From: "Johnston, Sadhu" <Sadhu.Johnston@vancouver.ca>
To: "Direct to Mayor and Council - DL"
CC: "City Manager's Correspondence Group - DL"
"Kelley, Gil" <Gil.Kelley@vancouver.ca>
"Nelms, Cheryl" <Cheryl.Nelms@vancouver.ca>
"Singh, Sandra" <Sandra.Singh@vancouver.ca>
"Smith, Doug \(Sustainability\)" <doug.smith@vancouver.ca>
Date: 11/20/2019 5:39:49 PM
Subject: Memo - Air Quality - RTS 013285
Attachments: Memo to Council -Air Quality -RTS 013285.pdf

Dear Mayor and Council,

Please find attached a joint memo from Gil Kelley, Sandra Singh, and Cheryl Nelms, in response to the Council motion on Reducing Truck Pollution in Clark-Knight Corridor and Other City Streets (RTS 013285).

In summary:

- Air quality is a complex issue with multiple stakeholders and no single responsible group.
- Despite increased traffic and growth air quality is improving in the region.
- We don't have the detailed data to make good policy decisions so City of Vancouver staff will work with the appropriate agencies to seek this data to assist with policy development.

Should you have questions, please contact Doug Smith, Director of Sustainability at 604.829.4308 or Doug.Smith@vancouver.ca.

Best,
Sadhu

Sadhu Aufochs Johnston | City Manager
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Pronouns: he, him, his

CITY OF VANCOUVER

The City of Vancouver acknowledges that it is situated on the unceded traditional territories of the Musqueam, Squamish, and Tsleil-Waututh

CITY OF VANCOUVER

PLANNING, URBAN DESIGN & SUSTAINABILITY
General Manager's Office

MEMORANDUM

November 14, 2019

TO: Mayor and Council

CC: Sadhu Johnston, City Manager
Paul Mochrie, Deputy City Manager
Lynda Graves, Administration Services Manager, City Manager's Office
Rena Kendall-Craden, Civic Engagement and Communications Director
Katrina Leckovic, City Clerk
Neil Monckton, Chief of Staff, Mayor's Office
Alvin Singh, Communications Director, Mayor's Office
Anita Zaenker, Chief of Staff, Mayor's Office
Doug Smith, Director of Sustainability

FROM: Gil Kelley, General Manager, Planning, Urban Design and Sustainability
Cheryl Nelms ,Acting General Manager, Engineering Services
Sandra Singh, General Manager of Arts, Culture and Community Services

SUBJECT: Reducing Truck Pollution in Clark-Knight Corridor and Other City Streets (RTS 013285)

This memo is in response to Council Motion #6 from the Standing Committee on Policy and Strategic Priorities meeting on June 12, 2019, "Reducing Truck Pollution in Clark-Knight Corridor and Other City Streets". Five speakers spoke in support of the motion at the meeting.

Background

Air quality is a simple issue for most people; we all agree it's important that everyone breathe clean air. Ensuring clean air however is a highly complex issue given the many influencing factors. Local air quality is impacted by federal vehicle emission regulations, local business activity (freight and shipping), transportation design (truck routes, bus routes, commute routes), urban design, land use planning, building codes, urban forestry, local industry (pollution point sources), local fleet choices (trucking, buses, couriers, taxis), and climate change (specifically heat and forest fire smoke).

Based on these factors, no single entity is responsible for air quality management in Vancouver and addressing it comprehensively requires the engagement of various sectors. Metro Vancouver is responsible for regulating and managing air contaminates in the region, however street level and indoor air quality are not actively managed. Air quality at all scales, as well as indoor and outdoor air quality, are linked by pollution sources and, more importantly, by the negative impacts on society. Some groups disproportionately suffer the associated negative health impacts such as: children; the elderly; those struggling with chronic health problems; and

equity seeking communities including Indigenous, people of colour, and those who are low income.

Air quality monitoring completed by Metro Vancouver over the last decade indicates that most common air contaminant levels have been improving, even while population and traffic in the region increases. There is significant overlap between the sources of greenhouse gases and common air contaminants so reductions to protect public health can often (but not always) reduce greenhouse gases, and vice versa[1]. International health research indicates that there are continued benefits from reducing ambient concentrations of common air contaminants, even when those concentrations are already low. Increasingly, attention is being paid with respect to local street / neighborhood level variations in air quality that may be masked by region wide monitoring which tends to "average" out local level differences.

