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Proposed Amendments to Metro Vancouver's Air Quality Management Fees Regulation Bylaw No. 1330

Discussion Paper

May 2025

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Summary

Metro Vancouver regulates the discharge of air contaminants from businesses and other emission sources within the region. Businesses with emissions authorized under permits, approvals, or emission regulation bylaws pay fees based on the quantity and potential impact of authorized air contaminants.

In response to feedback from regulated businesses, Metro Vancouver proposes focused amendments to the *Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021* (MVRD Bylaw 1330, 2021). The proposed amendments would clarify the fee structure, reduce some fee rates to balance cost recovery with impacts on regulated businesses and regional affordability, and align definitions with federal and provincial legislation. These updates align with Metro Vancouver's commitments under the *Clean Air Plan and the Board Strategic Plan 2022-2026*, and are guided by continuous improvement.

Proposed amendments would:

- clarify which fees apply to air contaminants that fall within more than one category of air contaminants;
- reduce fee rates for odorous air contaminants (OACs), and clarify how these fees are applied;
- reduce the maximum fee for applications for permits, approvals, and amendments;
- apply interest to overdue payments; and
- update definitions to align with federal and provincial legislation that has changed since MVRD Bylaw 1330, 2021 was adopted in October 2021.

The proposed amendments emphasize the principle of cost recovery from emitters of air contaminants, requiring businesses to bear financial responsibility in proportion to the potential impacts of their emissions. This approach encourages emissions reduction and promotes fairness across regulated businesses.

Metro Vancouver invites feedback on the proposed amendments by August 1, 2025. All input will be considered until the Metro Vancouver Board makes a decision on the final amendments.

Purpose of this Discussion Paper

The proposed changes reflect Metro Vancouver's commitment to balancing environmental protection with economic considerations, ensuring the region's air quality management framework remains effective, equitable, and responsive to evolving needs.

This discussion paper serves to:

- Provide detailed information on the proposed amendments;
- Explain the rationale behind the proposed amendments, emphasizing alignment with the principles of cost recovery and regional affordability; and
- Support engagement with interest holders likely to comment, be impacted, or have a role in implementation.

This discussion paper may be of interest to:

- Businesses subject to air quality regulatory fees;
- First Nations;
- Metro Vancouver's member jurisdictions;
- Provincial, federal, and other government agencies;
- Health authorities; and
- The broader public, including those with an interest in air emissions, or who may be impacted by this bylaw (for example, through proximity to a permitted facility).

Metro Vancouver welcomes feedback from all interest holders on the proposed amendments. Input will be considered until the Metro Vancouver Board decides on amendments to MVRD Bylaw 1330, 2021.

Context

The Metro Vancouver Regional District (MVRD) consists of 21 municipalities, one electoral area, and one Treaty First Nation. Under authority delegated by the provincial government initially through Letters Patent and then through the British Columbia *Environmental Management Act* (EMA), Metro Vancouver has been responsible for managing air quality and regulating the discharge of air contaminants in the region for over 50 years. Section 31 of the EMA grants the Metro Vancouver Board the power to "prohibit, regulate and otherwise control and prevent the discharge of air contaminants" and "establish […] rates or levels of fees" through bylaws.

- The *Greater Vancouver Regional District Air Quality Management Bylaw No. 1082, 2008* (GVRD Bylaw 1082, 2008) provides the regulatory framework for managing air emissions. Under this bylaw, emissions of air contaminants are prohibited unless authorized through a valid permit, approval, order, or emission regulation. GVRD Bylaw 1082, 2008 also requires that emissions do not cause pollution, irrespective of the authorization status.

The *Clean Air Plan*, endorsed in 2021, guides Metro Vancouver's vision and actions for managing air quality over the next decade. These initiatives aim to achieve ambitious air quality goals and compliance with or improvement on ambient air quality standards and objectives at the federal and regional levels, respectively.

