35.000	35.000
Hexanal (hexaldehyde)	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]

Column 1 **Odorous Air Contaminant**	Column 2 **Emission fee rate ($/kg), from January 1, 2026 to December 31, 2026**	Column 3 **Emission fee rate ($/kg), January 1, 2027 to December 31, 2027**	Column 4 **Emission fee rate ($/kg), from January 1, 2028 to December 31, 2028**	Column 5 **Emission fee rate ($/kg) from January 1, 2029 to December 31, 2029**	Column 6 **Emission fee rate ($/kg) for January 1, 2030 and later**
Hexanoic acid (caproic acid)	0.401	0.667	0.932	1.198	1.464
Hydrogen sulphide	2.000	3.325	4.650	5.975	7.300
Isobutyl acetate	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
Isobutyl acrylate	0.246	0.409	0.572	0.735	0.898
Isobutyl mercaptan	10.000	35.000	35.000	35.000	35.000
Isohexanoic acid	0.601	1.000	1.398	1.797	2.195
Isopentanol	0.214 [a]	0.310	0.434	0.557	0.681
Isopropyl mercaptan	10.000	35.000	35.000	35.000	35.000
Isopropylbenzene	1.714 [c]	1.857 [c]	2.000 [c]	2.000 [c]	2.000 [c]
Methacrolein	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
Methyl acrylate	0.214 [a]	0.237 [a]	0.260 [a]	0.277	0.339
Methyl isoamyl ketone	0.214 [a]	0.237 [a]	0.309	0.397	0.485
Methyl isovalerate	0.214 [a]	0.237 [a]	0.260 [a]	0.327	0.399
Methyl mercaptan (methanethiol)	8.300	13.799	19.297	24.796	30.294
Methylamine	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
n-Amyl mercaptan	10.000	35.000	35.000	35.000	35.000
n-Butyl acrylate	0.437	0.727	1.017	1.307	1.597
n-Butylaldehyde	0.578	0.962	1.345	1.728	2.111
n-Butylbenzene	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
n-Decylaldehyde	0.436	0.725	1.014	1.302	1.591
n-Heptylaldehyde	1.336	2.221	3.107	3.992	4.877
n-Hexanol	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
n-Hexyl acetate	0.214 [a]	0.237 [a]	0.277	0.356	0.435
n-Hexylaldehyde	0.996	1.656	2.316	2.976	3.636
n-Nonylaldehyde	0.578	0.961	1.343	1.726	2.109
n-Octylaldehyde	10.000	35.000	35.000	35.000	35.000
Nonanoic acid	0.214 [a]	0.237 [a]	0.260 [a]	0.263	0.321
Octanal	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.295
p-Diethylbenzene	0.675	1.122	1.569	2.016	2.464
Pentanal (valeraldehyde)	0.791	1.315	1.840	2.364	2.888

Column 1 **Odorous Air Contaminant**	Column 2 **Emission fee rate ($/kg), from January 1, 2026 to December 31, 2026**	Column 3 **Emission fee rate ($/kg), January 1, 2027 to December 31, 2027**	Column 4 **Emission fee rate ($/kg), from January 1, 2028 to December 31, 2028**	Column 5 **Emission fee rate ($/kg) from January 1, 2029 to December 31, 2029**	Column 6 **Emission fee rate ($/kg) for January 1, 2030 and later**
Pentanoic acid (valeric acid)	7.395	12.294	17.192	22.091	26.990
p-Ethyltoluene	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
Propanal (propionaldehyde)	1.714 [c]	1.857 [c]	2.000 [c]	2.000 [c]	2.000 [c]
Propionic acid	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
Propyl mercaptan (propanethiol)	10.000	35.000	35.000	35.000	35.000
Propylbenzene	0.214 [a]	0.237 [a]	0.260 [a]	0.28	0.34
Pyridine	0.214 [a]	0.237 [a]	0.260 [a]	0.260 [a]	0.260 [a]
Sec-butyl mercaptan	10.00	20.33	28.43	35.00	35.00
Sec-butyl acetate	0.214 [a]	0.237 [a]	0.260 [a]	0.299	0.366
Tert-butyl mercaptan	10.000	17.763	24.842	31.920	35.000
Tetrahydrothiophene	0.800 [b]	1.325 [b]	1.850 [b]	2.375 [b]	2.900 [b]
Thiophene	0.593	0.986	1.379	1.772	2.165
Trimethylamine	10.000	24.562	34.350	35.000	35.000
Undecanal	0.214 [a]	0.237 [a]	0.260 [a]	0.285	0.348

a – Emission fee rate for photoreactive volatile organic compounds will be charged, since that emission fee rate is the highest applicable emission fee rate for the applicable year.

b- Emission fee rate for total reduced sulphur (TRS) will be charged, since that emission fee rate is the highest applicable emission fee rate for the applicable year.

c – Emission fee rate for hazardous air pollutants will be charged, since that emission fee rate is the highest applicable emission fee rate for the applicable year.

Schedule C

Schedule C: List of Hazardous Air Pollutants

Chemical Abstracts Service Number (CAS)	Substance Name
79-34-5	1,1,2,2-Tetrachloroethane
79-00-5	1,1,2-Trichloroethane
57-14-7	1,1-Dimethyl hydrazine
120-82-1	1,2,4-Trichlorobenzene
96-12-8	1,2-Dibromo-3-chloropropane
107-06-2	1,2-Dichloroethane
122-66-7	1,2-Diphenylhydrazine
106-88-7	1,2-Epoxybutane (Ethyloxirane)
75-55-8	1,2-Propylenimine (2-Methyl aziridine)
106-99-0	1,3-Butadiene
78-79-5	1,3-Butadiene, 2-methyl- (C_5H_8)
542-75-6	1,3-Dichloropropene
1120-71-4	1,3-Propane sultone (1,2-Oxathiolane, 2,2-dioxide)
106-46-7	1,4-Dichlorobenzene(p)
123-91-1	1,4-Dioxane (1,4-Diethyleneoxide)
106-94-5	1-Bromopropane
1589-47-5	1-Propanol, 2-methoxy- ($C_4H_{10}O_2$)
540-84-1	2,2,4-Trimethylpentane
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin
95-95-4	2,4,5-Trichlorophenol
88-06-2	2,4,6-Trichlorophenol
94-75-7	2,4-D, salts and esters
51-28-5	2,4-Dinitrophenol
121-14-2	2,4-Dinitrotoluene
95-80-7	2,4-Toluene diamine (1,3-Benzenediamine, 4-methyl-)
584-84-9	2,4-Toluene diisocyanate (Benzene, 2,4-diisocyanato-1-methyl-)
53-96-3	2-Acetylaminofluorene
96-29-7	2-Butanone, oxime (C_4H_9NO)
111-76-2	2-Butoxyethanol ($C_6H_{14}O_2$)
532-27-4	2-Chloroacetophenone
109-86-4	2-Methoxyethanol ($C_3H_8O_2$)
6407-78-9	2-Naphthalenol, 1-[(4-methyl-2-nitrophenyl)azo]- ($C_{17}H_{13}N_3O_3$)
85-86-9	2-Naphthalenol, 1-[[4-(phenylazo)phenyl]azo]- ($C_{22}H_{16}N_4O$)
79-46-9	2-Nitropropane
464178-90-3	2-propen-1-ol, reaction products with pentafluoroiodoethane tetrafluoroethylene telomer, dehydroiodinated, reaction products with epichlorohydrin and triethylenetetramine

