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## Position Paper

on

# Metro Vancouver's Proposed Air Emission Regulation for Cannabis Production and Processing

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CANNABIS CULTIVATORS OF B.C.  
British Columbia, Canada

## BACKGROUND





Since the beginning of legalization of recreational cannabis in Canada five years ago, the industry has experienced challenging regulatory and economic conditions, resulting in consolidation and contraction for businesses throughout the supply chain, including licensed producers of cannabis. This contraction has put at risk some of the important public policy aims that legalization was meant to address, including, and especially, providing an increased measure of public safety by helping to eliminate the illicit cannabis market in Canada.



Metro Vancouver (MVRD) intends to put forward [a proposed regulation](#) that will set out several requirements for producers to manage cannabis air emissions. This regulation has been proposed under Metro Vancouver’s devolved authority to “prohibit, regulate and otherwise control and prevent the discharge of air contaminants.” The proposed regulation has been advanced on the basis that volatile organic compounds (VOCs) – which are odorous – are emitted by cannabis production and processing and are air contaminants which contribute to the formation of ozone, having the potential to harm human health, property, and the environment.

In May 2019, the MVRD Board directed staff to proceed with engagement on the proposed approach for managing emissions from cannabis production and processing. In July 2021, MRVD proceeded with the next phase of engagement. In September 2021, MVRD endorsed the [Clean Air Plan](#), which includes a strategy (4.1.7) to develop an emission regulation for cannabis production and processing.

Cannabis producers across the region disagree with MVRD’s assumptions. This position paper summarizes the reasons for their concerns with MVRD’s continued intent to develop an Emissions Regulation for Cannabis Production and Processing.

## THE FACTS

<p><i>Cannabis production releases volatile organic compounds (VOC).</i></p> <p> VOCs are part of the natural growth cycle of all growing things, and released by trees, crops and livestock. All crops, including blueberries, corn and tomatoes, emit VOCs.</p>	<p><i>Odorous emissions are a major source of complaints in Metro Vancouver.</i></p> <p> Accounting for production closures, the whole Metro Vancouver region averages 44 odour complaints per year, 67% of which are of unknown origin.</p>
<p><i>The rationale for pursuing an emission regulation for this sector continues to be a point of contention.</i></p> <p> Regulating cannabis odours is rooted in stigma and sets a concerning precedent for all agriculture. The contribution of the cannabis industry is small, estimated to represent 0.2% of total VOC emissions in Metro Vancouver.</p>	<p><i>VOC emissions from cannabis production are air contaminants that can contribute to the formation of harmful ground-level ozone.</i></p> <p> There is no scientific evidence to support this claim. Peer-reviewed research shows there is a low VOC emission rate related with cannabis production and a negligible impact on the formation of ozone.</p>

<p><i>Findings indicate that assumptions and methodologies can have a significant impact on resulting emission estimates.</i></p> <p> Emission estimates made by Metro Vancouver and the Ministry of Agriculture and Food are not consistent and have led to different conclusions about potential VOC impacts from cannabis production. Technology does not exist today to measure actual levels of VOC emissions coming out of a plant or facility in real time.</p>	<p><i>Greenhouses used for vegetable production were retrofitted for cannabis production, but these facilities were not designed or constructed to collect and treat air contaminants.</i></p> <p> All licensed producers in Canada are required by Health Canada to deploy odour abatement technology in their facilities, already capturing some of the VOCs in the greenhouse using filtration systems.</p>
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## DISCUSSION

In summary, cultivators' concerns with these regulations are:

- a) A lack of science
- b) Flawed or inconsistent data estimates
- c) Odour complaints relied upon as a regulating mechanism
- d) Regulatory overload and duplication
- e) A concerning precedent for all agriculture
- f) Detrimental economic impacts

### A. A Lack of Science

There is no agreed upon scientific evidence to demonstrate that VOC emissions contribute to the formation of ozone and are air contaminants with the potential to harm human health, property, and the environment. Furthermore, any references relied on by MVRD themselves point to a need for further assessment and research.

In contrast to MVRD's claims:

1. Health Canada states that "many substances that can be smelled outside aren't present at high enough levels to cause long-term health effects, and the terpenes that cause cannabis related odours are not known to be directly harmful to human health."<sup>1</sup>
2. This is supported by the results of the BC Ministry of Agriculture's study which found cannabis "agricultural activities represent a small fraction of the region's overall emissions, their role in ground-level ozone and fine aerosol formation in MV is still expected to be small."<sup>2</sup>
3. The first-ever peer-reviewed study on the cannabis VOCs was recently published in the Journal of the Air and Waste Management Association, conducted by the Air Pollution Control Division, Colorado

<sup>1</sup> [Cannabis odours and odour control](#), Health Canada (2022).

<sup>2</sup> [Relative Impact of Volatile Organic Compound Emissions from Agriculture on Air Quality of Urban Centres](#) (Canadian Agriculture Partnership prepared for BC Ministry of Agriculture, Food, and Fisheries). Deanne Durward et al. (Ramboll Associates, 2021).

Department of Public Health and Environment.<sup>3</sup> This latest study concludes that VOC emissions from large, high-volume production facilities have a low VOC emission rate and a “negligible impact” on the formation of ozone and fine particulate matter that have been associated with human health, visibility, and environmental impacts.

4. The B.C. Ministry of Agriculture’s recent study further underscores the uncertainty in VOC emission estimates.<sup>4</sup> This reflects the current state of scientific literature that even Metro Vancouver studies have noted in their references.