MVRD Bylaw 1330, 2021 and its predecessor air quality management fee regulation bylaws were established to support the regulatory measures in GVRD Bylaw 1082, 2008 and to define the fee structure to recover costs for air quality regulatory services. The fee structure is designed to encourage emitters to reduce emissions, thereby supporting the goals of the *Clean Air Plan*. MVRD Bylaw 1330, 2021 imposes different fees on air contaminants depending on their relative potential impacts on people and the environment. These fees are guided by the discharger-pay principle, ensuring that those responsible for emissions bear the financial responsibility for managing their impacts. This approach incentivizes businesses to minimize their emissions to avoid higher costs, promotes continuous improvement in air quality, and aids in the achievement of regional goals.

Defining the Problem

Since the Metro Vancouver Board adopted MVRD Bylaw 1330, 2021 in October 2021, there have been changes to the economic and regulatory landscape that have influenced the impact of the bylaw's fees, such as:

- Economic and geopolitical uncertainty have increased pressure on regional affordability;
- Regulated businesses have sought greater clarity regarding applicable fee rates, particularly when an air contaminant belongs to multiple categories of air contaminants;
- Regulated businesses have raised questions about the implications of the scheduled discontinuation of the fee rate for Total Reduced Sulphur compounds (TRS) in 2025. This change will result in the application of fee rates for specified odorous air contaminants (OACs) and for whole emission discharge of OACs, which are currently much higher.
- There is currently no upper limit on application fees for businesses applying for authorization to discharge air contaminants, which may result in high application fees for some businesses.
- The federal government updated the *Canadian Environmental Protection Act, 1999* (CEPA) and its list of toxic substances, which affects the definition of hazardous air pollutants (HAP) in MVRD Bylaw 1330, 2021.
- The provincial government updated the *BC Public Notification Regulation* (PNR) and its definition of "minor amendment" for permits and approvals, which affects which types of permit and approval applications qualify as minor amendments under MVRD Bylaw 1330, 2021.

Guiding Principles

The proposed revisions aim to align with the following principles that provided the foundation for the current air quality management fees in MVRD Bylaw 1330, 2021:

- Minimize the risk to human and environmental health from emissions of air contaminants;
- Assess fees that reflect the potential harmful impacts on human health and the environment;
- Support continuous improvement in air quality by reducing emissions to achieve regional ambient air quality objectives;
- Support the discharger-pay principle, where dischargers such as permit holders and regulated businesses, pay more for emissions that can have more impact;
- Support the user-pay principle, where users who benefit from regulatory services pay for increased service needs;
- Incentivize the reduction of air emissions; and
- Recover regulatory program costs in an effective, fair, and efficient manner.

Proposed Changes to the Fees

Metro Vancouver's air quality management framework has played a vital role in reducing emissions and supporting regional air quality goals to protect human health and the environment. However, an evolving landscape calls for the following proposed bylaw amendments to provide clarity on fee calculations to the regulated community, balance cost recovery with impacts on regulated businesses and regional affordability, and align with updated federal and provincial legislation.

Clarifying the Calculation of Emission Fees for Multi-Category Air Contaminants

Metro Vancouver proposes to clarify that the highest applicable emission fee rate will be charged when an air contaminant meets the definition of more than one class or group of air contaminants because of its physical and chemical properties or health impacts. For example, an air contaminant may be classified as both a metal and a hazardous air pollutant, or as part of TRS compounds and as a specified odorous air contaminant. This approach would support consistency and align fees with the most significant potential impacts of emissions and associated effort for emissions management.

Reducing Fee Rates for Odorous Air Contaminants

Metro Vancouver proposes to adjust the fee structure for odorous air contaminants (OACs) to improve clarity, balance cost recovery with regional affordability, and better reflect how these emissions are currently managed through emission limits and emission measurement requirements in permits and approvals. This adjustment would account for the effects of OACs on health, environment, and the normal conduct of business.

