



AGENDA FOR THE REGULAR MEETING OF COUNCIL HELD IN THE COUNCIL CHAMBER AND ELECTRONICALLY (HYBRID) FROM CITY HALL, 141 WEST 14TH STREET, NORTH VANCOUVER, BC, ON MONDAY, OCTOBER 21, 2024 AT 6:00 PM

Watch Livestream at cnv.org/LiveStreaming
View complete Agenda Package at cnv.org/CouncilMeetings

The City of North Vancouver respectfully acknowledges that this Council meeting is held on the traditional and unceded territories of the Skwxwú7mesh (Squamish) and Səlílwətał (Tsleil-Waututh) Nations.

CALL TO ORDER

APPROVAL OF AGENDA

1. Regular Council Meeting Agenda, October 21, 2024

ADOPTION OF MINUTES

2. Regular Council Meeting Minutes, October 7, 2024

PUBLIC INPUT PERIOD

CONSENT AGENDA

Items *3, *4, *5 and *6 are listed in the Consent Agenda and may be considered separately or in one motion.

BYLAWS – ADOPTION

- *3. “Taxation Exemption Bylaw, 2024, No. 9064”
- *4. “Development Cost Charge (Transportation) Reserve Fund Bylaw, 2024, No. 9082” (2024 Capital Plan Funding)
- *5. “Development Cost Charge (Parks) Reserve Fund Bylaw, 2024, No. 9083” (2024 Capital Plan Funding)
- *6. “City of North Vancouver Hydronic Energy Service Bylaw, 2004, No. 7575, Amendment Bylaw, 2024, No. 9085” (Schedule C and Other Fees)

PRESENTATION

MONOVA Strategic Plan 2024-2027 An Update – Director, MONOVA: Museum and Archives of North Vancouver

REPORT

7. MONOVA Strategic Plan 2024-2027 – Update

PRESENTATION

Installation of Noise Monitoring Stations – Manager, Bylaw Services

Information Report, October 2, 2024 – “Installation of Noise Monitor Stations”

REPORTS

8. Community Safety Advisory Committee Terms of Reference
9. North Vancouver Museum and Archives Commission Agreement Bylaw Amendment (Deaccessions)

BYLAW – FIRST, SECOND AND THIRD READINGS

10. “North Vancouver Museum and Archives Commission Agreement Bylaw, 1995, No. 6719, Amendment Bylaw, 2024, No. 9063” (Deaccession)

REPORT

11. Zoning Bylaw Amendment – Money Services Business

PUBLIC CLARIFICATION PERIOD

COUNCIL INQUIRIES

COUNCIL REPORTS

NEW ITEMS OF BUSINESS

NOTICES OF MOTION

RECESS TO CLOSED SESSION

REPORT OF THE COMMITTEE OF THE WHOLE (CLOSED SESSION)

ADJOURN

CALL TO ORDER

APPROVAL OF AGENDA

1. Regular Council Meeting Agenda, October 21, 2024

ADOPTION OF MINUTES

2. Regular Council Meeting Minutes, October 7, 2024

PUBLIC INPUT PERIOD

The Public Input Period is addressed in sections 12.20 to 12.28 of “Council Procedure Bylaw, 2015, No. 8500.” The time allotted for each speaker addressing Council during the Public Input Period is 2 minutes, with the number of speakers set at 5 persons. Speakers’ comments will be audio recorded, as well as live-streamed on the City’s website, and will form part of the public record.

Speakers may only speak on the same matter once in a 3-month period.

Speakers during the Public Input Period are permitted to join the meeting in person in the Council Chamber or electronically via Webex. There are 2 ways to sign up to speak during the Public Input Period.

- 1) **IN PERSON:** Speakers who choose to participate in person must sign the speaker list located outside the Council Chamber between 5:30 and 5:50pm on the day of the Council meeting.
- 2) **ELECTRONICALLY VIA WEBEX:** Speakers who choose to participate electronically must pre-register by 12:00 noon on the day of the Council meeting by completing the online form at cnv.org/PublicInputPeriod, or by phoning 604-990-4234. These pre-registrants will receive instructions by email or phone on the afternoon before the Council meeting.

If a speaker has written material to accompany their comments, the material must be sent to the Corporate Officer at clerks@cnv.org no later than 12:00 noon on the day of the Council Meeting.

The Public Input Period provides an opportunity for comment only and places the speaker’s concern on record, without the expectation of a response from Council. Speakers must comply with the General Rules of Conduct set out in section 5.1 of “Council Procedure Bylaw, 2015, No. 8500” and may not speak with respect to items as listed in section 12.25(2), including Zoning Bylaws for which a Public Hearing will not be held or is prohibited under section 464 of the *Local Government Act*.

Speakers are requested not to address matters that refer to items from a concluded Public Hearing/Public Meeting or to Public Hearings, Public Meetings and Committee meetings when those matters are scheduled on the same evening’s agenda, as an opportunity for public input is provided when the particular item comes forward for discussion.

Please address the Mayor as “Your Worship” or “Mayor, followed by their surname”. Councillors should be addressed as “Councillor, followed by their surname”.

CONSENT AGENDA

Items *3, *4, *5 and *6 are listed in the Consent Agenda and may be considered separately or in one motion.

RECOMMENDATION:

THAT the recommendations listed within the “Consent Agenda” be approved.

START OF CONSENT AGENDA

BYLAWS – ADOPTION

- *3. “Taxation Exemption Bylaw, 2024, No. 9064”

RECOMMENDATION:

THAT “Taxation Exemption Bylaw, 2024, No. 9064” be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

- *4. “Development Cost Charge (Transportation) Reserve Fund Bylaw, 2024, No. 9082” (2024 Capital Plan Funding)

RECOMMENDATION:

THAT “Development Cost Charge (Transportation) Reserve Fund Bylaw, 2024, No. 9082” (2024 Capital Plan Funding) be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

- *5. “Development Cost Charge (Parks) Reserve Fund Bylaw, 2024, No. 9083” (2024 Capital Plan Funding)

RECOMMENDATION:

THAT “Development Cost Charge (Parks) Reserve Fund Bylaw, 2024, No. 9083” (2024 Capital Plan Funding) be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

- *6. “City of North Vancouver Hydronic Energy Service Bylaw, 2004, No. 7575, Amendment Bylaw, 2024, No. 9085” (Schedule C and Other Fees)

RECOMMENDATION:

THAT “City of North Vancouver Hydronic Energy Service Bylaw, 2004, No. 7575, Amendment Bylaw, 2024, No. 9085” (Schedule C and Other Fees) be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

END OF CONSENT AGENDA

PRESENTATION

MONOVA Strategic Plan 2024-2027 An Update – Director, MONOVA: Museum and Archives of North Vancouver

Item 7 refers.

REPORT

7. MONOVA Strategic Plan 2024-2027 – Update – File: 01-0360-20-0073/2024

Report: Director, MONOVA: Museum and Archives of North Vancouver,
October 6, 2024

RECOMMENDATION:

PURSUANT to the report of the Director, MONOVA: Museum and Archives of North Vancouver, dated October 6, 2024, entitled “MONOVA Strategic Plan 2024-2027 – Update”:

THAT the updated MONOVA Strategic Plan 2024-2027 be received for information and endorsed by Council.

PRESENTATION

Installation of Noise Monitoring Stations – Manager, Bylaw Services

Information Report, October 2, 2024 – “Installation of Noise Monitor Stations”

REPORTS

8. Community Safety Advisory Committee Terms of Reference
– File: 14-7000-01-0001/2024

Report: Public Safety Director and Fire Chief, October 3, 2024

RECOMMENDATION:

PURSUANT to the report of the Public Safety Director and Fire Chief, dated October 3, 2024, entitled “Community Safety Advisory Committee Terms of Reference”:

THAT the Community Safety Advisory Committee Terms of Reference be endorsed;

THAT two Council members be appointed to the Committee at the time of the annual appointment of Council members to advisory bodies;

Continued...

REPORTS – Continued

8. Community Safety Advisory Committee Terms of Reference
– File: 14-7000-01-0001/2024 – Continued

THAT a copy of this motion be sent to the member organizations identified in the Terms of Reference;

AND THAT staff be directed to include the Community Safety Advisory Committee in the upcoming annual recruitment process in respect of the five (5) Resident member positions.

9. North Vancouver Museum and Archives Commission Agreement Bylaw Amendment (Deaccessions) – File: 01-0360-20-0073/2024

Report: Acting Corporate Officer, October 2, 2024

RECOMMENDATION:

PURSUANT to the report of the Acting Corporate Officer, dated October 2, 2024, entitled “North Vancouver Museum and Archives Commission Agreement Bylaw Amendment (Deaccessions)”:

THAT the report to and resolution of the North Vancouver Museum and Archives Commission (the “Commission”), considered by the Commission September 26, 2024, be received by Council for information and consideration;

THAT the request of the Commission for amendment of the Commission Agreement and Bylaw to delegate approval of deaccessions to the Commission be approved;

THAT the Mayor and Corporate Officer be authorized to execute an amended Commission Agreement, substantially in the form recommended in the Commission’s resolution of September 26, 2024;

AND THAT “North Vancouver Museum and Archives Commission Agreement Bylaw, 1995, No. 6719, Amendment Bylaw, 2024, No. 9063”, be considered for readings pending execution of the amended Commission Agreement prior to adoption.

Item 10 refers.

BYLAW – FIRST, SECOND AND THIRD READINGS

10. “North Vancouver Museum and Archives Commission Agreement Bylaw, 1995, No. 6719, Amendment Bylaw, 2024, No. 9063” (Deaccession)

RECOMMENDATION:

THAT “North Vancouver Museum and Archives Commission Agreement Bylaw, 1995, No. 6719, Amendment Bylaw, 2024, No. 9063” (Deaccession) be given first and second readings;

AND THAT “North Vancouver Museum and Archives Commission Agreement Bylaw, 1995, No. 6719, Amendment Bylaw, 2024, No. 9063” (Deaccession) be given third reading.

REPORT

11. Zoning Bylaw Amendment – Money Services Business
– File: 13-6630-01-0001/2024

Report: Director, Planning and Development, October 2, 2024

RECOMMENDATION:

PURSUANT to the report of the Director, Planning and Development, dated October 2, 2024, entitled “Zoning Bylaw Amendment – Money Services Business”:

THAT a Zoning Bylaw amendment, to introduce a definition for Money Services Business and regulate the location of such businesses, be considered and no Public Hearing be held, in accordance with the *Local Government Act*;

AND THAT notification of First Reading of “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9084” be circulated in accordance with the *Local Government Act*.

PUBLIC CLARIFICATION PERIOD

The Public Clarification Period is limited to 10 minutes in total and is an opportunity for the public to ask a question regarding process or clarification on an item on the Regular Council Agenda. The Public Clarification Period concludes after 10 minutes and the Regular Council Meeting reconvenes.