As the foregoing suggests, a scientific evidence standard has simply not been met. Any proposed regulations MVRD should be based on established science and evidence.

## **B. Flawed or Inconsistent Data Estimates**

The B.C. Ministry of Agriculture’s study, released in September 2021, focused on characterizing VOCs from various agricultural commodities in the Metro Vancouver area and their contribution to the overall VOC emissions and air quality in the region.<sup>5</sup> The emission estimates put forward in the two reports from the Ministry and MVRD previously, relative to cannabis, do not align. In fact, the discrepancy between their two estimates is of fundamental concern.

And the gap is not only in emission estimates, but also in relation to estimates of the size of cannabis production in the region. MVRD has calculated cannabis VOC contribution figures based on industry growth estimates at the onset of legalization, a time when producers were coming to market. The reality today is that BC producers face tremendous regulatory challenges and are experiencing a contraction marred with consolidation and insolvency, with many producers shutting down since early calculations were made. As a result, MVRD industry contribution calculations are massively overestimated.

## **C. Odour Complaints Relied Upon as a Regulating Mechanism**

It would appear MVRD developed a rationale to regulate VOCs in an attempt to regulate odours from cannabis production. However, MVRD is only capable of regulating odours from farm operations operating under the jurisdiction of the *Farm Practices Protection Act* (FPPA) only if VOC emissions are found to meet the scientific standard of being injurious to human health. Again, this is a standard that has not been met.

Outside of VOC issues, the FPPA already has established mechanisms place to manage odour issues from farm operations. Monitoring and reporting requirements related to odour remains unenforceable outside of the oversight the FPPA already provides.

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<sup>3</sup> [Terpene exhaust emissions and impact ozone modeling from cannabis plants at commercial indoor cultivation facilities in Colorado](#). Journal of the Air & Waste Management Association (2022).

<sup>4</sup> [Relative Impact of Volatile Organic Compound Emissions from Agriculture on Air Quality of Urban Centres](#) (Canadian Agriculture Partnership prepared for BC Ministry of Agriculture, Food, and Fisheries). Deanne Durward et al. (Ramboll Associates, 2021).

<sup>5</sup> [Relative Impact of Volatile Organic Compound Emissions from Agriculture on Air Quality of Urban Centres](#) (Canadian Agriculture Partnership prepared for BC Ministry of Agriculture, Food, and Fisheries). Deanne Durward et al. (Ramboll Associates, 2021).

Of course, odours are a concern – and one which cannabis producers takes seriously. Cultivators already implement best-in-class odour mitigation technologies based on requirements put in place by Health Canada.

#### **D. Regulatory Overload and Duplication**

The federal regulations that govern licensed cannabis producers already provide an effective means of limiting VOCs by requiring production facilities be equipped with systems that filter air to prevent the escape of odours. This is a condition of each Production License from Health Canada. While it is understood that dual compliance between federal regulatory authorities and Metro Vancouver is possible, this consequential intersection creates considerable frustration with consideration to the original intent of the Cannabis Act as enforced by Health Canada.

#### **E. A Concerning Precedent for All Agriculture**

Cannabis is a crop like any other, our right to farm is protected in the Farm Act. Regulating VOCs, inclusive of using VOCs as a proxy for odour management, sets a concerning precedent for other agricultural industries within the MVRD boundary<sup>6</sup> and across the country. Agricultural stakeholders have raised concerns about the precedent this bylaw would set, and the impact it could have on the viability of agriculture in MVRD if extended to other sectors.

#### **F. Detrimental Economic Impacts**

Both licensed cannabis producers and other agricultural stakeholders have raised concerns about the potential monetary and non-monetary costs of proposed regulations. The effect of these regulations will add significant pressures to cultivation businesses in technology upgrades, construction and engineering costs, and potential impacts to production due to cessation or ramp up of cultivation. These regulations will constrict and potentially eliminate cannabis operations in the region, thereby increasing the illicit supply of cannabis and reducing public safety overall.

It has been recommended by the provincial government that MVRD conduct a thorough economic impact assessment of proposed regulations, with a particular focus on identifying the costs it would impose on licensed producers, and how it would add to their cumulative regulatory burden. This assessment has not been completed or quantified to date.

Furthermore, MVRD is the only jurisdiction in Canada considering implementing these changes. They will put the region at a disadvantage and create serious impediments to cannabis cultivation in the province.

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<sup>6</sup> [Metro Vancouver is a partnership of 21 municipalities, one electoral area and one treaty First Nation.](#)

## CONCLUSION

While we share the goals of protection of human health and our environment, we do not believe these regulations will have the effect that Metro Vancouver seeks. In fact, we believe it will have serious unintended consequences for our already struggling sector.

Additional layers of regulation:

1. Increases the costs of operating,
2. Discourages growers from transitioning to the legal market, and
3. Prohibits new entrants into our industry.

BC producers already face tremendous regulatory challenges and are experiencing a contraction marred with consolidation and insolvency. This proposal will put a serious chokehold on the industry in this province and puts at risk a new agricultural sector that employs thousands of people across BC and contributes hundreds of millions in tax revenue and other positive economic impacts.

**We urge Metro Vancouver to abandon these regulations.**

**In fairness to the industry and residents, any regulation should be based on accurate, factual information, and not before the science and evidence exist to support it. Information should continue to be gathered, inclusive of further scientific studies becoming available, understanding the impacts (if any) of cannabis VOC emissions, and conducting a full economic impact assessment.**