The proposed amendments would:

- reduce the emission fee rates for specified OACs as shown in Appendix 1;
- reduce the maximum emission fee rate for specified OACs not to exceed $10,000 per tonne;
- reduce the emission fee rate for whole emission discharge of OACs to $5 per billion cubic metre odour units where there is an odour unit emission limit in a permit or approval;
- reduce the emission fee rate for whole emission discharge of OACs to $20 per billion cubic metre odour units where there is no odour unit emission limit in a permit or approval;
- extend the use of the 2024 emission fee rate ($800/tonne) for TRS compounds up to 2026;
- phase in increases to the emission fee rates for specified OACs, whole emission discharge of OACs, and TRS compounds until 2030 as shown in Appendix 1 to move closer to recovering the lower to medium range of annual costs for odour management;

- In Schedule B, section 5, align the calculation of the emission fee rate for an OAC not listed in Schedule B, Table 9 with the calculation used to develop the proposed emission fee rates for specified OACs shown in Appendix 1, which takes the form:

  Emission fee rate for OAC =
  Emission fee rate for hydrogen sulphide (H2S) **x** (Odour detection threshold for H2S / Odour detection threshold for OAC)

  where "odour detection threshold" means the lowest concentration of a specified odorous air contaminant that can be detected by an odour panel, as set out in the reference noted for the substance listed in Column A of Table 3 in Appendix 1, or as set out in another reference approved by the district director.

- clarify that if there is a quantity of a specified OAC authorized by permit or approval, the emission fee will be calculated based on that authorized quantity to be consistent with how fees are assessed for all other air contaminants. In cases where the quantity of a specified OAC in the discharge is not stated in a permit or approval, fees will be calculated based on measured concentrations of specified OACs, as the bylaw already stipulates for whole emission discharge of total OACs;
- clarify that in cases where there is no permitted emission limit, and measured emissions of a specified OAC are below the detection limit for the analytical method used, the associated emission fee rate will apply to 25% of the analytical method detection limit for OACs that are in Table 9 and for those that are not.

Updates to Application Fees and Payment of Fees

Reducing Maximum Application Fees for Authorizations

Metro Vancouver proposes to limit the maximum application fee for permits, approvals, and amendments to $450,000. Currently, there is no upper limit on these fees, which can result in relatively high costs for a few businesses with high emissions. This limit would reflect Metro Vancouver's experience with the application process for high-emitting businesses.

Charging Interest on Overdue Payment of Fees

Currently, MVRD Bylaw 1330, 2021 does not include provisions for interest on late payments. Metro Vancouver proposes to charge interest on overdue invoices if payment is not received within 30 days of the invoice date, to encourage timely payments. Overdue accounts would be subject to interest charges of 1.25% per month or 15% per annum, which is the standard interest that Metro Vancouver charges on the type of invoices related to regulation and enforcement. Interest would continue to accrue on outstanding fees even if, as set out under MVRD Bylaw 1082, 2008, the permit or approval is suspended due to non-payment beyond 75 days.

A reinstatement fee will continue to be 50 percent of the total amount of all fees owing at the time a permit or approval is suspended. For clarity, the calculation of the reinstatement fee would not include accrued interest.

Updates to Definitions and Fee Exemptions

Metro Vancouver intends to update definitions and provisions related to air contaminants and fee exemptions to improve clarity and alignment with federal and provincial legislation. The updates will:

- refine classifications for hazardous air pollutants, volatile organic compounds, and other regulated air contaminants to avoid overlaps and improve transparency;
- align definitions with recent regulatory changes to the CEPA and its list of toxic substances.

Metro Vancouver will update the definition of "minor amendment" to align with the relevant parts of the updated definition in the PNR (changes in bold), which are:

- a decrease in the authorized quantity of the discharge, **emission or stored material**;
- an increase in the authorized quantity of the discharge, **emission or stored material** that does not exceed 10% of the authorized quantity;
- 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;
- a change in a monitoring program; or
- 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.