COUNCIL INQUIRIES

COUNCIL REPORTS

NEW ITEMS OF BUSINESS

NOTICES OF MOTION

RECESS TO CLOSED SESSION

THAT Council recess to the Committee of the Whole, Closed Session, pursuant to the *Community Charter*, Sections 90(1)(a) [personal information], 90(1)(d) [security of property], 90(1)(e) [land matter], 90(1)(j) [information privacy], 90(1)(k) [contract negotiations/proposed service], 90(1)(m) [exclusion under another enactment] and 90(2)(b) [intergovernmental relations/contract negotiations], and where required, Council considers that the matters could reasonably be expected to harm the interests of the City if they were held in public.

REPORT OF THE COMMITTEE OF THE WHOLE (CLOSED SESSION)

ADJOURN



**MINUTES OF THE REGULAR MEETING OF COUNCIL HELD IN THE COUNCIL CHAMBER AND ELECTRONICALLY (HYBRID) FROM CITY HALL, 141 WEST 14TH STREET, NORTH VANCOUVER, BC, ON
MONDAY, OCTOBER 7, 2024**

PRESENT

COUNCIL MEMBERS

Mayor L. Buchanan
Councillor H. Back
Councillor D. Bell
Councillor A. Girard
Councillor S. Shahriari
Councillor T. Valente

ABSENT

Councillor J. McIlroy

STAFF MEMBERS

L. McCarthy, CAO
B. Pearce, Deputy CAO
P. DeJong, Acting Corporate Officer
J. Peters, Manager, Legislative and Election Services
L. Sawrenko, Chief Financial Officer
H. Granger, City Solicitor
R. Skene, Deputy Director, Civic Development & Strategic Initiatives
K. Magnusson, Director, Engineering, Parks and Environment
D. Hutch, Deputy Director, Parks and Public Spaces
J. Hall, Manager, Public Realm Infrastructure
A. Man-Bourdon, Manager, Parks and Natural Spaces
A. Nayeri, Manager, Infrastructure Policy, Planning and Analysis
C. Lesmeister, Park Planner
S. Galloway, Director, Planning and Development
J. Greig, Manager, Planning (Development Planning)
D. Fergusson, Manager, Planning (City Design and Planning)
M. Menzel, Development Planner
S. Rasooli, Development Planner
M. Chan, Director, Real Estate, Facilities and Economic Development
G. Schalk, Public Safety Director and Fire Chief
E. Doran, Director, People, Culture and Transformation
L. Barton, Manager, Communications
H. Turner, Director, Recreation and Culture, NVRC
K. Veng, CEO, Lonsdale Energy
S. Wood, Manager, Finance, Lonsdale Energy
H. van Gelderen, Legislative Services Advisor

The meeting was called to order at 6:00 pm.

APPROVAL OF AGENDA

Moved by Councillor Back, seconded by Councillor Shahriari

1. Regular Council Meeting Agenda, October 7, 2024

CARRIED UNANIMOUSLY

R2024-10-07/1

ADOPTION OF MINUTES

Moved by Councillor Girard, seconded by Councillor Valente

2. Regular Council Meeting Minutes, September 23, 2024

CARRIED UNANIMOUSLY

R2024-10-07/2

PUBLIC INPUT PERIOD

None

CONSENT AGENDA

Moved by Councillor Valente, seconded by Councillor Girard

THAT the recommendations listed within the “Consent Agenda” be approved.

CARRIED UNANIMOUSLY

START OF CONSENT AGENDA

BYLAWS – ADOPTION

3. “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9067” (Inspired Architecture, 822 East 4th Street, RS-2)

Moved by Councillor Valente, seconded by Councillor Girard

THAT “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9067” (Inspired Architecture, 822 East 4th Street, RS-2) be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

(CARRIED UNANIMOUSLY BY CONSENT)

R2024-10-07/3

4. “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9068” (Inspired Architecture, 842 East 5th Street, RS-2)

Moved by Councillor Valente, seconded by Councillor Girard

THAT “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9068” (Inspired Architecture, 842 East 5th Street, RS-2) be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

(CARRIED UNANIMOUSLY BY CONSENT)

R2024-10-07/4

5. “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9069” (Bill Curtis and Associates Design Ltd., 417 West 14th Street, RS-2)

Moved by Councillor Valente, seconded by Councillor Girard

THAT “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9069” (Bill Curtis and Associates Design Ltd., 417 West 14th Street, RS-2) be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

(CARRIED UNANIMOUSLY BY CONSENT)

R2024-10-07/5

CONSENT AGENDA – Continued

BYLAWS – ADOPTION – Continued

6. “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9070” (Bill Curtis and Associates Design Ltd., 450 West 15th Street, RS-2)

Moved by Councillor Valente, seconded by Councillor Girard

THAT “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9070” (Bill Curtis and Associates Design Ltd., 450 West 15th Street, RS-2) be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

(CARRIED UNANIMOUSLY BY CONSENT)

R2024-10-07/6

7. “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9074” (Vernacular Studio Inc., 462 East 11th Street, RS-2)

Moved by Councillor Valente, seconded by Councillor Girard

THAT “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9074” (Vernacular Studio Inc., 462 East 11th Street, RS-2) be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

(CARRIED UNANIMOUSLY BY CONSENT)

R2024-10-07/7

8. “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9075” (Vernacular Studio Inc., 509 East 6th Street, RS-2)

Moved by Councillor Valente, seconded by Councillor Girard

THAT “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9075” (Vernacular Studio Inc., 509 East 6th Street, RS-2) be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

(CARRIED UNANIMOUSLY BY CONSENT)

R2024-10-07/8

9. “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9077” (Vernacular Studio Inc., 844 East 6th Street, RS-2)

Moved by Councillor Valente, seconded by Councillor Girard

THAT “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9077” (Vernacular Studio Inc., 844 East 6th Street, RS-2) be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

(CARRIED UNANIMOUSLY BY CONSENT)

R2024-10-07/9

CONSENT AGENDA – Continued

BYLAWS – ADOPTION – Continued

10. “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9080” (Robert Blaney Design Inc., 652 East 4th Street, RS-2)

Moved by Councillor Valente, seconded by Councillor Girard

THAT “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9080” (Robert Blaney Design Inc., 652 East 4th Street, RS-2) be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

(CARRIED UNANIMOUSLY BY CONSENT)

R2024-10-07/10

11. “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9081” (Vela Design Build, 642 East 6th Street, RS-2)

Moved by Councillor Valente, seconded by Councillor Girard

THAT “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9081” (Vela Design Build, 642 East 6th Street, RS-2) be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

(CARRIED UNANIMOUSLY BY CONSENT)

R2024-10-07/11

END OF CONSENT AGENDA

Councillor Shahriari recused himself at 6:01 pm, declaring a potential conflict of interest due to his residence being in close proximity to the applications for Item 12, “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9073” (Vernacular Studio Inc., 352 West 15th Street, RS-2), and Item 13, “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9079” (Armacan Developments Ltd., 332 West 16th Street, RS-2).

BYLAWS – ADOPTION

12. “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9073” (Vernacular Studio Inc., 352 West 15th Street, RS-2)

Moved by Councillor Valente, seconded by Councillor Girard

THAT “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9073” (Vernacular Studio Inc., 352 West 15th Street, RS-2) be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

CARRIED UNANIMOUSLY

(by remaining members present)

R2024-10-07/12

BYLAWS – ADOPTION – Continued

13. “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9079” (Armacan Developments Ltd., 332 West 16th Street, RS-2)

Moved by Councillor Valente, seconded by Councillor Girard

THAT “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9079” (Armacan Developments Ltd., 332 West 16th Street, RS-2) be adopted, signed by the Mayor and Corporate Officer and affixed with the corporate seal.

CARRIED UNANIMOUSLY
(by remaining members present)
R2024-10-07/13

Councillor Shahriari returned to the meeting at 6:02 pm.

PUBLIC MEETING – Lonsdale Energy Corporation 2024 Rate Review

Moved by Councillor Bell, seconded by Councillor Girard

THAT the meeting recess to the Public Meeting regarding “Lonsdale Energy Corporation 2024 Rate Review”.

CARRIED UNANIMOUSLY

The meeting recessed to the Public Meeting at 6:03 pm and reconvened at 6:50 pm.

REPORT

14. Lonsdale Energy Corporation – 2024 Rate Review and Bylaw Amendment
– File: 01-0510-20-0004/2024

Report: Manager, Finance, Lonsdale Energy, September 4, 2024

Moved by Councillor Valente, seconded by Councillor Girard

PURSUANT to the report of the Manager, Finance, Lonsdale Energy, dated September 4, 2024, entitled “2024 Rate Review and Bylaw Amendment”:

THAT “City of North Vancouver Hydronic Energy Service Bylaw, 2004, No. 7575, Amendment Bylaw, 2024, No. 9085” (Schedule C and Other Fees) be considered for readings.

CARRIED UNANIMOUSLY
R2024-10-07/14

BYLAW – FIRST, SECOND AND THIRD READINGS

15. “City of North Vancouver Hydronic Energy Service Bylaw, 2004, No. 7575, Amendment Bylaw, 2024, No. 9085” (Schedule C and Other Fees)

Moved by Councillor Valente, seconded by Councillor Girard

THAT “City of North Vancouver Hydronic Energy Service Bylaw, 2004, No. 7575, Amendment Bylaw, 2024, No. 9085” (Schedule C and Other Fees) be given first and second readings;

AND THAT “City of North Vancouver Hydronic Energy Service Bylaw, 2004, No. 7575, Amendment Bylaw, 2024, No. 9085” (Schedule C and Other Fees) be given third reading.

CARRIED UNANIMOUSLY

R2024-10-07/15

REPORT

16. Rezoning Application – 648 West 14th Street (Inspired Architecture Inc.)
– File: 08-3400-20-0112/1

Report: Planner 1, September 18, 2024

Moved by Councillor Valente, seconded by Councillor Girard

PURSUANT to the report of the Planner 1, dated September 18, 2024, entitled “Rezoning Application – 648 West 14th Street (Inspired Architecture Inc.)”:

THAT the application submitted by Inspired Architecture Inc., to rezone the property located at 648 West 14th Street from a One Unit Residential 1 (RS-1) Zone to a Comprehensive Development Zone, be considered;

THAT “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9066” (Inspired Architecture Inc., 648 West 14th Street, CD-767) be considered for readings with no Public Hearing held, in accordance with the *Local Government Act, Section 464(3) [public hearing prohibited]*;

AND THAT the community benefits listed in the section “Density Bonus and Community Benefits” be secured, through agreements at the applicant’s expense and to the satisfaction of staff.

Councillor Girard left the meeting at 7:04 pm and returned at 7:06 pm.