The City of Vancouver is actively pursuing changes within our control that will have positive impacts on air quality. These include better land use planning, urban design, increasing green infrastructure and urban forests, transportation mode shift away from cars, replacing fossil-fueled vehicles with electric vehicles, and healthier building codes. We are also collaborating with partners including businesses, fleets, other levels of government and TransLink to advocate for changes that will improve local air quality. Our work has contributed to Translink's agreement to buy only zero emission buses after 2025, the Province putting a healthier building code (Step Code) in place, and Vancouver hosting a Zero Emission Freight Academy with C40 Cities in September 2019 to learn from other air quality leaders such as London, Amsterdam and Oslo.

However, much of this work has been ad hoc and we need a more holistic approach to this issue if we're going to accelerate our progress. In response to Council's motion on air quality, we have begun internal conversations as well as conversations with Metro Vancouver, the Vancouver School Board, and Vancouver Coastal Health (VCH). We plan to meet with these stakeholders, the Port of Vancouver, and others to determine how to best approach this issue comprehensively.

Vancouver has also joined the C40 Air Quality Network to allow us to learn from other cities and best practices from around the world.

Air quality management is led by Metro Vancouver but City of Vancouver staff realize the City and likely VCH need to play a stronger leadership role and focus more on this important topic. City staff will work with stakeholders and determine what role the City of Vancouver can play to better achieve the outcomes we're seeking.

Please find below the specific responses to the requests found in the motion.

A. THAT Council request that the Mayor and Vancouver's Metro Vancouver delegates to: 1) Seek an update from Metro Vancouver on progress made on its Air Quality and Climate Change Plan;

[1] Metro Vancouver Draft Clean Air Plan

2) Initiate actions to strengthen the region's guidelines for permitted pollutants such as nitrogen dioxide; and
3) Call for a review of BC Ministry of Transportation's AirCare ON-ROAD Program specifically as pertains to the monitoring of heavy-duty truck diesel particulate matter emissions in urban settings.

Metro Vancouver's Clean Air Plan is currently under development and entering a broad engagement phase. This is the fourth in Metro Vancouver's series of Air Quality Management Plans. The plan aims to further reduce regional air contaminant emissions, including greenhouse gases, over the next decade. The Clean Air Plan is an action plan that directly supports the longer-term, strategic goals of Climate 2050 (Metro Vancouver's climate action plan). Both plans are organized around similar issue areas. Discussion Papers, used as the basis for engagement, will propose targets and sector-based goals and example actions for all major sources of air contaminants in our region. These will be available October, 2019. Vancouver staff and delegates will continue to work with Metro Vancouver to ensure this plan results in material air quality improvements for Vancouver.

Metro Vancouver establishes regional air quality objectives, and periodically updates its objectives, as appropriate. The air quality objectives are criteria against which measured air quality is compared. The strengthening of these objectives is in line with a principle of continuous improvement in air quality. In May 2019, the Metro Vancouver Board directed staff to consult on proposed changes to Metro Vancouver's ambient air quality objectives. New federal objectives are coming into effect for nitrogen dioxide (NO2) and ground-level ozone, and the provincial government now has a more stringent objective for carbon monoxide (CO). Consultation on these updated objectives began in June, 2019 and recommended updates are expected to be presented to the board in November. See report 5.5 in this agenda package.

Metro Vancouver has been participating in a Near-Road Air Quality Monitoring Pilot Study in collaboration with the National Air Pollution Surveillance Program (Environment and Climate Change Canada), the University of Toronto and the Ontario Ministry of Environment. The final report on study findings, including results from monitoring programs in both Vancouver and Toronto was recently published and can be found here.

City of Vancouver staff will work with Metro Vancouver staff upon completion of their pilot study mentioned above to approach the BC Ministry of Transportation regarding a review of their AirCare ON-ROAD Program.