This update will expand the types of permit and approval applications that qualify for the application fee for minor amendments. The existing definition and fee for "administrative amendment" will remain unchanged.

These updates aim to support clear and consistent regulatory application while achieving the goals of the *Clean Air Plan*.

Providing Feedback and Comments

Metro Vancouver is seeking input on the proposed amendments to *MVRD Air Quality Management Fees Regulation Bylaw No. 1330, 2021*, as outlined in this discussion paper. Feedback from the public, regulated businesses, and other interested and affected parties will help shape the final amendments.

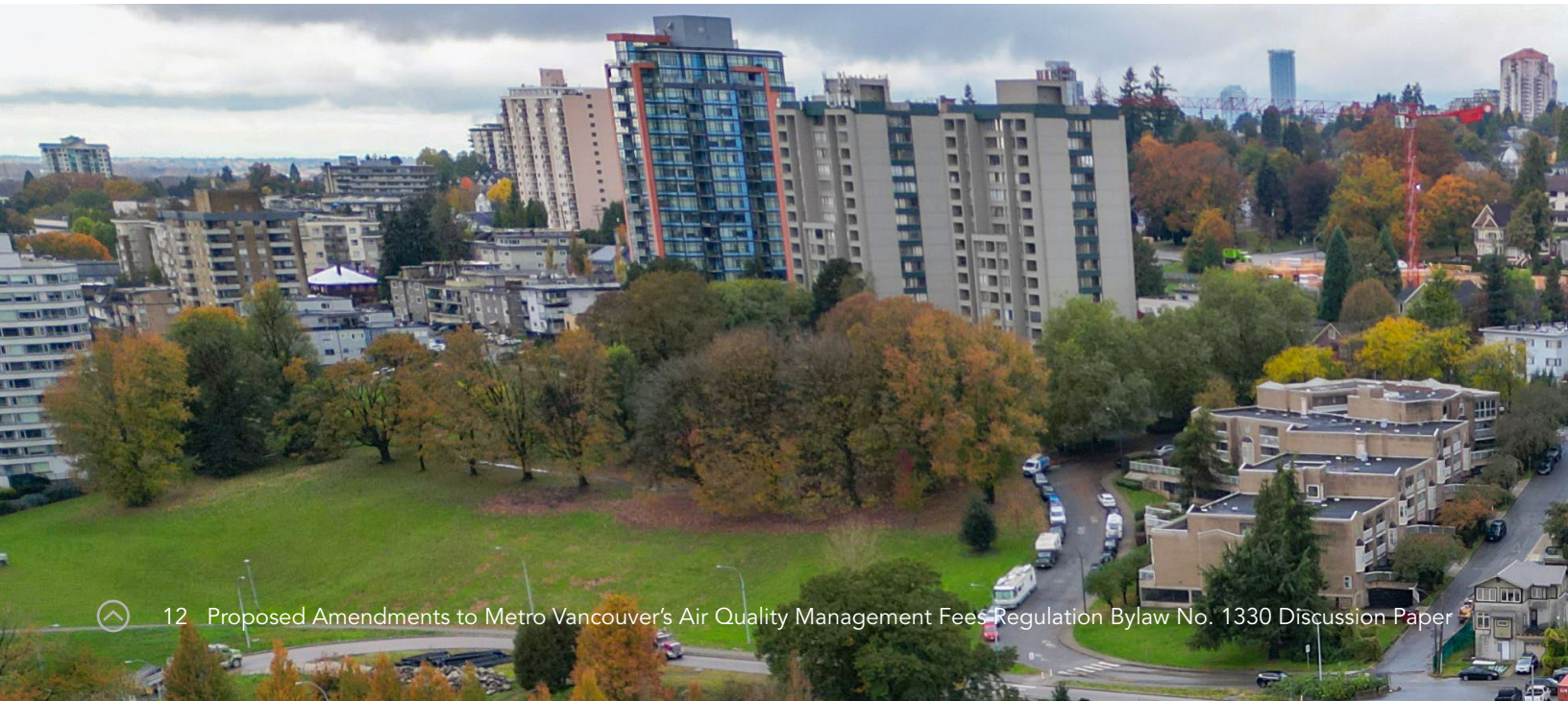
The MVRD Board will receive a summary of the feedback collected to inform their decision-making process. Metro Vancouver staff and contractors will treat the comments received with confidentiality. However, comments and any information identifying you as the source may be subject to disclosure under the BC *Freedom of Information and Protection of Privacy Act*.