CARRIED

R2024-10-07/16

Councillor Bell is recorded as voting in opposition to the motion.

BYLAW – FIRST, SECOND AND THIRD READINGS

17. “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9066” (Inspired Architecture Inc., 648 West 14th Street, CD-767)

Moved by Councillor Valente, seconded by Councillor Girard

THAT “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9066” (Inspired Architecture Inc., 648 West 14th Street, CD-767) be given first and second readings;

AND THAT “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9066” (Inspired Architecture Inc., 648 West 14th Street, CD-767) be given third reading.

CARRIED
R2024-10-07/17

Councillor Bell is recorded as voting in opposition to the motion.

REPORTS

18. NVRC Mandate and Strategic Plan: Vision, Values and Goals
– File: 01-0360-20-0074/2024

Report: Director, Recreation and Culture, September 19, 2024

Moved by Councillor Girard, seconded by Councillor Shahriari

PURSUANT to the report of the Director, Recreation and Culture, dated September 19, 2024, entitled “NVRC Mandate and Strategic Plan: Vision, Values and Goals”:

THAT the revised Mandate be approved, as recommended by the Commission;

AND THAT the revised Strategic Plan: Vision, Values and Goals be received for information.

CARRIED UNANIMOUSLY
R2024-10-07/18

19. Housing Agreement Bylaw Update for 1612 St. Georges Avenue (Domus Projects Limited) – File: 08-3400-20-0088/1

Report: Planner 3, September 18, 2024

Moved by Councillor Bell, seconded by Councillor Girard

PURSUANT to the report of the Planner 3, dated September 18, 2024, entitled “Housing Agreement Bylaw Update for 1612 St. Georges Avenue (Domus Projects Ltd.)”:

THAT third reading of “Housing Agreement Bylaw, 2024, No. 9056” (Domus Projects Ltd., 1612 St. Georges Avenue, CD-764, Rental Housing Commitments) be rescinded;

Continued...

REPORTS – Continued

19. Housing Agreement Bylaw Update for 1612 St. Georges Avenue (Domus Projects Limited) – File: 08-3400-20-0088/1 – Continued

THAT “Housing Agreement Bylaw, 2024, No. 9056” (Domus Projects Ltd., 1612 St. Georges Avenue, CD-764, Rental Housing Commitments) be amended by:

- a) updating the definition of “Residential Building” to reflect the changes from 75 Dwelling Units to 80, and from 67 Market Rental Units to 72;
- b) updating Section 4.1 to reflect the changes from 12 three-bedroom units to 8, 17 two-bedroom units to 16, and 46 studio/one-bedroom units to 56;

AND THAT “Housing Agreement Bylaw, 2024, No. 9056” (Domus Projects Ltd., 1612 St. Georges Avenue, CD-764, Rental Housing Commitments) be considered for third reading, as amended.

CARRIED UNANIMOUSLY

R2024-10-07/19

BYLAW –THIRD READING, AS AMENDED

20. “Housing Agreement Bylaw, 2024, No. 9056” (Domus Projects Ltd., 1612 St. Georges Avenue, CD-764, Rental Housing Commitments)

Moved by Councillor Bell, seconded by Councillor Girard

THAT “Housing Agreement Bylaw, 2024, No. 9056” (Domus Projects Ltd., 1612 St. Georges Avenue, CD-764, Rental Housing Commitments) be given third reading, as amended.

CARRIED UNANIMOUSLY

R2024-10-07/20

REPORT

21. 2024 Appropriations – Final – File: 05-1705-30-0019/2024

Report: Chief Financial Officer, September 18, 2024

Moved by Councillor Shahriari, seconded by Councillor Valente

PURSUANT to the report of the Chief Financial Officer, dated September 18, 2024, entitled “2024 Appropriations – Final:

THAT (Funding Appropriation #2423) an amount of \$3,679,579 be appropriated from the General Capital Reserve for the purpose of funding the 2024-2028 Capital Plan;

THAT (Funding Appropriation #2424) an amount of \$2,214,340 be appropriated from the Civic Amenity Reserve for the purpose of funding the 2024-2028 Capital Plan;

Continued...

REPORT – Continued

21. 2024 Appropriations – Final – File: 05-1705-30-0019/2024 – Continued

THAT (Funding Appropriation #2425) an amount of \$200,000 be appropriated from the Fire Equipment Replacement Reserve for the purpose of funding the 2024-2028 Capital Plan;

THAT (Funding Appropriation #2426) an amount of \$2,200,000 be appropriated from the Growing Community Reserve for the purpose of funding the 2024-2028 Capital Plan;

THAT (Funding Appropriation #2427) an amount of \$102,607 be appropriated from the Sustainable Transportation Reserve for the purpose of funding the 2024-2028 Capital Plan;

THAT (Funding Appropriation #2428) an amount of \$16,302,243 be appropriated from the North Shore Neighbourhood House and City Parks Fund for the purpose of funding the 2024-2028 Capital Plan;

THAT (Funding Appropriation #2429) an amount of \$85,000 be appropriated from the Public Art Reserve for the purpose of funding the 2024-2028 Capital Plan;

THAT (Funding Appropriation #2430) an amount of \$80,000 be appropriated from the Cemetery Reserve for the purpose of funding the 2024-2028 Capital Plan;

THAT “Development Cost Charge (Transportation) Reserve Fund Bylaw, 2024, No. 9082” (2024 Capital Plan Funding), a Bylaw to appropriate an amount of \$651,104 from the DCC (Transportation) Reserve Fund to fund the 2024 Capital Plan, be considered for readings;

THAT “Development Cost Charge (Parks) Reserve Fund Bylaw, 2024, No. 9083” (2024 Capital Plan Funding), a Bylaw to appropriate an amount of \$497,757 from the DCC (Parks) Reserve to fund the 2024 Capital Plan, be considered for readings;

AND THAT should any of the amounts remain unexpended as at December 31, 2027, the unexpended balances shall be returned to the credit of the respective reserves.

CARRIED UNANIMOUSLY

R2024-10-07/21

BYLAWS – FIRST, SECOND AND THIRD READINGS

22. “Development Cost Charge (Transportation) Reserve Fund Bylaw, 2024, No. 9082” (2024 Capital Plan Funding)

Moved by Councillor Shahriari, seconded by Councillor Girard

THAT “Development Cost Charge (Transportation) Reserve Fund Bylaw, 2024, No. 9082” (2024 Capital Plan Funding) be given first and second readings;

AND THAT “Development Cost Charge (Transportation) Reserve Fund Bylaw, 2024, No. 9082” (2024 Capital Plan Funding) be given third reading.

CARRIED UNANIMOUSLY

R2024-10-07/22

BYLAWS – FIRST, SECOND AND THIRD READINGS

23. “Development Cost Charge (Parks) Reserve Fund Bylaw, 2024, No. 9083” (2024 Capital Plan Funding)

Moved by Councillor Girard, seconded by Councillor Valente

THAT “Development Cost Charge (Parks) Reserve Fund Bylaw, 2024, No. 9083” (2024 Capital Plan Funding) be given first and second readings;

AND THAT “Development Cost Charge (Parks) Reserve Fund Bylaw, 2024, No. 9083” (2024 Capital Plan Funding) be given third reading.

CARRIED UNANIMOUSLY

R2024-10-07/23

REPORT

24. 2025 Permissive Tax Exemptions – File: 05-1970-07-0001/2024

Report: Chief Financial Officer, September 18, 2024

Moved by Councillor Bell, seconded by Councillor Back

PURSUANT to the report of the Chief Financial Officer, dated September 18, 2024, entitled “2025 Permissive Tax Exemptions”:

THAT “Taxation Exemption Bylaw, 2024, No. 9064” be considered for readings.

CARRIED UNANIMOUSLY

R2024-10-07/24

BYLAW – FIRST, SECOND AND THIRD READINGS

25. “Taxation Exemption Bylaw, 2024, No. 9064”

Moved by Councillor Bell, seconded by Councillor Girard

THAT “Taxation Exemption Bylaw, 2024, No. 9064” be given first and second readings;

AND THAT “Taxation Exemption Bylaw, 2024, No. 9064” be given third reading.

CARRIED UNANIMOUSLY

R2024-10-07/25

PUBLIC CLARIFICATION PERIOD

Nil.

COUNCIL INQUIRIES

26. Sidewalk Management – File: 01-0220-01-0001/2024

Councillor Valente inquired regarding the overall approach to sidewalk management and replacement. Mayor Buchanan advised that this matter has been forwarded to staff for a report back to Council.

R2024-10-07/26

NEW ITEMS OF BUSINESS

Nil.

NOTICES OF MOTION

Nil.

RECESS TO CLOSED SESSION

Moved by Councillor Shahriari, seconded by Councillor Back

THAT Council recess to the Committee of the Whole, Closed Session, pursuant to the *Community Charter*, Section 90(1)(d) [security of City property], and where required, Council considers that the matters could reasonably be expected to harm the interests of the City if they were held in public.

CARRIED UNANIMOUSLY

The meeting recessed to the Committee of the Whole, Closed Session, at 8:29 pm and reconvened at 9:16 pm.

REPORT OF THE COMMITTEE OF THE WHOLE (CLOSED SESSION)

Nil.

ADJOURN

Moved by Councillor Valente, seconded by Councillor Back

THAT the meeting adjourn.

CARRIED UNANIMOUSLY

The meeting adjourned at 9:17 pm.

“Certified Correct by the Acting Corporate Officer”

ACTING CORPORATE OFFICER

THIS PAGE INTENTIONALLY LEFT BLANK

THE CORPORATION OF THE CITY OF NORTH VANCOUVER

BYLAW NO. 9064

A Bylaw to exempt certain lands and improvements in the City of North Vancouver from taxation for the year 2025

The Council of The Corporation of the City of North Vancouver, in open meeting assembled, enacts as follows:

1. This Bylaw shall be known and cited for all purposes as “**Taxation Exemption Bylaw, 2024, No. 9064**”.
2. Tax exemptions under section 224 of the *Community Charter*.