B. THAT Council direct staff to investigate the status of actions the Port of Vancouver, the BC Government, TransLink, Transport Canada and the trucking industry are considering to develop fuel options that reduce emissions from heavy trucks using the Clark-Knight Corridor and other heavy truck routes and report back what actions Council can take to ensure speedy implementation;

Vancouver Fraser Port Authority: Under the port authority's Truck Licensing System, approximately 1,700 container trucks are approved to access the Port of Vancouver. Since 2008, truck approvals have been subject to meeting certain minimum requirements set out by

the port authority, including increasingly stringent environmental requirements for engine year and emission controls. Starting in 2009, the port authority began the phased-in mandatory installation of approved emission control devices in all 2006 and older trucks, reducing particulate matter, per truck by 20 to 25 per cent. Also, the port authority has gradually increased the minimum truck year requirement and most recently in August 1, 2019, any truck/engine seeking approval in the Truck Licensing System must be a 2014 or newer truck. Beginning in 2022, a 10-year rolling truck age policy will be in effect, enforcing that trucks meet the standards of a 10 year-old truck, or newer. The port authority, with the Province of BC and TransLink, has also been working on a Clean Trucking Initiative pilot program that is focused on the exploration of alternative fuel sources for container trucks. The program will examine and trial new fuels/technologies, and the accompanying infrastructure, to support the evolution of the container trucking industry.

Province: The CleanBC Plan details the pathway the Province is pursuing to meet their greenhouse gas emissions reduction targets (40 per cent below 2007 levels by 2030). Under CleanBC, the Province is partnering with the British Columbia Trucking Association (BCTA) to deliver a heavy-duty vehicle efficiency program that will help lower greenhouse gas emissions and help commercial truck drivers spend less money on fuel. The Province has implemented a Special Use Vehicle Incentive to encourage fleets to switch heavy duty trucks to zero emission. They have also mandated that every new car on the road will be zero emission by 2040 – which will also significantly reduce air pollution in Vancouver.

TransLink: TransLink completed the Regional Goods Movement Strategy (RGMS) in 2017 which identified a series of policies to support quieter, cleaner, and lower-carbon goods movement. The RGMS was also the impetus for establishing the Greater Vancouver Urban Freight Council, which is a diverse group of public and private sector organizations that routinely meet to collaborate and engage on regional initiatives that can help support more efficient and cleaner urban goods movement. TransLink has also committed to only buying zero emission buses starting in 2025 and have already started trialing battery electric buses to complement their already electric trolley bus fleet. They have developed a Low Carbon Fleet Strategy to transition their whole fleet to clean and green vehicles.

Transport Canada: In June 2019 the Canadian Government signed an MOU to align emissions regulations with California and specifically the California Air Resources Board (CARB). The agreement commits Canada and California to work together on their respective regulations to cut down on greenhouse gas pollution from vehicles like cars, pickup trucks and SUVs. Canada has also revised heavy-duty vehicle emissions regulations that will reduce greenhouse gases from on-road heavy-duty vehicles, engines, and trailers. The regulations will introduce stronger standards for vehicles and engines in model year 2021, and they will increase in stringency up to model year 2027. Once the updated regulations are fully phased in, some vehicle-types can expect carbon pollution reductions of up to 25 percent from model year 2027 heavy-duty vehicles. The regulations will also improve air quality in Canada and reduce health issues related to air pollution, such as asthma and cardiovascular diseases.

City staff will continue to work more closely with these organizations and industry through the recently initiated Urban Freight Strategy that will be focused on the advancement of zero emission freight solutions within the City of Vancouver, which will also help address other

livability challenges such as noise and vibration. In addition to other key transportation goals, the development of this citywide policy document will aim to reduce the impact of pollution caused by goods movement, with special recognition of the Clark-Knight corridor.

C. ***Council direct staff to support Council-led motions to be submitted to the next Union of BC Municipalities and Federation of Canadian Municipalities meetings to seek support for significant strengthening of provincial and federal regulations restricting traffic pollution, particularly of particulates (soot) emitted by heavy trucks as well as requiring fuel alternative that significant reduce pollution on major roads.***

2019 related UBCM Resolution B143: Therefore be it resolved that local governments call on the Governments of Canada and British Columbia to fully implement their commitment in the Pan-Canadian Framework on Clean Growth and Climate Change, to shift investments "from higher to lower-emitting types of transportation".