Chemical Abstracts Service Number (CAS)	Substance Name
459415-06-6	2-propenoic acid, 2-methyl-, 2-methylpropyl ester, polymer with butyl 2-propenoateand 2,5 furandione, gamma-omega-perfluoro-C8-14-alkyl esters, tert-Bu benzenecarboperoxoate-initiated
203743-03-7	2-propenoic acid, 2-methyl-, hexadecyl ester, polymers with 2-hydroxyethyl methacrylate, gamma-omega-perfluoro-C10-16-alkyl acrylate and stearyl methacrylate
91-94-1	3,3-Dichlorobenzidene
119-90-4	3,3-Dimethoxybenzidine
119-93-7	3,3'-Dimethyl benzidine ([1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-)
135158-28-2	(4-Chlorophenyl)cyclopropylmethanone,O-[(4-nitrophenyl)methyl]oxime ($C_{17}H_{15}ClN_2O_3$)
101-14-4	4,4-Methylene bis(2-chloroaniline); (Benzenamine, 4,4'-methylenebis[2-chloro-)
101-77-9	4,4'-Methylenedianiline
534-52-1	4,6-Dinitro-o-cresol, and salts (Phenol, 2-methyl-4,6-dinitro-)
92-67-1	4-Aminobiphenyl
92-93-3	4-Nitrobiphenyl
100-02-7	4-Nitrophenol
75-07-0	Acetaldehyde
60-35-5	Acetamide
2832-40-8	Acetamide, N-[4-[(2-hydroxy-5-methylphenyl)azo]phenyl]- ($C_{15}H_{15}N_3O_2$)
75-05-8	Acetonitrile
98-86-2	Acetophenone
107-02-8	Acrolein
79-06-1	Acrylamide
79-10-7	Acrylic acid
107-13-1	Acrylonitrile
107-05-1	Allyl chloride (3-chloropropene)
1336-21-6	Ammonia dissolved in water
62-53-3	Aniline
No applicable CAS number	Antimony Compounds
No applicable CAS number	Arsenic Compounds (inorganic including arsine)
1332-21-4	Asbestos
50-32-8	Benz[a]pyrene (Polycyclic aromatic hydrocarbons)
71-43-2	Benzene (including benzene from gasoline)
100-44-7	Benzene, (chloromethyl)- (C_7H_7Cl)
2536-05-2	Benzene, 1,1'-methylenebis[2-isocyanato- ($C_{15}H_{10}N_2O_2$)
26447-40-5	Benzene, 1,1'-methylenebis[isocyanato- (non-isomeric-specific) ($C_{15}H_{10}N_2O_2$)
93-58-3	Benzene, 1,2-dimethoxy-4-(2-propenyl)- ($C_{11}H_{14}O_2$)
91-08-7	Benzene, 1,3,-diisocyanato-2-methyl- (2,6-TDI) (Toluene diisocyanates ($C_9H_6N_2O_2$))

Chemical Abstracts Service Number (CAS)	Substance Name
26471-62-5	Benzene, 1,3,-diisocyanatomethyl- (TDI mixed isomers) (Toluene diisocyanates ($C_9H_6N_2O_2$))
53-19-0	Benzene, 1-chloro-2-[2,2-dichloro-1-(4-chlorophenyl)ethyl]-, which has the molecular formula $C_{14}H_{10}Cl_4$
88-72-2	Benzene, 1-methyl-2-nitro- ($C_7H_7NO_2$)
584-84-9	Benzene, 2,4,-diisocyanato-1-methyl- (2,4-TDI) (Toluene diisocyanates ($C_9H_6N_2O_2$))
92-87-5	Benzidine
205-99-2	Benzo[b]fluoranthene (Polycyclic aromatic hydrocarbons)
205-82-3	Benzo[j]fluoranthene (Polycyclic aromatic hydrocarbons)
207-08-9	Benzo[k]fluoranthene (Polycyclic aromatic hydrocarbons)
98-07-7	Benzotrichloride
100-44-7	Benzyl chloride
No applicable CAS number	Beryllium Compounds
57-57-8	beta-Propiolactone
92-52-4	Biphenyl
117-81-7	Bis(2-ethylhexyl)phthalate (DEHP)
542-88-1	Bis(chloromethyl)ether
80-05-7	Bisphenol A ($C_{15}H_{16}O_2$)
7758-01-2	Bromic acid, potassium salt ($KBrO_3$)
75-25-2	Bromoform (tribromo-methane)
No applicable CAS number	Cadmium Compounds
156-62-7	Calcium cyanamide
133-06-2	Captan
63-25-2	Carbaryl
75-15-0	Carbon disulfide
56-23-5	Carbon tetrachloride
463-58-1	Carbonyl sulfide
120-80-9	Catechol (1,2-benzenediol)
133-90-4	Chloramben (3-Amino-2,5-dichlorobenzoic acid)
57-74-9	Chlordane
No applicable CAS number	Chlorinated wastewater effluents
No applicable CAS number	Chlorinated alkanes that have the molecular formula CnHxCl(2n+2-x) in which 10≤ n≤ 20
7782-50-5	Chlorine
79-11-8	Chloroacetic acid
108-90-7	Chlorobenzene
510-15-6	Chlorobenzilate
67-66-3	Chloroform
107-30-2	Chloromethyl methyl ether
126-99-8	Chloroprene

Chemical Abstracts Service Number (CAS)	Substance Name
No applicable CAS number	Chromium Compounds
No applicable CAS number	Cobalt Compounds
No applicable CAS number	Coke Oven Emissions
No applicable CAS number	Compounds that consist of a perfluorinated alkyl group that has the molecular formula C_nF_{2n+1} in which $8 \leq n \leq 20$ and that is directly bonded to any chemical moiety other than a fluorine, chlorine or bromine atom
No applicable CAS number	Compounds that consist of a perfluorinated alkyl group that has the molecular formula C_nF_{2n+1} in which n is equal to 7 or 8 and that is directly bonded to any chemical moiety other than a fluorine, chlorine or bromine atom
No applicable CAS number	Compounds with $C_8F_{17}SO_2$, $C_8F_{17}SO_3$, or $C_8F_{17}SO_2N$ groups
No applicable CAS number	Creosote-impregnated waste materials
1319-77-3	Cresols/Cresylic acid (isomers and mixture)
98-82-8	Cumene
No applicable CAS number	Cyanide Compounds, X'CN where X = H' or any other group where a formal dissociation may occur. For example, KCN or Ca(CN)2
556-67-2	Cyclotetrasiloxane, octamethyl- ($C_8H_{24}O_4Si_4$)
3547-04-4	DDE
334-88-3	Diazomethane
132-64-9	Dibenzofurans
2629-41-4	Dibenzo-para-dioxin ($C_{12}H_8O_2$)
84-74-2	Dibutylphthalate
789-02-6 50-29-3	Dichlorodiphenyltrichloroethane (DDT), which has the molecular formula $C_{14}H_9Cl_5$
111-44-4	Dichloroethyl ether (Bis(2-chloroethyl)ether)
62-73-7	Dichlorvos
111-42-2	Diethanolamine
64-67-5	Diethyl sulfate (diethyl ester sulfuric acid)
60-11-7	Dimethyl aminoazobenzene
79-44-7	Dimethyl carbamoyl chloride
68-12-2	Dimethyl formamide (Formamide, N,N-dimethyl-)
131-11-3	Dimethyl phthalate
77-78-1	Dimethyl sulfate
2385-85-5	Dodecachloropentacyclo [5.3.0.02,6.03,9.04,8] decane (Mirex)
No applicable CAS number	Effluents from pulp mills using bleaching
No applicable CAS number	Effluents from textile mills using wet processing
106-89-8	Epichlorohydrin (l-Chloro-2,3-epoxypropane); Oxirane, (chloromethyl)
111-77-3	Ethanol, 2-(2-methoxyethoxy)- ($C_5H_{12}O_3$)
110-49-6	Ethanol, 2-methoxy-, acetate ($C_5H_{10}O_3$)
140-88-5	Ethyl acrylate (2-Propenoic acid, ethyl ester)
100-41-4	Ethyl benzene