The following lands situated, lying and being in the Corporation of the City of North Vancouver, Province of British Columbia, and any and all improvements thereon are hereby exempt from taxation imposed by the Corporation of the City of North Vancouver under section 224 of the *Community Charter* for the year 2024:

A. land or improvements that:

- i. are owned or held by a charitable, philanthropic or other not for profit corporation; and
- ii. the council considers are used for a purpose that is directly related to the purposes of the corporation:
 1. Anavets Senior Citizens’ Housing, District Lot 274 Block 142 Lot 1 Plan BCP48496, PID: 028-616-260, 245 East 3rd Street, registered in the name of Anavets Senior Citizens’ Housing Society, Roll # 142001.100;
 2. Army, Navy, Air Force Veterans in Canada, District Lot 274 Block 141 Lot 11 Plan 878, PID: 015-077-179, 119 East 3rd Street, registered in the name of Army, Navy Air Force Veterans in Canada, Roll # 141011.000;
 3. Auxiliary to the Lions Gate Hospital, Thrift Shop, Portion of District Lot 548 Block 30 Lot L Plan 1085, PID: 004-086-392, 132 16th Street West, registered in the name of Royal Trust Corporation of Canada Limited, managed by Goodwood Property Investments Ltd., leased to The Auxiliary to the Lions Gate Hospital, Roll # 030021.000;
 4. BC Photography and Media Arts Society, Portion of District Lot 271 Lot A Plan EPP30713, and excluding the commercial retail space, PID 029-093-554, 101 Carrie Cates Court, registered in the name of the Corporation of the City of North Vancouver and leased to The British Columbia Photography and Media Arts Society, Roll # 177035.301;
 5. Catalyst Community Developments Society, District Lot 274 Lot A Plan EPP130457, PID 032-071-949, 221 East 2nd Street, registered in the name of the Corporation of the City of North Vancouver leased to Catalyst Community Developments Society, Roll # 154001.100;

6. Catalyst Community Developments Society, District Lot 274 Lot B Plan EPP130457, PID 032-071-965, 204 East 1st Street, registered in the name of the Corporation of the City of North Vancouver leased to Catalyst Community Developments Society, Roll # 154001.200
7. Chesterfield House Society, District Lot 548 Block E.48 Lot A Plan 12729 PID: 008-811-946, excluding land and improvement portions relating to market rental units #202 and #204, 1415 Chesterfield Avenue, registered in the name of Marineview Housing Society, Roll # 048019.000;
8. Community Living Society, District Lot 274 Block 116 Lot 4 Plan 878, PID: 015-131-548, 317 & 319 East Keith Road, registered in the name of Community Living Society, Roll # 116003.000;
9. Community Living Society, District Lot 544 SL21 Plan LMS531, PID: 017-957-826, 1003-555 West 28th Street, registered in the name of Community Living Society, Roll # 990531.021;
10. Family Services North Shore, Portion of District Lot 548/549 Block 86 Lot G Plan LMP29334, PID: 023-499-486, Suite 203 and 206, 1111 Lonsdale Avenue, registered in the name of Djavad Mowafaghian Foundation leased to Family Services North Shore, Roll # 086015.100;
11. Fraternal Order of Eagles, North-West Aerie 2638, District Lot 274 Lot 1 Plan BCS2790, PID: 027-428-613, 170 West 3rd Street, registered in the name of Fraternal Order of Eagles, North-West Aerie 2638, Roll # 992790.001;
12. Fraternal Order of Eagles, North-West Aerie 2638, District Lot 274 Lot 2 Plan BCS2790, PID: 027-428-621, 168 West 3rd Street, registered in the name of Fraternal Order of Eagles, North-West Aerie 2638, Roll # 992790.002;
13. Fraternal Order of Eagles, North-West Aerie 2638, District Lot 274 Lot 3 Plan BCS2790, PID: 027-428-630, 166 West 3rd Street, registered in the name of Fraternal Order of Eagles, North-West Aerie 2638, Roll # 992790.003;
14. Fraternal Order of Eagles, North-West Aerie 2638, District Lot 274 Lot 4 Plan BCS2790 PID: 027-428-648, 164 West 3rd Street, registered in the name of Fraternal Order of Eagles, North-West Aerie 2638, Roll # 992790.004;
15. Fraternal Order of Eagles, North-West Aerie 2638, District Lot 274 Lot 5 Plan BCS2790 PID: 027-428-656, 162 West 3rd Street, registered in the name of Fraternal Order of Eagles, North-West Aerie 2638, Roll # 992790.005;
16. Girl Guides of Canada, District Lot 271, Lot 220, Plan EPS4482, PID 030-250-218, Unit 107-252 Esplanade W, registered in the name of Girl Guides of Canada, Roll #994482.220;
17. Girl Guides of Canada, District Lot 271, Lot 221, Plan EPS4482, PID 030-250-226, Unit 108-252 Esplanade W, registered in the name of Girl Guides of Canada, Roll #994482.221;

18. Girl Guides of Canada, District Lot 271, Lot 222, Plan EPS4482, PID 030-250-234, Unit 109-252 Esplanade W, registered in the name of Girl Guides of Canada, Roll #994482.222;
19. Girl Guides of Canada, District Lot 271, Lot 229, Plan EPS4482, PID 030-250-307, Unit 207-252 Esplanade W, registered in the name of Girl Guides of Canada, Roll #994482.229;
20. Girl Guides of Canada, District Lot 271, Lot 230, Plan EPS4482, PID 030-250-315, Unit 208-252 Esplanade W, registered in the name of Girl Guides of Canada, Roll #994482.230;
21. Girl Guides of Canada, District Lot 271, Lot 231, Plan EPS4482, PID 030-250-323, Unit 209-252 Esplanade W, registered in the name of Girl Guides of Canada, Roll #994482.231;
22. Hollyburn Community Services Society, District Lot 550 Block 34 Lot 8 Plan 1698, PID: 014-409-941, 439 East 17th Street, registered in the name of Hollyburn Community Services Society, Roll # 034008.000;
23. Hollyburn Community Services Society, District Lot 548 Lot 4 Plan BCS4407 PID: 028-810-317, 104-210 West 13th Street, registered in the name of the Corporation of the City of North Vancouver and leased to Hollyburn Community Services Society, Roll # 994407.004;
24. Hollyburn Community Services Society, District Lot 548 Lot 6 Plan BCS4407, PID: 028-810-333, 106-210 West 13th Street, registered in the name of the Corporation of the City of North Vancouver leased to Hollyburn Community Services Society, Roll # 994407.006;
25. Hollyburn Community Services Society, District Lot 548 Lot 7 Plan BCS4407, PID: 028-810-341, 107-210 West 13th Street, registered in the name of the Corporation of the City of North Vancouver leased to Hollyburn Community Services Society, Roll # 994407.007;
26. Hollyburn Community Services Society, District Lot 548 Lot 13 Plan BCS4407, PID: 028-810-406, 205-210 West 13th Street, registered in the name the Corporation of the City of North Vancouver leased to Hollyburn Community Services Society, Roll # 994407.013;
27. Hollyburn Community Services Society, District Lot 548 Lot 14 Plan BCS4407, PID: 028-810-414, 206-210 West 13th Street, registered in the name of the Corporation of the City of North Vancouver leased to Hollyburn Community Services Society, Roll # 994407.014;
28. Hollyburn Community Services Society, District Lot 548 Lot 15 Plan BCS4407, PID: 028-810-422, 207-210 West 13th Street, registered in the name of the Corporation of the City of North Vancouver leased to Hollyburn Community Services Society, Roll # 994407.015;

29. HYAD Housing for Young Adults with Disabilities, District Lot 545 Block 206 Lot C Plan BCP44933, PID: 028-231-619, 2130 Chesterfield Avenue, registered in the name Provincial Rental Housing Corporation leased to HYAD Housing for Young Adults with Disabilities, Roll # 206011.400;
30. Intellectual Disabilities (North & West Vancouver) Society, District Lot 547 Block 4 Lot 2 Plan 14515, PID: 007-780-591, 1924 Jones Avenue, registered in the name of Intellectual Disabilities (North & West Vancouver) Society, Roll # 004045.000;
31. Kiwanis North Shore Housing Society, District Lot 271/274 Block 139 Lot D Plan 13604, PID: 008-538-191, 170 West 2nd Street, registered in the name of Kiwanis North Shore Housing Society, Roll # 139026.000;
32. Kiwanis North Shore Housing Society, District Lot 550 Block 52 Lot 1 Plan BCP23494 PID: 026-683-211, 1480 St. Andrews, registered in the name of Kiwanis North Shore Housing Society, Roll # 052100.100;
33. Lighthouse Harbour Ministries, District Lot 274 SL1 Plan VR786, PID: 005-892-244, 1 - 260 East Esplanade, registered in the name of Lighthouse Harbour Ministries, Roll # 980786.001;
34. North Shore Disability Resource Centre Association, District Lot 616 Block B Lot 218 Plan 20292, PID: 006-672-728, 2412 Wilding Way, registered in the name of North Shore Disability Resource Centre Association, Roll # 950001.218;
35. North Shore Multicultural Society, Portion of District Lot 549 Block 50 Lot B Plan 15169, PID: 007-671-032, 123 East 15th Street, Units 100, 202, 203, 204, 204A, 205, 207, 302, 303, and 305 only, registered in the name of Horizon Square Properties Ltd. leased to North Shore Multicultural Society, Roll # 050010.000
36. North Shore Neighbourhood House, District Lot 274 Lot C Plan EPP130457, 225 East 2nd Street, PID 032-071-973, registered in the name of the Corporation of the City of North Vancouver leased to North Shore Neighbourhood House Roll # 154001.300;
37. North Vancouver Chamber of Commerce, District Lot 274 Lot 2 Plan LMS4443, PID: 025-073-591, 102-124 West 1st Street, registered in the name of North Vancouver Chamber of Commerce, Roll # 994443.002;
38. North Vancouver Royal Canadian Legion, District Lot 548 Lot 1 Plan LMS4102, PID: 024-750-638, 123 West 15th Street, registered in the name of North Vancouver Royal Canadian Legion, Roll # 994102.001;
39. North Vancouver Royal Canadian Legion, District Lot 548 Lot 2 Plan LMS4102, PID: 024-750-646, 121 West 15th Street, registered in the name of North Vancouver Royal Canadian Legion, Roll # 994102.002;
40. Silver Harbour Seniors' Activity Centre, District Lot 545 Block 207 Lot C Plan 15014, PID: 007-711-280, 144 East 22nd Street, registered in the name of Silver Harbour Seniors' Activity Centre, Roll # 207050.000;