How to Provide Feedback

Submit your feedback by August 1, 2025, via email to AQBylaw@metrovancouver.org

Visit Metro Vancouver's website for additional engagement opportunities (search for "air quality fees"). If you have any questions or require further information, please call 604-432-6200.

Thank you for taking the time to provide input on the proposed amendments to MVRD Bylaw 1330, 2021. Your feedback is valuable and will be carefully considered in the development of the updated bylaw.



Appendix 1

Metro Vancouver proposes to replace the fee rates for permitted levels of specified odorous air contaminants (OACs) in Table 9 of Schedule B in MVRD Bylaw 1330, 2021 for January 1, 2025 and onward with the following table of fee rates. Proposed fee rates could take effect in 2026 or sooner if possible. The emission fee for a specified OAC is based on the odour detection threshold of the specified OAC from Nagata, 2003a. In cases where no threshold is available in Nagata, 2003 for a specified OAC, another reference is used as noted in the table below.

The proposed fee rates for measured levels of specified OAC would follow the same approach as the current bylaw and be calculated as four times the permitted fee rate.

The maximum proposed fee rates for permitted and measured levels of specified OAC would be limited to $10/kg in 2026 or sooner if possible, increasing in phases until 2030 to between $35/kg and $85/kg to recover the lower to medium range of annual costs for odour management. The current maximum fee rate for specified OACs is $1,000/kg.

Table 1. Fee rates for permitted levels of Total Reduced Sulphur (TRS) compounds

Odorous Air Contaminant	**Fee rate in 2024 (current bylaw) ($/tonne)**	**Fee rate in 2025 (current bylaw) ($/tonne)**	**Proposed fee rate in 2026 ($/tonne)**	**Option 1 Potential fee rate in 2030 (lower range of historic annual costs for odour management) ($/tonne)**	**Option 2 Potential fee rate in 2030 (medium range of historic annual costs for odour management) ($/tonne)**
Total Reduced Sulphur (TRS)	800	N/A	800	$2,900	$7,000

Table 2. Fee rates for permitted and measured levels of Odour Units

Odorous Air Contaminant	Fee rates in 2025 (current bylaw) ($/billion cubic metres)	Proposed fee rates in 2026 ($/billion cubic metres)	Option 1 Potential fee rates in 2030 (lower range of historic annual costs for odour management) ($/billion cubic metres)	Option 2 Potential fee rates in 2030 (medium range of historic annual costs for odour management) ($/billion cubic metres)
Permitted Odour Units (OU)*	60	5	20	40
Measured Odour Units (OU)	240	20	80	160

*There are no permits or approvals that specify permitted levels of odour units. The amendment to the fee rate for permitted odour units is proposed to maintain consistency with how fee rates for permitted and measured OACs are determined.