Chemical Abstracts Service Number (CAS)	Substance Name
51-79-6	Ethyl carbamate (Urethane), (Carbamic acid, ethyl ester)
75-00-3	Ethyl chloride (Chloroethane)
106-93-4	Ethylene dibromide (Dibromoethane)
107-06-2	Ethylene dichloride (1,2-Dichloroethane)
107-21-1	Ethylene glycol (1,2-Ethanediol)
151-56-4	Ethylene imine (Aziridine)
75-21-8	Ethylene oxide
96-45-7	Ethylene thiourea (2-Imidazolidinethione)
75-34-3	Ethylidene dichloride (1,1-Dichloroethane)
106-88-7	Ethyloxirane (C_4H_8O)
No applicable CAS number	Fine mineral fibers, includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less
50-00-0	Formaldehyde
68476-30-2	Fuel Oil No. 2
No applicable CAS number	Glycol ethers, Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n -OR' where n = 1, 2, or 3 R = alkyl or aryl groups R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH2CH)n-OH. Polymers are excluded from the glycol category.
76-44-8	Heptachlor
3194-55-6	Hexabromocyclododecane, which has the molecular formula $C_{12}H_{18}Br_6$
118-74-1	Hexachlorobenzene
87-68-3	Hexachlorobutadiene
77-47-4	Hexachlorocyclopentadiene
67-72-1	Hexachloroethane
822-06-0	Hexamethylene-1,6-diisocyanate
680-31-9	Hexamethylphosphoramide
110-54-3	Hexane
1246542-93-7	Hexane, 1,6-diisocyanato-, homopolymer, reaction products with alpha-fluoro-omega-2-hydroxyethyl-poly(difluoro- methylene), C16-20-branched alcohols and 1-octadecanol
103-23-1	Hexanedioic acid, bis(2-ethylhexyl) ester ($C_{22}H_{42}O_4$)
302-01-2	Hydrazine
7647-01-0	Hydrochloric acid
7664-39-3	Hydrogen fluoride (Hydrofluoric acid)
7783-06-4	Hydrogen sulfide
123-31-9	Hydroquinone (1,4-Benzenediol)
193-39-5	indeno[1,2,3-cd]pyrene (Polycyclic aromatic hydrocarbons)
No applicable CAS number	Inorganic Chloramines ($NH_nCl_{(3-n)}$, $0 \leq n \leq 2$)

Chemical Abstracts Service Number (CAS)	Substance Name
No applicable CAS number	Inorganic fluorides
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester ($C_{15}H_{10}N_2O_2$•$[C_8H_5NO]_n$)
78-59-1	Isophorone
No applicable CAS number	Lead Compounds
58-89-9	Lindane (all isomers); (Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1α,2α,3β,4α,5α,6β)-)
108-31-6	Maleic anhydride (2,5-Furandione)
No applicable CAS number	Manganese Compounds
108-39-4	m-Cresol
No applicable CAS number	Mercury Compounds
67-56-1	Methanol
90-94-8	Methanone, bis[4-(dimethylamino)phenyl]- ($C_{17}H_{20}N_2O$)
72-43-5	Methoxychlor (Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-)
74-83-9	Methyl bromide (Bromomethane)
74-87-3	Methyl chloride (Chloromethane)
71-55-6	Methyl chloroform (1,1,1-Trichloroethane)
78-93-3	Methyl ethyl ketone (2-Butanone)
60-34-4	Methyl hydrazine
74-88-4	Methyl iodide (Iodomethane)
108-10-1	Methyl isobutyl ketone (Hexone)- 2-Pentanone, 4-methyl-
624-83-9	Methyl isocyanate
80-62-6	Methyl methacrylate (2-Propenoic acid, 2-methyl-, methyl ester)
1634-04-4	Methyl tert butyl ether (Propane, 2-methoxy-2-methyl-)
75-09-2	Methylene chloride (Dichloromethane)
101-68-8	Methylene diphenyl diisocyanate (MDI); (Benzene, 1,1'-methylenebis[4-isocyanato-)
569-64-2	Methylium, [4-(dimethylamino)phenyl]bis[4-(ethylamino)-3-methylphenyl]-, acetate
108-38-3	m-Xylenes
68953-84-4 68478-45-5	N,N'-mixed phenyl and tolyl derivatives of 1,4-benzenediamine
121-69-7	N,N-Dimethylaniline (dimethyl-benzenamine)
91-20-3	Naphthalene
64741-47-5	Natural gas condensates (C_5–C_{15} hydrocarbons)
2426-08-6	n-Butyl glycidyl ether ($C_7H_{14}O_2$)
No applicable CAS number	Nickel Compounds
98-95-3	Nitrobenzene
62-75-9	N-Nitrosodimethylamine
59-89-2	N-Nitrosomorpholine
684-93-5	N-Nitroso-N-methylurea