41. St Leonard's Society of North Vancouver, District Lot 547 Block 67 Lot 26 Plan 750, PID: 015-141-926, 312 Bewicke Avenue, registered in the name of St Leonard's Society of North Vancouver, Roll # 067027.000;
 42. The Cascadia Society for Social Working, District Lot 547 Block 4 Lot G 3846, PID: 012-111-902, 348 West 19th Street, registered in the name of The Cascadia Society for Social Working, Roll # 004081.000;
 43. The Cascadia Society for Social Working, District Lot 547/548 Block 21 Lot H Plan 20988, PID: 005-163-064, 325 West 19th Street, registered in the name of The Cascadia Society for Social Working, Roll # 021010.001;
 44. The Cascadia Society for Social Working, District Lot 547 Block 21 Lot F Plan 20141, PID: 003-683-702, 351 West 19th Street, registered in the name of The Cascadia Society for Social Working, Roll # 021004.001;
 45. Young Women's Christian Association, District Lot 549, Block 61, Lot ASP5, Plan EPP68325, PID 030-180-741, 125 East 14th Street, registered in the name of Young Women's Christian Association, Roll # 061011.600;
- B. land or improvements that:
- i. are owned or held by a municipality, regional district or other local authority; and,
 - ii. the council considers are used for a purpose of the local authority:
 1. City of North Vancouver - Pipe Shop, District Lot 274 Block 176 Lot 4 Plan BCP39824, PID: 027-842- 215, 115 Victory Ship Way, registered in the name of 366466 B.C. Ltd., leased to the Corporation of the City of North Vancouver, operated by Quay Property Management Corp., Roll # 175100.400;
 2. City of North Vancouver - The Shipyards Office and Public Support Space, District Lot 274, Block 176, Portion of Lot 5, Plan BCP 39824, PID 027-842-223, 125 Victory Ship Way, registered in the name of the Corporation of the City of North Vancouver leased to Shipyards DevelopmentLtd., includes 1,317 ft2 Office Space and 6,290 ft2 Public Support Space and 28,310 ft2 Public Plaza SRW, leased back to the Corporation of the City of North Vancouver, Roll # 175100.500;
 3. North Vancouver Museum and Archives Commission, District Lot 271 Lot 131 Plan ELSP6231, PID: 030-942-667, 115 Esplanade W, registered in the name of the Corporation of the City of North Vancouver, leased by the North Vancouver Museum and Archives Commission, Roll# 996231.131;
- C. land or improvements that the council considers would otherwise qualify for exemption under section 220 [general statutory exemptions] were it not for a secondary use:
1. Lonsdale Creek Day Care Society, operating in Lonsdale Annex Elementary School, Portion of District Lot 545 Block 205 Lot 8/14 Plan 3181, PID: 013-068-831, 230 West 21st Street, registered in the name of Board of School Trustees, leased to Lonsdale Creek Day Care Society, Roll # 205008.000;

- D. the interest of a public authority, local authority or any other corporation or organization in land or improvements that are used or occupied by the corporation or organization if:
- i. the land or improvements are owned by a public authority or local authority; and,
 - ii. the land or improvements are used by the corporation or organization for a purpose in relation to which an exemption under this Division or Division 6 of this Part would apply or could be provided if the land or improvements were owned by that corporation or organization:
 1. Lookout Housing and House Society, District Lot 265 Lot 2 Plan BCP8797, PID: 025-819-828, 705 West 2nd Street, registered in the name of the Corporation of the City of North Vancouver, leased to Lookout Housing and House Society, Roll # 510061.300;
 2. Navy League of Canada, District Lot 547, Block 27, Lot 27, Plan 12205, PID 008-935-629, 1555 Forbes Avenue, registered in the name of the Corporation of the City of North Vancouver, leased to the Navy League of Canada, Roll # 003004.000;
 3. North Shore Neighbourhood House - Centre View Childcare, District Lot 549, Block 61, Lot ASP 4, Plan EPP68325, PID 030-180-732, 143 East 14th Street, registered in the name of the Corporation of the City of North Vancouver, leased to North Shore Neighbourhood House, Roll # 061011.500;
 4. North Shore Neighbourhood House – Programming Space, District Lot 274, Lot 63, Plan EPS 1235, PID 029-140-676, 113 East 3rd Street, registered in the name of the Corporation of the City of North Vancouver, licenced to use by North Shore Neighbourhood House, Roll # 991235.063;
 5. North Vancouver Community Arts Council, District Lot 274, Lot 9, Plan LMS3740, PID 024-324-523, 335 Lonsdale Avenue, registered in the name of the Corporation of the City of North Vancouver, leased to the North Vancouver Community Arts Council, Roll #993740.009;
 6. Presentation House Cultural Society, District Lot 271 Block 134 Lot 13 Plan 735, PID 015-132-536 333 Chesterfield Avenue, registered in the name of the Corporation of the City of North Vancouver leased to Presentation House Cultural Society, Roll # 134013.000;
 7. Vancouver Coastal Health - Margaret Fulton Centre, District Lot 547 Lot A Plan LMP42825, PID: 024-562-874, 1601 Forbes Avenue, registered in the name of the Corporation of the City of North Vancouver leased to North Shore Health Region, Roll # 003002.100;
- E. the interest of a public authority, local authority or any other corporation or organization in land or improvements that are used or occupied by the corporation or organization if:
- i. the land or improvements are owned by a person who is providing a municipal service under a partnering agreement;

- ii. an exemption under section 225 [partnering and other special tax exemption authority] would be available for the land or improvements in relation to the partnering agreement if they were used in relation to the service;
- iii. the partnering agreement expressly contemplates that the council may provide an exemption under this provision; and,
- iv. the land or improvements are used by the corporation or organization for a purpose in relation to which an exemption under this Division or Division 6 of this Part would apply or could be provided if the land or improvements were owned by that corporation or organization:

NIL

F. in relation to property that is exempt under section 220(1)(h) [buildings for public worship]:

- i. an area of land surrounding the exempt building;
- ii. a hall that the council considers is necessary to the exempt building and the land on which the hall stands; and,
- iii. an area of land surrounding a hall that is exempt under subparagraph (ii):
 - 1. Holy Trinity Catholic Church, District Lot 545 Block 239 Lot 3 Plan BCP45481, PID: 028-295-943, 2705 Lonsdale Avenue, registered in the name Roman Catholic Archbishop of Vancouver, Roll # 239066.100;
 - 2. King's Temple Missionary Society – North Shore Christian Centre, District Lot 616 Block 12 Lot C Plan 21170, PID: 006-853-838, 1400 Sutherland Avenue, registered in the name of King's Temple Missionary Society – North Shore Christian Centre, Roll # 912009.001;
 - 3. North Shore Alliance Church, District Lot 545 Block 208 Lot 1 Plan 20958, PID: 005-061-563, 201 East 23rd Street, registered in the name of Christian and Missionary Alliance (Canadian Pacific District), Roll # 208001.001;
 - 4. North Shore Alliance Church, District Lot 545/546 Block 208 Lot 2 Plan 20958, PID: 005-061-571, 241 East 23rd Street, registered in the name of Christian and Missionary Alliance (Canadian Pacific District), Roll # 208001.002;
 - 5. North Shore Bethel Christian Mennonite Brethren Church, District Lot 274 Block 114 Lot 19 Plan 878, PID: 015-069-141, 185 East Keith Road, registered in the name of The B.C. Conference of the Mennonite Brethren Churches, Roll # 114025.000;
 - 6. Parish of St. Agnes Anglican Church, District Lot 550 Block 78 Lot A Plan LMP40523, PID: 024-355-712, 530 East 12th Street, registered in the name of Synod of the Diocese of New Westminster, Roll # 078014.100;
 - 7. Parish of St. John, The Evangelist Anglican Church, District Lot 548 Block 72 Plan 20861, PID: 004-364-970, 209 West 13th Street, registered in the name of Parish of St. John, The Evangelist Anglican Church, Roll # 072001.001;

8. Salvation Army North Vancouver Community Church, District Lot 548/549 Block 86 Lot C Plan 1464, PID: 014-606-950, 105 West 12th Street, registered in the name of Salvation Army, Roll # 086009.001;
 9. St. Andrew's & St. Stephen's Presbyterian Church, District Lot 545 Block 227A Lot A Plan 2836, PID: 013-525-409, 2641 Chesterfield Avenue, registered in the name of Trustees of St. Andrew's/St. Stephen's Church, Roll # 227100.000;
 10. St. Andrew's United Church, District Lot 549 Block 88 Lot B Plan 750 PID: 015-136-931, 1046 St. Georges Avenue, registered in the name of The Trustees of the Congregation of St. Andrew's United Church, Roll # 088003.000;
 11. St. Andrew's United Church, District Lot 549 Block 88 Lot 27/28/29 Plan 4328, PID: 011-642-483, 1044 St. Georges Avenue, registered in the name of The Trustees of the Congregation of St. Andrew's United Church, Roll # 088038.000;
 12. The Way Church, District Lot 550 Block 12 Lot C Plan 9445, PID: 009-653-309, 630 East 19th Street, registered in the name of The Way Church, Roll # 012028.000;
- G. land or improvements used or occupied by a religious organization, as tenant or licensee, for the purpose of public worship or for the purposes of a hall that the council considers is necessary to land or improvements so used or occupied:
- NIL
- H. in relation to property that is exempt under section 220(1)(i) [seniors' homes], (j) [hospitals] or (l) [private schools], any area of land surrounding the exempt building:
- NIL
- I. land or improvements owned or held by an athletic or service club or association and used as a public park or recreation ground or for public athletic or recreational purposes:
1. North Vancouver Lawn Bowling Club, Portion of District Lot 546 Block 217 Lot B Plan 18193, PID: 007-204-001, 249 East 24th Street, registered in the name of the Corporation of the City of North Vancouver leased to the North Vancouver Lawn Bowling Club, (Includes 60,170 sq. ft. for Licensed Area 1, 2, 2A and 3 per Schedule A of License Agreement) Roll # 217000.002;
- J. land or improvements owned or held by a person or organization and operated as a licensed community care facility and registered assisted living residence under the Community Care and Assisted Living Act:
1. Marineview Housing Society, District Lot 550, Block 91, Lot 8, Plan 1647, PID 005-751-454, 1053 Grand Boulevard, registered in the name of Marineview Housing Society, Roll #091008.000;
 2. Marineview Housing Society, District Lot 272 Block 5 Lot 12 Plan 3875 PID: 005-751-390, 1057 Cloverley Street, registered in the name of Marineview Housing Society, Roll # 605012.000;

3. Vancouver Coastal Health Authority - Magnolia House, District Lot 616 Block 6 Lot 73 Plan 1763, PID: 004-276-914, 720 East 17th Street, registered of in the name of Provincial Rental Housing Corporation leased to Vancouver Coastal Health Authority, subleased to Magnolia House Residential Mental Health Facility, Roll # 906073.000;

K. land or improvements for which a grant has been made, after March 31, 1974, under the Housing Construction (Elderly Citizens) Act before its repeal:

NIL

3. The effective date of this bylaw is January 1, 2025 to December 31, 2025.

READ a first time on the 7th day of October, 2024.

READ a second time on the 7th day of October, 2024.

READ a third time on the 7th day of October, 2024.

ADOPTED on the <> day of <>, 2024.