Table 3. Fee rates for permitted levels of specified odorous air contaminants a

Odorous Air Contaminant	Fee rates in 2025 (current bylaw) ($/kg)	Proposed fee rates in 2026 ($/kg)	Option 1 Potential fee rates in 2030 (lower range of historic annual costs for odour management) ($/kg)	Option 2 Potential fee rates in 2030 (medium range of historic annual costs for odour management) ($/kg)
1-nonene	22	0.22	0.80	1.91
1-octene	13	0.25	0.91	2.18
2,3-pentanedione [b]	2.8	0.05	0.20	0.48
2,6-nonadienal [b]	810	10.00	35.00	85.00
2-chlorophenol [b]	15	0.29	1.07	2.56
2-heptanone (methyl n-amyl ketone)	1.8	0.001	0.002	0.005
2-methyl butanoic acid [b]	7.5	0.03	0.13	0.30
2-methyl-1-propanol (isobutanol)	1.8	0.14	0.53	1.27
2-methylpropionoic acid (isobutyric acid)	11.1	0.21	0.77	1.85
3-methyl butanoic acid (isovaleric acid)	181	3.51	12.80	30.69
3-methylbutanal (isovaleraldehyde)	171	3.24	11.84	28.39
Acetic acid (ethanoic acid)	4.0	0.08	0.28	0.68
Allyl sulphide	58	1.71	6.25	14.99
Butanal [b]	30	0.04	0.15	0.36
Butanoic acid (butyric acid)	88	1.67	6.09	14.61
Butyl mercaptan	1,000	10.00	35.00	85.00
Decanal (decaldehyde, capradehyde) [b]	23	0.19	0.71	1.70
Diacetyl	341	6.49	23.69	56.80
Diallyl disulphide	58	0.86	3.13	7.50
Diethyl disulphide	6.0	0.10	0.37	0.88
Diethyl sulphide	493	9.39	34.27	82.16

Odorous Air Contaminant	Fee rates in 2025 (current bylaw) ($/kg)	Proposed fee rates in 2026 ($/kg)	Option 1 Potential fee rates in 2030 (lower range of historic annual costs for odour management) ($/kg)	Option 2 Potential fee rates in 2030 (medium range of historic annual costs for odour management) ($/kg)
Dimethyl disulphide	7.0	0.13	0.49	1.18
Dimethyl sulphide	7.8	0.15	0.55	1.31
Dimethyl trisulphide [b]	6.8	0.13	0.48	1.15
Ethyl isobutyrate	575	10.00	35.00	85.00
Ethyl isovalerate	868	10.00	35.00	85.00
Ethyl mercaptan (ethanethiol)	1,000	10.00	35.00	85.00
Ethyl n-butyrate	316	6.01	21.95	52.63
Ethyl n-valerate	103	1.95	7.12	17.07
Ethyl propionate	2.1	0.03	0.13	0.30
Hexanal (hexaldehyde) [b]	54	0.02	0.07	0.17
Hexanoic acid (caproic acid)	21	0.40	1.46	3.51
Hydrogen sulphide	105	2.00	7.30	17.50
Isoamyl mercaptan	1,000	10.00	35.00	85.00
Isobutyl acetate	1.6	0.03	0.11	0.26
Isobutyl acrylate	13	0.25	0.90	2.15
Isobutyl amine	136	0.25	0.93	2.23
Isobutyl isovalerate	1.8	0.05	0.17	0.40
Isobutyl mercaptan	1,000	10.00	35.00	85.00
Isobutyl n-butyrate	6.4	0.13	0.49	1.17
Isohexanoic acid	32	0.60	2.20	5.26
Isooctanol	1.2	0.02	0.08	0.20
Isopentanol	9.8	0.19	0.68	1.63
Isopropyl mercaptan	1,000	10.00	35.00	85.00
Isopropyl n-butyrate	2.7	0.04	0.14	0.34
Isopropyl propionate	3.1	0.06	0.21	0.51
Isopropylbenzene	1.5	0.04	0.16	0.37
Isobutylaldehyde	58	1.11	4.04	9.69