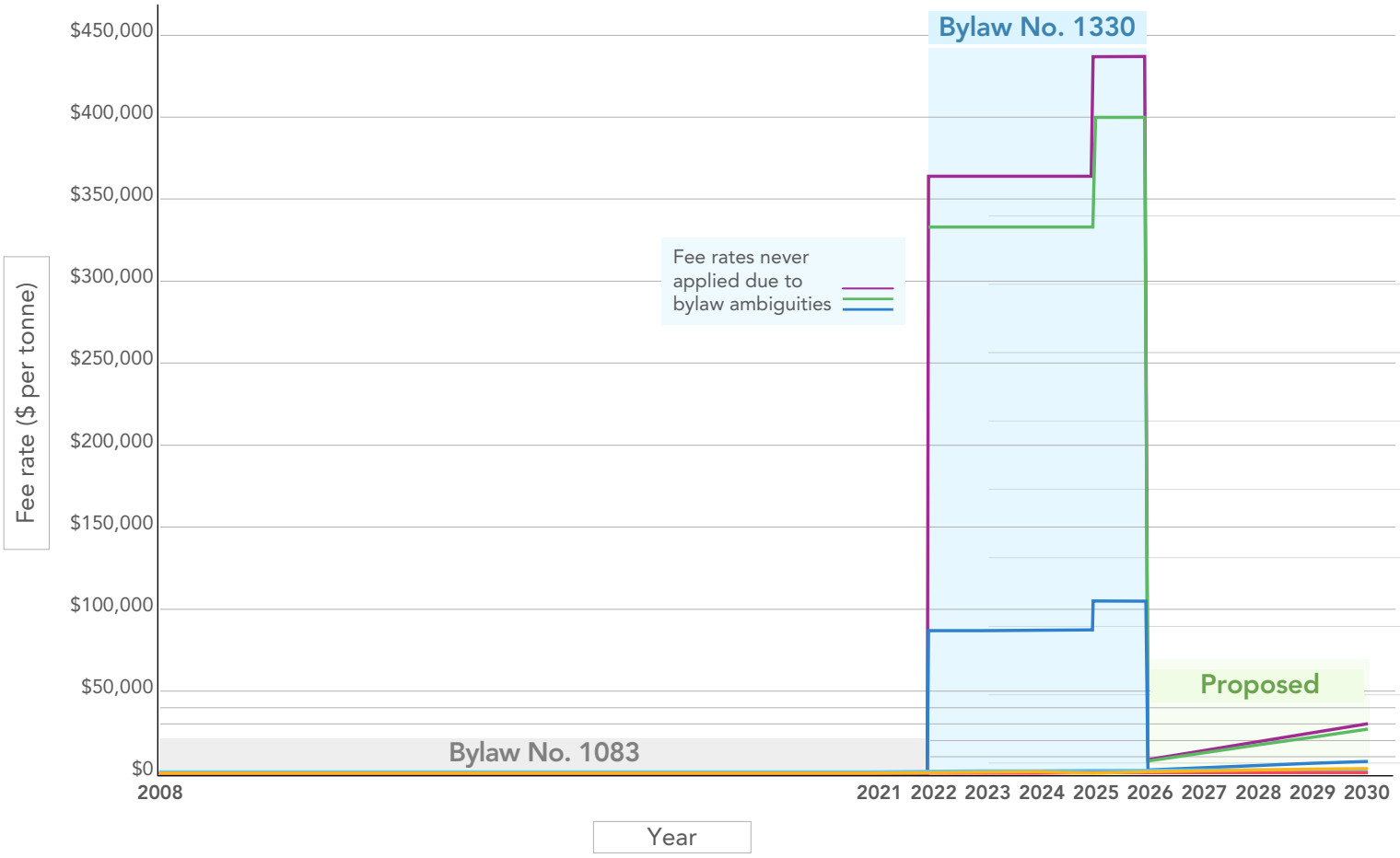
Chemical Abstracts Service Number (CAS)	Substance Name
No applicable CAS number	Nonylphenol and its ethoxylates
90-04-0	o-Anisidine
95-48-7	o-Cresol
95-53-4	o-Toluidine
7328-97-4	Oxirane, tetrakis(phenyleneoxymethylene) derivative ($C_{38}H_{38}O_8$)
95-47-6	o-Xylenes
56-38-2	Parathion
106-44-5	p-Cresol
608-93-5	Pentachlorobenzene, which has the molecular formula C_6HCl_5
82-68-8	Pentachloronitrobenzene (Quintobenzene)
87-86-5	Pentachlorophenol
No applicable CAS number	Perfluorocarboxylic acids that have the molecular formula $C_nF_{2n+1}CO_2H$ in which $8 \leq n \leq 20$ and their salts
40088-47-9 32534-81-9 36483-60-0 68928-80-3 32536-52-0 63936-56-1 1163-19-5	Perfluorooctane sulfonate and its salts
40088-47-9 32534-81-9 36483-60-0 68928-80-3 32536-52-0 63936-56-1 1163-19-5	Perfluorooctane sulfonate and its salts
335-67-1	Perfluorooctanoic acid ($C_7F_{15}CO_2H$) and salts
108-95-2	Phenol
17540-75-9	Phenol, 2,6-bis(1,1-dimethylethyl)-4-(1-methylpropyl)-, which has the molecular formula $C_{18}H_{30}O$
3380-14-1	Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- ($C_{12}H_7Cl_3O_2$)
75-44-5	Phosgene
7803-51-2	Phosphine
7723-14-0	Phosphorus
85-44-9	Phthalic anhydride
12656-85-8	Pigment Red 104
1344-37-2	Pigment Yellow 34
No applicable CAS number	Polybrominated Biphenyls that have the molecular formula $C_{12}H_{(10-n)}Br_n$ in which "n" is greater than 2
No applicable CAS number	Polybrominated diphenyl ethers ($C_{12}H_{(10-n)}Br_nO$, $7 \leq n \leq 10$)

Chemical Abstracts Service Number (CAS)	Substance Name
No applicable CAS number	Polybrominated diphenyl ethers that have the molecular formula C12H(10-n)BrnO in which 4≤n≤6
1336-36-3	Polychlorinated biphenyls (Aroclors)- (1,1'-Biphenyl, chloro derivs.)
No applicable CAS number	Polychlorinated dibenzofurans that have the molecular formula $C_{12}H_{(8-n)}Cl_nO$ in which "n" is greater than 2
No applicable CAS number	Polychlorinated dibenzo-para-dioxins that have the molecular formula $C_{12}H_{(8-n)}Cl_nO_2$in which "n" is greater than 2
No applicable CAS number	Polychlorinated naphthalenes, which have the molecular formula $C_{10}H_{8-n}Cl_n$ in which "n" is greater than 1
No applicable CAS number	Polychlorinated Terphenyls that have a molecular formula $C_{18}H_{(14-n)}Cl_n$ in which "n" is greater than 2
No applicable CAS number	Polycyclic Organic Matter, includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 ºC.
106-50-3	p-Phenylenediamine
123-38-6	Propionaldehyde
114-26-1	Propoxur (Baygon)
78-87-5	Propylene dichloride (1,2-Dichloropropane)
75-56-9	Propylene oxide
106-42-3	p-Xylenes
91-22-5	Quinoline
106-51-4	Quinone
No applicable CAS number	Radionuclides (including radon), a type of atom which spontaneously undergoes radioactive decay.
68412-48-6	Reaction products of 2-propanone with diphenylamine (PREPOD)
No applicable CAS number	Refractory ceramic fibre
No applicable CAS number	Selenium Compounds
100-42-5	Styrene (Benzene, ethenyl-)
96-09-3	Styrene oxide (Oxirane, phenyl-)
1461-22-9	Tetrabutyltins ($(C_4H_9)_4Sn$)
127-18-4	Tetrachloroethylene
12408-10-5 84713-12-2 634-90-2 634-66-2 95-94-3	Tetrachlorobenzenes, which have the molecular formula $C_6H_2Cl_4$
127-18-4	Tetrachloroethylene (Perchloroethylene)
62-56-6	Thiourea (CH_4N_2S)
7550-45-0	Titanium tetrachloride
108-88-3	Toluene (methyl benzene)
8001-35-2	Toxaphene (chlorinated camphene)
81741-28-8	Tributyltetradecylphosphonium chloride ($C_{26}H_{56}P•Cl$)
No applicable CAS number	Tributyltins, which contain the grouping $(C_4H_9)_3Sn$