MAYOR

ACTING CORPORATE OFFICER

THIS PAGE INTENTIONALLY LEFT BLANK

THE CORPORATION OF THE CITY OF NORTH VANCOUVER

BYLAW NO. 9082

**A Bylaw to authorize the expenditure of monies from the
Development Cost Charge (Transportation) Reserve Fund
for the 2024 Capital Plan Appropriations.**

WHEREAS the entire City is listed in “Development Cost Charges Bylaw, 2016, No. 8471” as an area where development cost charges for transportation will be levied;

AND WHEREAS the development of highway facilities, other than off street parking, is a capital cost permitted to be paid using Development Cost Charge funds under Section 566 of the *Local Government Act*;

NOW THEREFORE the Council of The Corporation of the City of North Vancouver, in open meeting assembled, enacts as follows:

1. This Bylaw shall be known and cited for all purposes as “**Development Cost Charge (Transportation) Reserve Fund Bylaw, 2024, No. 9082**” (2024 Capital Plan Funding).
2. The following amount is hereby appropriated from the Development Cost Charge (Transportation) Reserve Fund for the purpose of funding:
 - A. \$403,604 for the “Mobility Network Implementation” project, and
 - B. \$247,500 for the New Sidewalks to Complete the Pedestrian Network” project.

READ a first time on the 7th day of October, 2024.

READ a second time on the 7th day of October, 2024.

READ a third time on the 7th day of October, 2024.

ADOPTED on the <> day of <>, 2024.

MAYOR

ACTING CORPORATE OFFICER

THIS PAGE INTENTIONALLY LEFT BLANK

THE CORPORATION OF THE CITY OF NORTH VANCOUVER

BYLAW NO. 9083

**A Bylaw to authorize the expenditure of monies from the
Development Cost Charge (Parks) Reserve Fund
for the 2024 Capital Plan Appropriations.**

WHEREAS the entire City is listed in “Development Cost Charges Bylaw, 2016, No. 8471” as an area where development cost charges for parks will be levied;

AND WHEREAS the development of park land is a capital cost permitted to be paid using Development Cost Charge funds under Section 566 of the *Local Government Act*;

NOW THEREFORE the Council of The Corporation of the City of North Vancouver, in open meeting assembled, enacts as follows:

1. This Bylaw shall be known and cited for all purposes as “**Development Cost Charge (Parks) Reserve Fund Bylaw, 2024, No. 9083**” (2024 Capital Plan Funding).
2. The following amount is hereby appropriated from the Development Cost Charge (Parks) Reserve Fund for the purpose of funding:
 - A. \$497,757 for the “1600 Eastern Avenue Park Construction” project.

READ a first time on the 7th day of October,
2024.

READ a second time on the 7th day of October,
2024.

READ a third time on the 7th day of October,
2024.

ADOPTED on the <> day of <>, 2024.

MAYOR

ACTING CORPORATE OFFICER

THIS PAGE INTENTIONALLY LEFT BLANK

THE CORPORATION OF THE CITY OF NORTH VANCOUVER

BYLAW NO. 9085

**A Bylaw to amend the City of North Vancouver
“Hydronic Energy Service Bylaw, 2004, No. 7575”**

The Council of The Corporation of the City of North Vancouver, in open meeting assembled, enacts as follows:

1. This Bylaw shall be known and cited for all purposes as **“City of North Vancouver Hydronic Energy Service Bylaw, 2004, No. 7575, Amendment Bylaw, 2024, No. 9085” (Schedule C and Other Fees)**.
2. “Hydronic Energy Service Bylaw, 2004, No. 7575” is amended as follows:
 - A. Under Schedule B and the Standard Fees and Charges Schedule applicable to Service Connection Installation Fees and Charges, by deleting “94.18 per kilowatt” and replacing it with “\$97.29 per kilowatt”.
 - B. By deleting Schedule “C” in its entirety and replacing it with the Schedule “C” attached to this bylaw.
3. This Bylaw shall be effective as of the 1st day of November, 2024.

READ a first time on the 7th day of October, 2024.

READ a second time on the 7th day of October, 2024.

READ a third time on the 7th day of October, 2024.

ADOPTED on the <> day of <>, 2024.

MAYOR

ACTING CORPORATE OFFICER

SCHEDULE “C” FEES, RATES AND CHARGES

The rates, fees and charges payable in respect of the Service defined in “Hydronic Energy Service Bylaw, 2004, No. 7575” are as set out below.

Except as otherwise stated, capitalized terms in this Schedule “C” shall have the meaning defined in the General Terms and Conditions of “Hydronic Energy Service Bylaw, 2004, No. 7575” attached as Schedule “B”.

PROVISION OF HEATING TO PREMISES:

The rates payable for the provision of Hydronic Energy Heating Service to Premises are a combination of the meter charge, capacity charge and commodity charge.

RESIDENTIAL SERVICE

RATE SCHEDULE 1

- (a) **Meter Charge** – A monthly charge of \$37.07 for each Service Connection serving the Premises.
- (b) **Capacity Charge** – A monthly charge of \$5.6107 per kilowatt multiplied by the energy capacity of the Premises, as determined by a professional engineer qualified for such purposes and described in kilowatts.
- (c) **Commodity Charge** – A charge per kilowatt hour of Hydronic Energy provided to the Premises calculated by multiplying \$0.03398 by the percentage increase or decrease in the price of 1,000 GJ/month under FortisBC rate schedule 3 from the price established as of July 1, 2016.

RATE SCHEDULE 2

- (a) **Meter Charge** – A monthly charge of \$199.64 for each Service Connection serving the Premises.
- (b) **Capacity Charge** – A monthly charge of \$5.6107 per kilowatt multiplied by the energy capacity of the Premises, as determined by a professional engineer qualified for such purposes and described in kilowatts.
- (c) **Commodity Charge** – A charge per kilowatt hour of Hydronic Energy provided to the Premises calculated by multiplying \$0.02871 by the percentage increase or decrease in the price of 1,000 GJ/month under FortisBC rate schedule 3 from the price established as of July 1, 2016.

COMMERCIAL SERVICE

RATE SCHEDULE 1

- (a) **Meter Charge** – A monthly charge of \$37.07 for each Service Connection serving the Premises.
- (b) **Capacity Charge** – A monthly charge of \$5.6107 per kilowatt multiplied by the energy capacity of the Premises, as determined by a professional engineer qualified for such purposes and described in kilowatts.
- (c) **Commodity Charge** – A charge per kilowatt hour of Hydronic Energy provided to the Premises calculated by multiplying \$0.03398 by the percentage increase or decrease in the price of 1,000 GJ/month under FortisBC rate schedule 3 from the price established as of July 1, 2016.

RATE SCHEDULE 2

- (a) **Meter Charge** – A monthly charge of \$199.64 for each Service Connection serving the Premises.
- (b) **Capacity Charge** – A monthly charge of \$5.6107 per kilowatt multiplied by the energy capacity of the Premises, as determined by a professional engineer qualified for such purposes and described in kilowatts.
- (c) **Commodity Charge** – A charge per kilowatt hour of Hydronic Energy provided to the Premises calculated by multiplying \$0.02871 by the percentage increase or decrease in the price of 1,000 GJ/month under FortisBC rate schedule 3 from the price established as of July 1, 2016.

PROVISION OF COOLING TO PREMISES:

The rates payable for the provision of Hydronic Energy Cooling Service to Premises shall be determined by Council for each Premises which connects to and uses the Hydronic Energy Cooling Service.

In addition to the foregoing rates the fees and charges set out in the Standard Fees and Charges attached as a schedule to the General Terms and Conditions will apply to the provision of the Service.

THIS PAGE INTENTIONALLY LEFT BLANK

MONOVA Strategic Plan 2024-2027 An Update

October 21, 2024



MONOVA: Two locations, one community organization.



The Importance of Museums & Archives

- Help us value and understand where we live, work and play
- Help us connect and form a sense of identity and community
- Provide space to research, collect, conserve, and interpret our tangible and intangible heritage
- Inspire community engagement, dialogue & reflection
- Honour the Truth & Reconciliation Commission Calls to Action



MONOVA, Strategic Plan, 2020-2023:

OUR MANDATE

Serves as the municipal custodian of the City and District cultural, archival and museum collections. We are mandated to develop and maintain an appropriate level of museum and archives services, in accordance with commonly accepted standards, to meet the needs and interests of public bodies, corporations and organizations doing business in North Vancouver, and private citizens living in our communities.

EXCERPT FROM AGREEMENT WITH THE CITY AND DISTRICT OF NORTH VANCOUVER: 1995



BUILDING A MUSEUM AS EXTRAORDINARY AS THE COMMUNITY IT SERVES

OUR VISION

To be an inspirational and transformative community hub where the stories of North Vancouver's people, places and past come to life

OUR MISSION

To engage, strengthen and inspire our community and its visitors by creating experiences that explore the past, present and future of North Vancouver and its people

OUR VALUES

Our vision is rooted in four core values:

1. **Inclusiveness:** To welcome and reflect the diverse range of North Vancouver communities, resident groups, neighbourhoods, and stories through our activities
2. **Relevance:** To resonate with all age groups, and reflect the critical issues that impact our changing community
3. **Creativity, Excellence and Integrity:** To deliver exemplary exhibits, archives, museum spaces, educational programs and online experiences—founded on innovation and a commitment to industry standards
4. **Community Building and Engagement:** To serve our entire community, and build well-defined and mutually beneficial partnerships with all relevant organizations and groups



MONOVA, New Strategic Plan, 2024-2027:

OUR VISION

To inspire belonging and community connection across the diverse voices and histories of North Vancouver.

OUR MISSION

To create engaging and educational experiences to reflect on our past, understand our present, and build our future together.



5 Strategic Priorities, a roadmap for the next 4 years:

- **Elevate Public Awareness & Brand Recognition** by creating opportunities for the public to get to know who we are and what we stand for
- **Strengthen Financial Sustainability & Capacity** by expanding our reach and impact through increased fundraising and diversified revenue streams
- **Engage Our Community** by creating connections with North Vancouver residents and encourage interaction, dialogue, and reflection
- **Enhance Visitor Experience** by welcoming all people and creating positive memorable experiences that will leave a lasting impression
- **Forge and Maintain Strong & Diverse Partnerships** by being a trusted partner and collaborator that celebrates and honours diverse perspectives



A CITY FOR PEOPLE
An equitable, accessible and healthy community that is inclusive, welcoming and safe.



"It was a wonderful experience spending time at the museum. It was enlightening to learn about the rich history of North Vancouver. My little one also enjoyed rock painting. I think it was a brilliant idea to engage kids."
-MONOVA Visitor



21,064 MONOVA
Visitors in 2023



70 Active Volunteers in 2024
340 Volunteer Hours
Average per Month this year



School Group Bookings March 2022 – July 2024

Location	Percentage
North Van	66%
West Van	13%
Burnaby	5%
New West	5%
Surrey	1%
Coquitlam	1%
Richmond	1%
VSB	1%
Maple Ridge	1%

A RESILIENT CITY

Leads the way in climate action and is a steward of the environment for future generations.

2,473 Students at MONOVA
School Programs in the
2023/24 School Year

A CONNECTED CITY

Active and sustainable ways for people and goods to move safely and efficiently.