Odorous Air Contaminant	Fee rates in 2025 (current bylaw) ($/kg)	Proposed fee rates in 2026 ($/kg)	Option 1 Potential fee rates in 2030 (lower range of historic annual costs for odour management) ($/kg)	Option 2 Potential fee rates in 2030 (medium range of historic annual costs for odour management) ($/kg)
Methacrolein	2.5	0.05	0.17	0.41
Methyl acrylate	4.9	0.09	0.34	0.81
Methyl allyl sulphide	119	2.26	8.26	19.81
Methyl isoamyl ketone	6.1	0.13	0.48	1.16
Methyl isobutyrate	7.6	0.14	0.52	1.24
Methyl isovalerate	5.7	0.11	0.40	0.96
Methyl mercaptan (methanethiol)	437	8.30	30.29	72.62
Methyl n-butyrate	20	0.04	0.14	0.34
Methyl n-valerate	5.7	0.11	0.40	0.96
Methylamine	2.2	0.03	0.09	0.22
n-Amyl mercaptan	1,000	10.00	35.00	85.00
n-Butyl acrylate	21	0.44	1.60	3.83
n-Butyl n-butyrate	2.1	0.04	0.15	0.35
n-Butylaldehyde	30	0.58	2.11	5.06
n-Butylbenzene	1.3	0.03	0.10	0.24
n-Decanol	12	0.25	0.91	2.17
n-Decylaldehyde	23	0.44	1.59	3.81
n-Heptanol	2.6	0.05	0.18	0.44
n-Heptylaldehyde	71	1.34	4.88	11.69
n-Hexanol	2.4	0.05	0.17	0.41
n-Hexyl acetate	5.7	0.12	0.44	1.04
n-Hexyl mercaptan	827	10.00	35.00	85.00
n-Hexylaldehyde	52	1.00	3.64	8.72
n-Nonanol	11.3	0.22	0.80	1.91
n-Nonylaldehyde	30	0.58	2.11	5.06
n-Octylaldehyde	1,000	10.00	35.00	85.00
Nonanoic acid b	4.6	0.09	0.32	0.77
n-propyl isobutyrate	6.3	0.12	0.44	1.05

Odorous Air Contaminant	Fee rates in 2025 (current bylaw) ($/kg)	Proposed fee rates in 2026 ($/kg)	Option 1 Potential fee rates in 2030 (lower range of historic annual costs for odour management) ($/kg)	Option 2 Potential fee rates in 2030 (medium range of historic annual costs for odour management) ($/kg)
n-propyl isovalerate	182	3.83	13.99	33.54
n-propyl n-valerate	3.1	0.06	0.21	0.51
Octanal	1,000	0.08	0.29	0.71
p-Diethylbenzene	28	0.67	2.46	5.91
Pentanal (valeraldehyde)	42	0.79	2.89	6.92
Pentanoic acid (valeric acid)	400	7.39	26.99	64.70
p-Ethyltoluene	1.5	0.03	0.12	0.28
Propanal (propionaldehyde)	25	0.48	1.76	4.21
Propionic acid	3.5	0.07	0.24	0.58
Propyl mercaptan (propanethiol)	1,000	10.00	35.00	85.00
Propylbenzene	3.1	0.09	0.34	0.82
Pyridine	143	0.01	0.02	0.05
sec. Butyl mercaptan	542	10.00	35.00	85.00
sec.Butyl acetate	5.3	0.10	0.37	0.88
tert. Butyl mercaptan	561	10.00	35.00	85.00
Tetrahydrothiophene	27	0.51	1.87	4.47
Thiophene	31	0.59	2.16	5.19
Trimethylamine	107	10.00	35.00	85.00
Undecanal b	3.3	0.10	0.35	0.83

a The fee rates for columns 3, 4, and 5 in Table 3 were determined using the odour detection threshold values for individual odorous air contaminants from the following study: Nagata, Yoshio, Measurement of Odor Threshold by Triangle Odor Bag Method, 2003. References for other compounds without odour detection thresholds in the Nagata list were taken from:

b Devos, M, Standardized human olfactory thresholds, 1990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