2020 City of Vancouver Motion – submitted for next year's UBCM meeting: Whereas the high number of older, heavy-duty diesel trucks travelling back and forth to the Port of Vancouver exposes homes, schools and businesses lining Vancouver's Clark-Knight Corridor to significant traffic pollution, according to a July 2018 study by University of Toronto professors in collaboration with Environment and Climate Change Canada, the Ontario Ministry of Environment, Conservation and Parks, and Metro Vancouver;

And whereas exposure to high levels of traffic pollution is linked to increased risk of residents and workers developing respiratory diseases, such as asthma and heart disease, according to Health Canada. Of particular danger is soot, which is indicative of diesel exhaust, a carcinogen associated with lung cancer;

And whereas the study's authors warned that elevated levels of traffic pollution can be detected as far as 250 metres from major roads, putting millions across the country and thousands living in Vancouver at risk of suffering serious health issues from living on or near major roads;

Therefore be it resolved that UBCM lobby the Provincial and Federal government to significantly strengthen regulations restricting traffic pollution, particularly of the particulates (soot) emitted by heavy-duty vehicles as well as requiring fuel alternatives that significantly reduce pollution on major roads.

D. ***That Council direct staff, as part of the city wide planning process, to examine the city's zoning, building codes, and planning policies and practices, such as prioritizing placement of multi-family buildings on arterials, to determine that the same standards of health and safety are applied equally to all residents****.*

The intersection of traffic-related air pollution (TRAP) and built form will be incorporated as a major consideration into the Climate Emergency Response and the City-wide Plan as part of Big Move 1 – Walkable Complete Communities. It is recommended that this approach be reviewed by Council as part of these two programs, as opposed to as a stand-alone initiative. Reporting

on the Climate Emergency Response is expected in fall of 2020 and the City-wide Plan is expected in 2022.

Staff anticipate partnering closely with VCH in the development of the City-wide plan and advancing measures on the healthy built environment amongst other opportunities. VCH and the City currently work together to implement the Healthy City Strategy and on issues related to childcare and air quality management.

First steps in air quality management will involve determining where and when air pollution is impacting Vancouverites, the differences between indoor and outdoor air quality, and what the causal factors are. Staff will work with VCH and Metro Vancouver as well as academia on opportunities to research and initiate real time indoor and outdoor air quality monitoring. Once the issues are well defined and options to lower risk are identified, staff will work with the other organizations to educate the public about risks and how to manage them. Ideally this work will also inform future policy development at the City, Metro and provincial level and may include changes to the Zoning and Development By-law or the Vancouver Building By-law.

A further approach will involve identifying populations and uses especially vulnerable to air quality impacts, and developing mitigation approaches to inform how these uses are developed, planned and regulated. This consideration may apply to community care facilities including childcare centres (where Standards of Practice require daily outdoor activity), seniors' centres, health care facilities, or other uses.

E. That Council direct staff to seek recommendations from Vancouver Coastal Health and Metro Vancouver for measures residents of existing housing can take to best mitigate the impact of traffic pollution such as improved air filters, sound proofing, air purifiers, that might help existing residents mitigate the impact of traffic pollution, including fully informing residents of the dangers of eating garden produce, leaving windows open.

City staff and VCH have an existing MOU on health and wellbeing and staff from both organizations have started collaborating on traffic-related air pollution (TRAP). It is a growing issue in the lower mainland and staff look forward to continuing to work together to address it. First steps will involve determining where and when air pollution is impacting Vancouverites, the differences between indoor and outdoor air quality, and what the causal factors are. Staff will work with VCH and Metro Vancouver as well as universities to complete research and initiate real time indoor and outdoor air quality monitoring. Once the issues are well defined and options to lower risk are identified, staff will work with the other organizations to educate the public about risks and how to manage them. Ideally this work will also inform future policy development at the City, Metro and Provincial level.

F. Council direct staff to inform the Vancouver School Board of these actions to inform their planning for schools in the area.

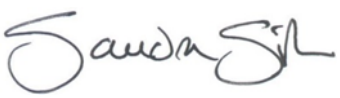
Staff will share this memo with the Vancouver School Board after Council has received it and will include them in the research program described in E above. Inclusion of the Vancouver

School Board in the research program will also reflect current efforts to co-locate City-facilitated childcare centres for children ages 0-4 at new and seismic replacement school sites.

Conclusion

In conclusion, the City has many positive actions underway or planned that support improved air quality whether through transportation planning, the climate emergency response, Healthy City Strategy implementation or City-wide plan process. Staff will collaborate with VCH and Metro Vancouver, and work with key stakeholders on the next steps to ensure comprehensive air quality management at all scales throughout the region.

Any questions related to this memo can be directed to Doug Smith, Director of Sustainability at doug.smith@vancouver.ca.



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