25% of MONOVA Visitors

Surveyed Summer 2024 were
from North Vancouver

7 New Exhibits
On Site in 2024

"I really liked the display that has the dials to spin to show the evolution of transportation over time on the map. Had a really great time walking around, learned a bunch!"
-MONOVA Visitor

2024 Summer Survey

Other than your visit to MONOVA, what else are you doing in The Shipyards today?

Lonsdale Quay market
 sightseeing Touring around exploring area Happy Hour
 sight-seeing Lonsdale Quay wandering walking around area
 Visiting Walking Coffee Nothing Market
 looking hotel going Lunch Eating exploring Shipyards
 Gallery tour food Polygon Gallery
 Brunch Walking around shopping Polygon area Vancouver
 Polygon dinner staying going Polygon gallery
 Restaurant friends taking art galleries taking
 Splash park taking seabus

Number of mentions
 fewer 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

\$68,331 in Museum Store Sales in 2023

\$55,312 in Venue Rental Income in 2023

A VIBRANT CITY

Dynamic public spaces and places that provide for connection and celebration of residents' culture and history.

5,608 Public Program Participants in 2023

3,250 People Engaged at Community Events in 2023

Working in partnership



Tseil-Waututh Nation
PEOPLE OF THE INLET



Skw̓wú7mesh
Úxwumixw
Squamish Nation




THE SHIPYARDS DISTRICT
BUSINESS IMPROVEMENT AREA



Thank
you





----- Director	 CAO
-------------------	--

The Corporation of **THE CITY OF NORTH VANCOUVER**
MUSEUM & ARCHIVES OF NORTH VANCOUVER

REPORT

To: Mayor Linda Buchanan and Members of Council

From: Zoe Mackoff de Miranda, Director, MONOVA: Museum & Archives of North Vancouver

Subject: MONOVA STRATEGIC PLAN 2024-2027 – UPDATE

Date: October 6, 2024 File No: 01-0360-20-0073/2024

The following is a suggested recommendation only. Refer to Council Minutes for adopted resolution.

RECOMMENDATION

PURSUANT to the report of the Director, MONOVA: Museum & Archives of North Vancouver, dated October 6, 2024, entitled “MONOVA Strategic Plan 2024-2027 – Update”:

THAT the updated MONOVA Strategic Plan 2024-2027 be received for information and endorsed by Council.

ATTACHMENTS

1. MONOVA: Museum & Archives of North Vancouver 2024-2027 Strategic Plan (CityDocs [2583771](#))

SUMMARY

An introduction to MONOVA’s new strategic plan and a report on how the new plan supports Council’s vision and priorities.

BACKGROUND

In December 2021 MONOVA: Museum & Archives of North Vancouver opened the doors to a new Museum in The Shipyards after years of searching for a new home to expand exhibits and programs and become a true community hub. In 2017 MONOVA staff and Commissioners foresaw this period of transformation and set in motion a long process of self-scrutiny, visioning and wide consultation. In early 2020 MONOVA’s

2020-2023 Strategic Plan was released as the new Museum site was completed and we continued to serve the community from the Archives in Lynn Valley.

Fast forward to 2023 after weathering the storm of a global pandemic, hiring a new Director, and settling into a new Museum operation, MONOVA was once again ready to undertake a strategic planning process coming out of this period of great transformation.

MONOVA's 2023-2027 strategic planning process was led by MONOVA Director Zoe Mackoff de Miranda and the North Vancouver Museum and Archives Commission Strategic Oversight Committee. The plan was developed with support from North Vancouver-based strategic planning consultants The Discovery Group and the process involved consultation with MONOVA staff, the North Vancouver Museum and Archives Commission, The Friends of the North Vancouver Museum and Archives Society, and Co-Chairs of MONOVA's Indigenous Voices Advisory Committee (IVAC).

This information report serves to introduce Council to MONOVA's new strategic plan and demonstrate how exhibitions, programs, archival services, and museum services support Council's vision and priorities. The MONOVA 2024-2027 Strategic Plan and Update will be similarly presented to the DNV Council in November, 2024.

DISCUSSION

MONOVA: Museum & Archives of North Vancouver participates in Council's vision for the City of North Vancouver to be a resilient, welcoming, vibrant, connected, and prosperous city for all people. In Mayor Buchanan's message in the City of North Vancouver 2022-2026 Council Strategic Plan she shares that "the choices we make today will shape our future." Museums and archives create space to conserve and reflect on our past so we may understand our present and help inform how we shape our future. It is through this lens that MONOVA's new 2024-2027 Strategic Plan was written.

Through thought provoking exhibitions, engaging programs, education, archival research, collections, records management, and volunteerism, museums and archives have the power to:

- Help us value and understand where we live, work and play
- Help us connect and form a sense of identity and community
- Provide space to collect, conserve, and interpret our tangible and intangible heritage
- Inspire community engagement, dialogue & reflection
- Honour the Truth & Reconciliation Commission Calls to Action

The role of museums and archives in society has evolved significantly over time and community museums have been at the forefront of this change. Rooted in local history and culture, community museums must embrace innovation, collaboration, and inclusivity to engage with diverse audiences and address social issues. No longer are they simply repositories of "artifacts" and historical information, but museums and archives now play an important role in shaping cultural narratives and engaging community. In order to stay relevant in our rapidly changing world, community museums

must become more dynamic, inclusive, and responsive organizations, adapting to the needs and expectations of diverse audiences.

Located on the traditional ancestral lands of the Skwxwú7mesh (Squamish) and Səlílwətał (Tsleil-Waututh) Nations, MONOVA's work over the next four years will dramatically increase the opportunity for audiences to interact with the Museum & Archives of North Vancouver in more expansive ways. We will raise public awareness and understanding of our vision and mission, and we will deepen our interaction and engagement through experiences that resonate with and reflect our unique peoples, lands, places, and stories.

MONOVA will:

- **Elevate Public Awareness & Brand Recognition** by creating opportunities for the public to get to know who we are and what we stand for;
- **Strengthen Financial Sustainability & Capacity** by expanding our reach and impact through increased fundraising and diversified revenue streams;
- **Engage Our Community** by creating connections with North Vancouver residents and encourage interaction, dialogue, and reflection;
- **Enhance Visitor Experience** by welcoming all people and creating positive memorable experiences that will leave a lasting impression;
- **Forge and Maintain Strong & Diverse Partnerships** by being a trusted partner and collaborator that celebrates and honours diverse perspectives.

Vision

To inspire belonging and community connection across the diverse voices and histories of North Vancouver.

Mission

To create engaging and educational experiences to reflect on our past, understand our present, and build our future together.

The digital revolution has transformed the way people access information and engage with cultural institutions. Museums and archives are no longer confined to physical spaces; they now have a global reach through online exhibitions, digitized collections, and interactive experiences. This shift has opened new opportunities for museums to increase accessibility and connect with audiences across different demographics and geographic locations, expanding their impact beyond traditional boundaries.

The increasing emphasis on diversity, equity, inclusion, and reconciliation has prompted museums to reassess their collections, programming, and outreach efforts. Museums are now expected to be more accessible, inclusive, and representative of diverse voices and perspectives, and to prioritize decolonization of their collections. By actively engaging with underrepresented communities, addressing difficult histories, and promoting social justice initiatives, museums have the potential to become powerful agents of change in society.

Guiding Principles

Inclusivity: Our approach will reflect the social, emotional, physical, intellectual, creative, and cultural spirit of the people and places we serve

Empathy: We will create space for diverse perspective and honest dialogue

Relevancy: We will actively listen and seek to understand our current context

Memory: We will remember the past in order to know the present and plan for the future

Co-Creation: We will deliver on our mission through active participation and collaboration

Trust: The strength of our inter-connections and relationships will speak boldly through our exhibits and programs

Innovative and Forward Thinking: We will embrace new approaches, technology, and ideas to enhance audience experience

Our Mandate Remains Unchanged

An understanding and appreciation of our social, cultural, artistic, political, and economic history is an essential and necessary component of the fabric of our community life. The Councils of the City, and the District of North Vancouver, therefore, mandate the North Vancouver Museum and Archives Commission to develop and maintain an appropriate level of museum and archives services, in accordance with commonly accepted professional standards, to meet the needs and interests of public bodies, corporations and organizations doing business in North Vancouver and private citizens living in the two municipalities (per North Vancouver Museum and Archives Commission Agreement Bylaw 6789).

Core Partnerships

Guidance and development of MONOVA's strategic plan requires the coordination and alignment with the following core partners:

1. City of North Vancouver
2. District of North Vancouver
3. Skwxwú7mesh (Squamish) & Səlílwətał (Tseil-Waututh) Nations

As part of our planning process, we renew our commitment to our core partners:

City & District of North Vancouver

- Facilitate regular communication, maintain strong connections, collaborate in discussion and decision making where appropriate
- Leverage mutual strengths, credibility, and knowledge toward shared objectives
- Create opportunities for community engagement collaboration between MONOVA and municipal partners

Skwxwú7mesh & Səlílwətał Nations

MONOVA honours our relationship with the Skwxwú7mesh (Squamish) and Səlílwətał (Tseil-Waututh) Nations who continue to steward the ancestral territories now

recognized as North Vancouver. This relationship made formal through signed Memoranda of Understanding (MOU) is integral to our ongoing commitment to working together in partnership. MONOVA's Indigenous Voices Advisory Committee (IVAC) was created to ensure we honour the principles and objectives of the MOUs, work collaboratively with Skwxwú7m and Səlílwətał Nations and establish effective working relationships, approaches and protocols that help guide this collaborative work in the best possible way.

- Fulfill commitments as outlined in existing MOU's, continuing to review agreements together to ensure commitments are still reflective of community needs and desires over time
- Respond to Calls to Action as laid out in the Truth and Reconciliation Commission of Canada, in particular those Calls to Action related to Museums and Archives
- Engage the Nations to ensure their perspectives are represented in MONOVA galleries and programs
- Examine new ways to ensure ongoing interest in participation from local Nations, possibly through staff operations, annual planning and the Commission
- Foster long-term connections with First Nations cultural and language departments
- Ensure input is sought on relevant issues

MONOVA Volunteers

MONOVA volunteers are woven throughout every aspect of our strategic plan and are integral to engaging our community. Attending and participating in community days, building awareness, acting as ambassadors, and supporting the delivery of programs, are all deeply valued volunteer initiatives as we strive to create connection and belonging to North Vancouver's rich cultural fabric.