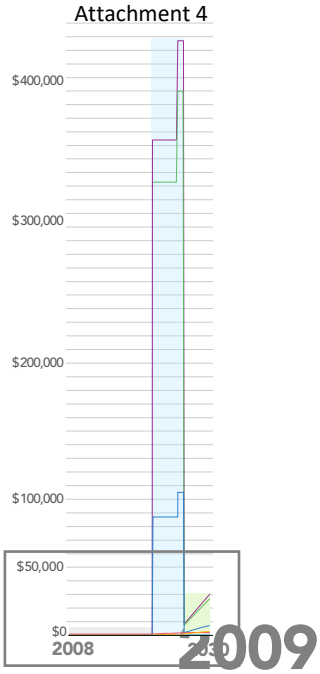
Chemical Abstracts Service Number (CAS)	Substance Name
79-01-6	Trichloroethylene
121-44-8	Triethylamine
1582-09-8	Trifluralin (Benzenamine, 2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl)-)
1314-62-1	Vanadium pentoxide (V_2O_5)
108-05-4	Vinyl acetate
593-60-2	Vinyl bromide
75-01-4	Vinyl chloride
75014	Vinyl Chloride
75-35-4	Vinylidene chloride (1,1-Dichloroethylene)
1330-20-7	Xylenes (isomers and mixture)

NOTE: For all substances listed above which contain the word "compounds" after the name of a chemical (i.e., antimony, arsenic, etc.), and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

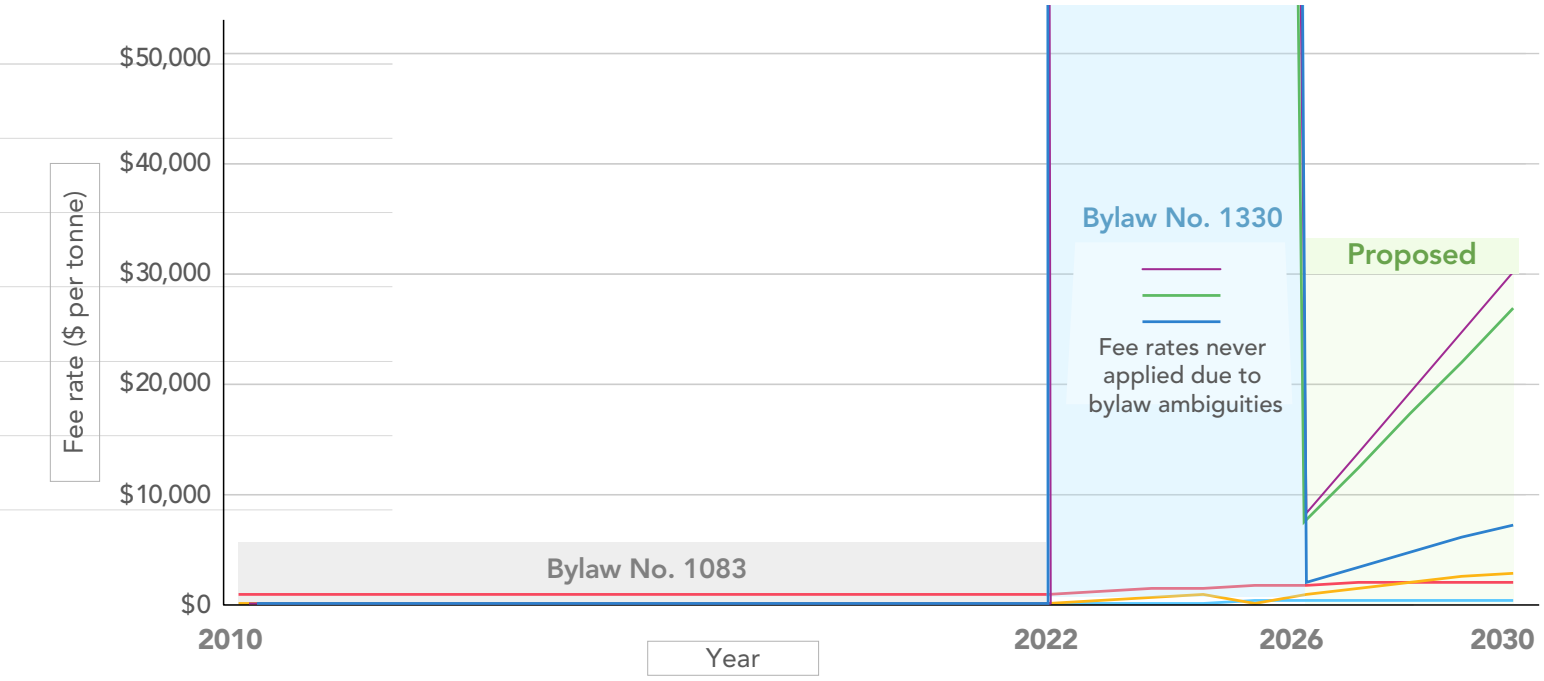
FEE RATES FOR ODOROUS AIR CONTAMINANTS
Trends (2008–2030)



- Pentanoic acid (valeric acid)
- Methyl mercaptan
- Hydrogen sulphide
- Total Reduced Sulphur
- Photoreactive volatile organic compounds
- Hazardous Air Pollutants



FEE RATES FOR ODOROUS AIR CONTAMINANTS (DETAIL)
Trends (2008–2030)



- Pentanoic acid (valeric acid)
- Methyl mercaptan
- Hydrogen sulphide
- Total Reduced Sulphur
- Photoreactive volatile organic compounds
- Hazardous Air Pollutants

Benchmarking of Regulatory Fees and Cost Recovery Approaches

Jurisdiction	Application fee for new permits	Maximum renewal fee	Annual emission or inspection fee	Cost-recovery principle for permit application processing	Odorous pollutants subject to emission fees
Québec Ministry of the Environment, the Fight against Climate Change, Wildlife and Parks (Canada)	CAD$223,000[1] – maximum fee for Category 4 projects (new oil refinery, rendering plant, cement plant, metallurgical plant, etc) involving environmental assessment and public notification CAD$186,000[2] – maximum fee for Category 3 major plant capacity increases involving environmental assessment and public notification	CAD$10,452 for renewals of industrial authorizations	CAD$3,710 fixed annual fee plus CAD$9.08 per tonne of air contaminant emitted	50% cost recovery from dischargers[3]; public taxes cover remainder	Emission fee applies per tonne of any air contaminant, including TRS, VOCs, and hydrogen sulphide
New Brunswick, Environment and natural resources	Class 1A (large industrial facilities e.g., pulp mills, oil refineries, power plants): $66,000; Class 1B: $30,800; Class 2: $16,500; Class 3: $5,500; Class 4 (small operations e.g., rock quarries, concrete plants): $1,100	Same as application (annual)	None	Partial cost recovery; public funds cover remainder	None

[1] Article 22, al. 1, 6° de la LQE – Rejets de contaminants dans l'atmosphère; Procédure d'évaluation environnementale - Québec méridional

[2] Q-2R28.02_FR_001_001.pdf

[3] Rapport annuel de gestion 2023-2024, P. 55.

Jurisdiction	Application fee for new permits	Maximum renewal fee	Annual emission or inspection fee	Cost-recovery principle for permit application processing	Odorous pollutants subject to emission fees
	Above fees are payable every year[4]				
Ontario Ministry of the Environment, Conservation and Parks (Canada)	Fee varies by equipment; no cap **Administrative Processing Fee** • $200 (with technical review) • $100 (without technical review) **Subject Matter Review** • $400 per piece of equipment • Up to $42,000 for hazardous waste incineration sites **Additional Reviews (if required)** • Emission Summary: up to $3,000 • Noise Assessment: $500–$2,250 **Environmental Review Tribunal Hearing (if required)** $18,000	$400: if there is no increase in authorized discharge. Renewals require a new application if conditions change; same fees apply	None	Partial cost recovery from dischargers; public taxes cover remainder	None – odour managed via odour screening for Environmental Activity and Sector Registry (EASR) registrants
Alberta Environment and Protected Areas (Canada)	Category 1 (Large-Scale or High-Impact Facilities): $30,000[5] Category 2 (Medium-Large Facilities): $15,000 Category 3 Medium-Small Facilities: $5,000	Category 1: $15,000 Category 2 (Medium-Large Facilities): $7,500 Category 3 Medium-Small Facilities: $2,500	None	Partial cost recovery from dischargers; public taxes cover remainder	None – Alberta does not charge emission fees; odours managed through ambient total reduced sulphur (TRS) guideline

[4] New Brunswick Air quality and environmental programs
[5] Alberta Environment and Protected Areas

Jurisdiction	Application fee for new permits	Maximum renewal fee	Annual emission or inspection fee	Cost-recovery principle for permit application processing	Odorous pollutants subject to emission fees
Ministry of Environment and Parks, British Columbia	Tier 3[6]: $10,000* Tier 2[7]: $2,500* Tier 3[8]: $1,250* Frequent Amendments Surcharge: Increases the application fee by 2x*	Not applicable	Base fee: Tier 3[1]: $5,000* Tier 2[2]: $2,500* Tier 3[3]: $1,250* plus emission fees ranging from $0.54 to $815.06 per tonne discharged	No cost-recovery principle stated	Emission fees for ammonia $20.30 per tonne, total reduced sulphur (TRS) $679.21 per tonne, VOCs (volatile organic compounds) $20.30 per tonne
Nova Scotia, Department of Environment and Climate Change	Category I[9]: $8,625.15 Category II: $3,317.35 Category III: $1,326.95 Category IV: $484 Plus environmental assessment fee (if required) Category I undertaking registration: $17,250.4 Category II undertaking registration: $11,146.4 Category III undertaking registration = $6,369.35 approval transfer = $662.85 focus report = $6,634.75 environmental assessment report = $17,250.4 additional information request = 1/2 registration fee	Same as application for a new permit	Class 1: ≥30 (Threshold, tonnes of pollutants/year) = $7.35/tonne Class 2: <30 (Threshold, tonnes of pollutants/year) = no fee		None
New York State Department of		Title V permits renewed every five years without a	Annual base fee US$2,500 + per-ton	Full cost recovery from dischargers	Emission fee applies per ton of odorous

* Environmental Management Act (EMA) Fee Review: Summary of proposed changes (confidential)

[6] Projects under the Environmental Assessment Act's (EAA) Reviewable Project Regulation

[7] Regulated entities under the Waste Discharge Regulation Schedule 1

[8] Regulated entities under the Waste Discharge Regulation Schedule 2

[9] Fees Regulations made under clause 8A(1)(a) of the Environment Act, 11 (2)

Jurisdiction	Application fee for new permits	Maximum renewal fee	Annual emission or inspection fee	Cost-recovery principle for permit application processing	Odorous pollutants subject to emission fees
Environmental Conservation (USA)	Costs recovered through annual fees to a maximum of US$632,500[10] [11] per year	separate renewal fee; Facilities continue to pay annual fees	emission fee US$60/ton to $90/ton to a maximum of US$632,500		compounds such as volatile organic compounds (VOCs)
South Coast Air Quality Management District (California, USA)	**Non-Title V Not to Exceed:** $105,925.6 **Title V facilities maximum fee** $296,811.26 plus public hearing fees ($6,489.04 plus $2,017.53 per hour) and equipment fees [12]	Title V Annual Operating Permit Renewal Fee: $6,095.70 plus RECLAIM fee $272.16 per Process Unit Device + Title V fee $1,027.61 per facility	Flat annual emissions fee of $170.94 plus $0.04 to $1,971.08 per ton per year charged when release is greater than or equal to the annual thresholds Plus Refinery-related Community Air Monitoring System Annual Operating and Maintenance Fees	Full cost recovery from dischargers	None – odour complaints handled via nuisance provisions
Bay Area Air Quality Management District (California, USA)	Up to $200,137[13] per combustion source for schedule B initial fee. Additional fees for risk assessments $200,137 per combustion source and toxic	**Permit-to-operate fee** $100,069 per combustion source plus **Processing Fee for Renewal**	Major stationary source fee: $164.07 per each ton of organic compounds, SOx, NOx, PM10	Full cost recovery from dischargers; discounts available for small/green businesses	None – odour regulation under Regulation 7; no fee

[10] Express Terms 6 NYCRR Subpart 482-2, "Operating Permit Program Fee"
[11] Air Facility Permits, Registrations And Fees
[12] Rule 301. Permitting And Associated Fees, P. 301 – 69

[13] Regulation 3 Fees, P. 3-23

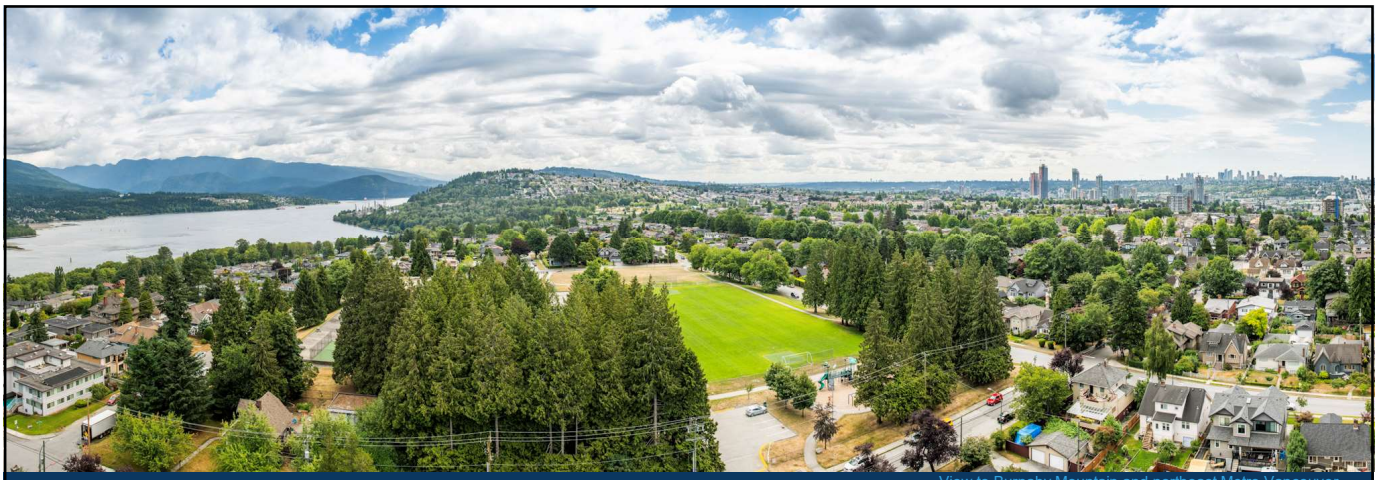
Jurisdiction	Application fee for new permits	Maximum renewal fee	Annual emission or inspection fee	Cost-recovery principle for permit application processing	Odorous pollutants subject to emission fees
	surcharges; maximum schedule values differ across equipment categories.	• $1,296 maximum for facilities with more than 20 permitted sources. Plus (if applicable) **Surcharges & Caps** • AB 617 Community Health Impact Fee: capped at $129,815/year. • Criteria Pollutant & Toxic Emissions Reporting (CTR): capped at $64,908/year. • Overburdened Community Fee: capped at $282,207/year.	Refining Emissions Tracking Fees (if applicable): $118,388 (initial submission) $59,195 (subsequent annual submissions) Major stationary source community air monitoring fees (schedule X): $60.61 per each ton of organic compounds, SOx, NOx, PM10		
Texas Commission on Environmental Quality (USA)	US$75,000[14] maximum for New Source Review permits (0.30% of capital cost, capped); Prevention of Significant Deterioration permits charge 1% of capital cost (no published maximum)	New source review permit renewal fee is based on an incremental formula applied based on tonnage and is capped at $10,000.	Air emissions or inspection fee based on the greater of pollutant tonnage or inspection rate (rate varies; first 4,000 tons per pollutant counted)	Full cost recovery from dischargers	Emission fees apply to all regulated pollutants, including odorous compounds such as volatile organic compounds (VOCs), hydrogen sulphide and ammonia

[14] Fee Rates Associated with Air Permitting

Jurisdiction	Application fee for new permits	Maximum renewal fee	Annual emission or inspection fee	Cost-recovery principle for permit application processing	Odorous pollutants subject to emission fees
Northwest Clean Air Agency	New source review fee (per source): No cap; for large equipment approx. $25,000+[15]	Covered under annual operating fee (Air Operating Permits renews every five years)	Annual fee for Air Operating Permits: No cap; for 2024 highest fee for a facility was $858,100[16]	Full cost recovery from dischargers	None

[15] Northwest Clean Air Agency (NWCAA) New source review fee schedule

[16] Regulation of the Northwest Clean Air Agency



View to Burnaby Mountain and northeast Metro Vancouver

Air Quality Management Fees Bylaw

RECOMMENDED AMENDMENTS

Conor Reynolds, P.Eng., Ph.D.
Director, Air Quality and Climate Action Services

Esther Bérubé, P.Eng., M.Eng.
Division Manager, Air Quality Bylaw Development

Kathy Preston, P.Eng., Ph.D.
Director, Environmental Regulation and Enforcement

Air Quality Committee Meeting – January 16, 2026
79664510

metrovancouver

1

AIR QUALITY MANAGEMENT FEES BYLAW

- Sets fee rates for authorized air contaminant discharge
- Guiding principles
  - Emissions reduction
  - Dischargers of emissions pay in proportion to impact
  - Cost recovery
- Updates are needed
  - Ambiguities in current bylaw
  - Higher fees for some facilities if bylaw not amended

Industrial Facility in Metro Vancouver

2

ENGAGEMENT FEEDBACK

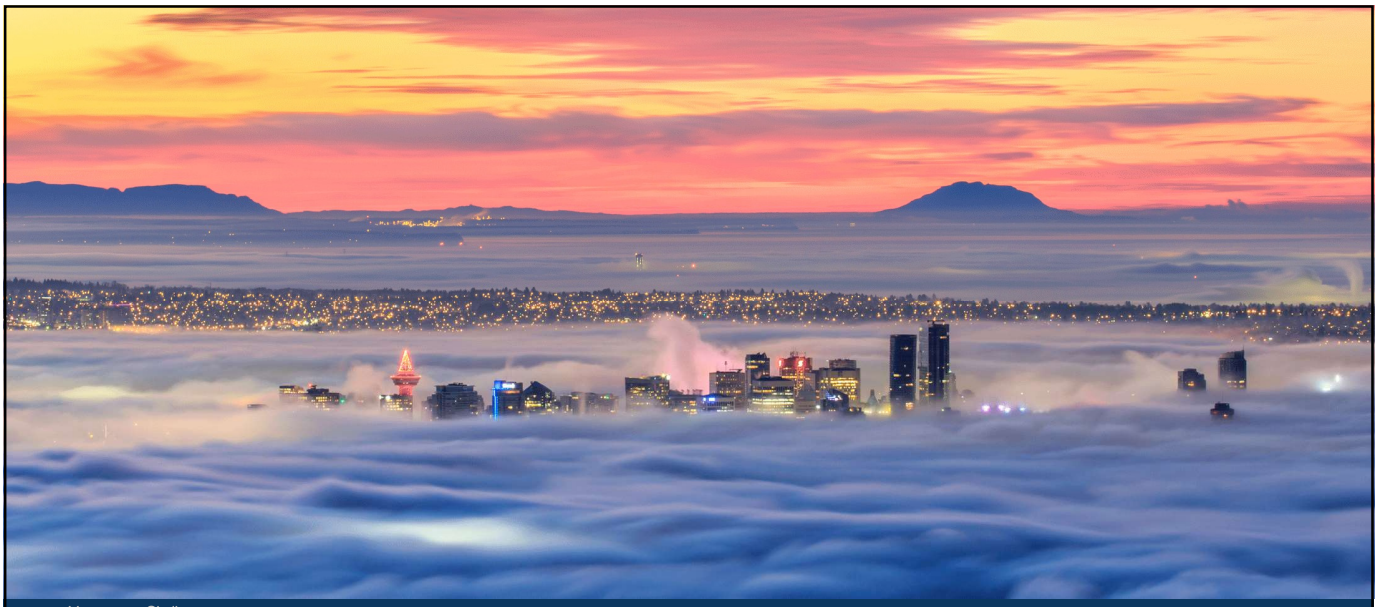
- Scaling of fees to impacts
- Cost transparency
- Clarity, predictability, efficiency
- Competitiveness and benchmarking
- Avoid unintended consequences
- Incentives to reduce emissions
- Balance with regional goals
- BC gov't recommendations on fee rates, application fees, and odour management

3

RECOMMENDED AMENDMENTS

- Clearer definitions
- Single fee rate for multi-category substances
- Clear rules for odorous air contaminants
- Shorter list of odorous air contaminants
- Simpler, reduced fee rates for odorous air contaminants
- Reduced caps on application fees
- Apply interest on overdue payments
- Apply changes retroactively where they result in lower fees

4



Vancouver Skyline

Questions?

metrovancouver

5

5

METRO VANCOUVER REGIONAL DISTRICT
AIR QUALITY COMMITTEE

Friday, January 16, 2026

ON TABLE

1. Additional information re: item E2 MVRD Air Quality Management Fees Regulation Amendment Bylaw No. 1440, 2026, received after agenda publication.

fraserhealth

Better health.
Best in health care.

January 12th, 2026

Metrotower III
4515 Central Boulevard
Burnaby, BC V5H 0C6

Re: Proposed amendments to Metro Vancouver's Air Quality Management Fees Bylaw No. 1330

Dear Conor Reynolds:

As a Medical Health Officer for Fraser Health, I appreciate the opportunity to provide feedback on the proposed amendments to the Air Quality Management Fees Bylaw No. 1330, particularly regarding the changes proposed to fees for Odorous Air Contaminants (OACs). A structured permit fee system that incentivizes emissions reductions, including odours, is an important step in addressing ongoing concerns associated with odour producing activities.

Odour complaints remain the most common type of air quality-related concern received by Metro Vancouver.[i] At Fraser Health, we similarly receive complaints from members of the public about disruptive odours in their neighbourhoods. These concerns reflect a broader expectation that local authorities will take meaningful action to address environmental nuisances that affect daily life.

Exposure to odours is not always directly linked to specific health effects, but some studies have reported associations with increased risk of symptoms such as headaches and cough/phlegm.[ii] Even in the absence of measurable toxic outcomes, odours can have important impacts on health and wellbeing.

[i] Metro Vancouver. Odour. Metro Vancouver; 2024. Available from: https://metrovancouver.org/services/environmental-regulation-enforcement/air-quality-regulatory-program/odour

[ii] Guadalupe-Fernandez V, De Sario M, Vecchi S, et al. Industrial odour pollution and human health: a systematic review and meta-analysis. Environ Health. 2021;20(1):108. doi:10.1186/s12940-021-00774-3

Medical Health Officer
Fraser Health

400 – 13450 102nd Avenue
Surrey, BC V3T 0H1 Canada

Tel:(604)-930-5404
Fax:(604)-930-5414
www.fraserhealth.ca

Exposure to odours can discourage the use of outdoor spaces, which in turn can reduce opportunities for physical activity and social connection.[iii] Odours may also inadvertently increase exposure to other environmental hazards, such as during periods of extreme heat when residents may keep windows closed to avoid odours, making it more difficult to cool their homes.[iii]

An effective odour management program that includes a structured permit fee system can help strengthen public confidence that concerns about odours are being taken seriously, and that environmental hazards are being appropriately managed, while also encouraging emission reductions. Our Environmental Health Protection team at Fraser Health appreciates the work being done at Metro Vancouver to strengthen the management of OACs and support health and wellbeing in our communities.

Sincerely,

Emily Newhouse MD, CM, MPH, FRCPC
Medical Health Officer – Medical Director
Population and Public Health
Fraser Health

[iii] Eykelbosh A, Maher R, de Ferreyro Monticelli D, Ramkairsingh A, Henderson S, Giang A, et al. Elucidating the community health impacts of odours using citizen science and mobile monitoring. Environ Health Rev. 2021;64(2):24-27. doi:10.5864/d2021-010

October 20, 2025

Sent by email:
Esther.Berube@metrovancouver.org

Metro Vancouver
Head Office - Metrotower III
4515 Central Boulevard
Burnaby, B.C. V5H 0C6

Attention: Esther Berube - Division Manager, Air Quality Bylaw and Regulation Development, Metro Vancouver

Dear Ms. Berube:

Re: **Proposed Amendments To Air Quality Management Fees Bylaw 1330, 2021**

The undersigned represent businesses that have prominent roles in the BC economy from numerous sectors, including energy, waste management, construction, and food production. Not only do we play a critical role in furthering important provincial agendas related to food and energy security, affordable housing and climate change, these companies are responsible for billions of dollars of economic activity and thousands of jobs in the province.

In its current form, Bylaw 1330 is unclear, unnecessarily complex and lacks transparency. These fundamental issues create uncertainty and unpredictability in the application of the bylaw which ultimately creates barriers to growth and investment in our sectors and impairs regional competitiveness.

The amendments proposed do not address the fundamental issues with the Bylaw and warrant a complete and thorough review both internally and then with external stakeholders.

At a minimum, we respectfully request that Metro Vancouver consider adopting the following in their amendments:

1. Delete all references to Odour Units, Odorous Air Contaminants and Odour Detection Thresholds in the Bylaw
2. Delete Schedule B from the Bylaw
3. Develop a fee schedule based on a transparent accounting of the costs it seeks to recover and proportionate to a permit holder's emissions as determined by the measurement of an accepted, standard and representative air contaminant.
4. Conduct a detailed and transparent consultation with all air quality permit holders on the new proposed fee schedule.

We also request the opportunity to comment on any response to the current consultation process prior to its presentation to the Air Quality Committee.

Thank you,

[Signatories Page Follows]

Proposed Amendments To Air Quality Management Fees Bylaw 1330, 2021
Joint Submission to Metro Vancouver
October 20, 2025

West Coast Reduction Ltd.

Ken Ingram
Director of Technical and Env. Services

BC Salmon Farmers

Brian Kingzett (Oct 20, 2025 13:28:20 PDT)

Brian Kingzett
Executive Director

Hallmark Farms

Ron Pollon (Oct 20, 2025 13:49:32 PDT)

Ron Pollon
General Manager

Amrize

Stephanie Voysey (Oct 20, 2025 16:15:49 PDT)

Stephanie Voysey
Head of Environment, Canada Cement

GFL

Lee St. Arnaud (Oct 23, 2025 16:23:55 MDT)

Lee St. Arnaud
Area Vice President, Solid Waste West

Skretting

Trevor Stanley (Oct 20, 2025 13:47:33 PDT)

Trevor Stanley
Managing Director, Skretting North America

BC Agriculture Council

Danielle Synotte (Oct 20, 2025 14:49:58 PDT)

Danielle Synotte
Executive Director

cc:

Honourable Tamara Davidson, BC Minister of Environment	ENV.Minister@gov.bc.ca
Honourable Lana Popham, BC Minister of Agriculture and Food	AF.Minister@gov.bc.ca
Honourable Ravi Kahlon, BC Minister of Jobs and Economic Growth	JEDI.Minister@gov.bc.ca
Jerry Dobrovolny, Commissioner/CAO, Metro Vancouver	Jerry.dobrovolny@metrovancouver.org
Lisa Dominato, Chair, Metro Vancouver Air Quality and Climate Committee	clrdominato@vancouver.ca