Council Priority: A City for People

MONOVA strives to create equitable spaces and provide opportunities to build connection which helps improve residents' health and well being. In collaboration with the Skwxwú7mesh and Səlílwətał Nations we create space for culture sharing which helps advance community knowledge, appreciation, and understanding of our local Indigenous communities and their history on these lands since time immemorial. All-ages programming provides multi-generational learning opportunities for children, families, adults and seniors. Exhibits and activities are accessible for all, with sensory kits always available for Museum visitors with diverse sensory needs. By respecting, considering and including the diverse perspectives of all residents, we create an engaged and inspired community. At MONOVA we make sure everyone who lives, works or plays in the City of North Vancouver feels welcome and seen, especially those who have been historically excluded because of their race, gender, sexuality or ability.

Council Priority: A Resilient City

MONOVA develops programming and education around climate action in general and on our local North Shore landscape in particular. We promote MONOVA as a valuable educational partner at elementary, secondary, and post-secondary levels; climate action and environmental stewardship is integrated into many of our school programs. We create space for learning and reflection on our changing environment through thought-provoking exhibitions and collaborate with local knowledge keepers to share Indigenous perspectives on land stewardship and environmental protection. We have the opportunity to collaborate with agency partners and community organizations to tell stories about the work they are doing to create a more resilient city. Through archives and exhibits we explore our past to help understand our present and reflect on a sustainable resilient way to build our future together

Council Priority: A Connected City

Through exhibits and programs we share the history of transportation in North Vancouver and how transportation has evolved over time to meet the needs of our growing community. Through these avenues we create opportunity for dialogue around transportation in North Vancouver today and what the future needs of our community will be. At MONOVA we explore sustainable and active transportation through all-ages programming and exhibits and highlight what options are available to residents in North Vancouver. We also get residents and visitors out on foot to explore and learn about the past and present of the City through historic walking tours, encouraging community exploration through walking and active transportation.

Council Priority: A Prosperous City

MONOVA is an attraction for tourists and draws visitors to North Vancouver. We were featured in the New York Times article *36 Hours in Vancouver* as the only museum featured in the article. Through a 2024 Summer Visitors Survey we learned that 75% of our visitors this summer were from outside of North Vancouver, and 35% were visiting from outside of Canada. Many visitors came to MONOVA as part of a cultural visit in the neighbourhood (also visiting Polygon Gallery) and many were visiting restaurants, shopping, and site seeing on their visit. In our Museum Store we support local makers and small businesses by selling local products and hosting artisan markets. Venue rental at MONOVA generates revenue and provides an easily accessible location for receptions, filming, and corporate events. Looking ahead we will continue to strengthen operational efficiency and work to increase MONOVA's non-government funding through private philanthropy, corporate partnerships, grants, and earned revenue.

Council Priority: A Vibrant City

At MONOVA we celebrate the diverse voices of our community through collaborative programming and highlight the rich and diverse history of North Vancouver. It is part of our responsibility to educate on the difficult parts of our community history including the legacy of residential schools, and work together with Sḵw̱x̱wú7mesh and Səl̓ilwətał Nations to help share that their vibrant cultures and languages are here today. Through ambassadorship from the Friends of the North Vancouver Museum and Archives

Society and other MONOVA volunteers w participate in community days to reach residents outside the walls of our Museum and Archives. Changing exhibits, engaging programs and speaker series, activities for families and seniors, and experiential learning for all ages are key to how we contribute to the vibrancy of North Vancouver.

Conclusion

MONOVA began the 2024-2027 strategic planning process with a set of accomplishments to celebrate and a vision for how we seek to engage North Vancouver residents and visitors. The process served to evaluate and crystalize our vision and produced a set of tangible objectives needed to deliver on our mission which will be shared with the community upon the release of our full 2024-2027 Strategic Plan.

It is essential for MONOVA to be forward-thinking, innovative, and responsive to the evolving needs of the community. Our new Strategic Plan outlines a roadmap for MONOVA: Museum & Archives of North Vancouver, to navigate the complexities of this contemporary landscape, leveraging new technologies, fostering collaboration, and embracing diversity to ensure our institution remains relevant, resilient, and impactful in the years to come.

FINANCIAL IMPLICATIONS

None

INTER-DEPARTMENTAL IMPLICATIONS

None

STRATEGIC PLAN, OCP OR POLICY IMPLICATIONS

None

RESPECTFULLY SUBMITTED:



Zoe Mackoff de Miranda
Director, MONOVA: Museum & Archives of
North Vancouver



2024-2027 Strategic Plan

MONOVA: Museum & Archives of North Vancouver, 2024-2027 Strategic Plan

The role of museums and archives in society has evolved significantly over time and community museums have been at the forefront of redefining the role of museums in the world today. These institutions, often rooted in local history and culture, have embraced innovation, collaboration, and inclusivity to engage with diverse audiences and address social issues. No longer are they simply repositories of artifacts and historical information, but museums and archives now play an important role in shaping cultural narratives and engaging community. In order to stay relevant in our rapidly changing world, community museums must become more dynamic, inclusive, and responsive organizations, adapting to the needs and expectations of diverse audiences.

Winner of the 2023 Canadian Museums Association Outstanding Achievement in Social Impact Award and listed by the New York Times as a must-see destination for a 36-hour visit to Vancouver, MONOVA: Museum & Archives of North Vancouver has been recognized as an inspirational and transformative community hub.

Located on the traditional ancestral lands of the Sk̓wx̓wú7mesh (Squamish) and Səl̓ílwətaʔ (Tseil-Waututh) Nations, MONOVA's work over the next four years will dramatically increase the opportunity for audiences to interact with the Museum & Archives of North Vancouver in more expansive ways. We will raise public awareness and understanding of our vision and mission, and we will deepen our interaction and engagement through experiences that resonate with and reflect our unique peoples, lands, places, and stories.

MONOVA will:

- **Elevate Public Awareness & Brand Recognition** by creating opportunities for the public to get to know who we are and what we stand for
- **Strengthen Financial Sustainability & Capacity** by expanding our reach and impact through increased fundraising and diversified revenue streams
- **Engage Our Community** by creating connections with North Vancouver residents and encourage interaction, dialogue, and reflection
- **Enhance Visitor Experience** by welcoming all people and creating positive memorable experiences that will leave a lasting impression
- **Forge and Maintain Strong & Diverse Partnerships** by being a trusted partner and collaborator that celebrates and honours diverse perspectives

Vision

To inspire belonging and community connection across the diverse voices and histories of North Vancouver.

Mission

Create engaging and educational experiences to reflect on our past, understand our present, and build our future together.

The digital revolution has transformed the way people access information and engage with cultural institutions. Museums and archives are no longer confined to physical spaces; they now have a global reach through online exhibitions, digitized collections, and interactive experiences. This shift has opened new opportunities for museums to increase accessibility and connect with audiences across different demographics and geographic locations, expanding their impact beyond traditional boundaries.

The increasing emphasis on diversity, equity, inclusion, and reconciliation has prompted museums to reassess their collections, programming, and outreach efforts. Museums are now expected to be more accessible, inclusive, and representative of diverse voices and perspectives, and to prioritize decolonization of their collections. By actively engaging with underrepresented communities, addressing difficult histories, and promoting social justice initiatives, museums have the potential to become powerful agents of change in society.

Guiding Principles

Inclusivity: Our approach will reflect the social, emotional, physical, intellectual, creative, and cultural spirit of the people and places we serve

Empathy: We will create space for diverse perspective and honest dialogue

Relevancy: We will actively listen and seek to understand our current context

Memory: We will remember the past in order to know the present and plan for the future

Co-Creation: We will deliver on our mission through active participation and collaboration

Trust: The strength of our inter-connections and relationships will speak boldly through our exhibits and programs

Innovative and Forward Thinking: We will embrace new approaches, technology, and ideas to enhance audience experience

Our Mandate

An understanding and appreciation of our social, cultural, artistic, political, and economic history is an essential and necessary component of the fabric of our community life. The Councils of the City, and the District of North Vancouver, therefore, mandate the North Vancouver Museum and Archives Commission to develop and maintain an appropriate level of museum and archives services, in accordance with commonly accepted professional standards, to meet the needs and interests of public bodies, corporations and organizations doing business in North Vancouver and private citizens living in the two municipalities (as per North Vancouver Museum and Archives Commission Agreement Bylaw 6789).

Strategic Priorities and Objectives

Over the next three years MONOVA will embrace innovation and leverage new approaches to engage our community and enrich visitor experience. We will elevate public awareness and increase public support for MONOVA's vibrant exhibits, inclusive programs, and interactive

experiences. Key to our work is the continued development of a strong staff culture and organizational structure that works in alignment to achieve our objectives.

Strategic Priorities		Objectives
Elevate Public Awareness & Brand Recognition	MONOVA becomes a leading and highly recognized community museum both locally and nationally, driving increased audience awareness, brand visibility, and benchmarks for excellence and innovation in the museum and archives sectors.	<ul style="list-style-type: none"> ▪ Develop a comprehensive marketing and communication strategy that includes traditional media, social media, and community outreach to increase recognition, understanding, and visibility of MONOVA's purpose and brand ▪ Improve external wayfinding using signage, colour and design to support people finding the Museum and Archives as they move throughout the City (CNV) and District (DNV) ▪ Promote MONOVA as a valuable educational partner at elementary, secondary, and post-secondary levels ▪ Increase the visibility and promotion of MONOVA as a tourism destination ▪ Collaborate with staff, sponsors, volunteers, neighboring First Nations, and North Vancouver communities at large from young to elderly to increase awareness ▪ Elevate awareness of MONOVA and our industry-leading practices within the museum and archives sectors
Key Performance Indicators which we will be tracking to monitor and measure our success.	<ul style="list-style-type: none"> - Visitor satisfaction & loyalty - Visitor numbers and admission sales among both locals and tourists - Retail and venue rental revenue - Website & social media analytics - Return on investment in marketing and communications - Earned media - Partner engagement and satisfaction (MOU's, Revenue, ROI) 	
Strengthen Financial Sustainability & Capacity	MONOVA achieves financial stability and growth by diversifying revenue and accelerating philanthropic activity, while strengthening staff culture and organizational structure.	<ul style="list-style-type: none"> ▪ Increase non-government funding, private philanthropy, corporate partnerships, grants received, and earned revenue ▪ Explore charitable registration and enhance the role of philanthropy in revenue generation ▪ Invest internally in capacity to fundraise including the creation of an internal fund development position ▪ Continue to strengthen financial transparency and operational efficiency ▪ Nurture strong staff culture and knowledge base by developing, retaining and growing employee engagement and satisfaction ▪ Improve content, documents, and records management

Strategic Priorities		Objectives
		<ul style="list-style-type: none"> Enhance Commission engagement by leveraging community connections among Commissioners and increasing Commission involvement in fundraising efforts Refine, clarify, and celebrate MONOVA's working relationship with the Friends Society as organization ambassadors
Key Performance Indicators which we will be tracking to monitor and measure our success.	<ul style="list-style-type: none"> Employee engagement, satisfaction and retention Stability and risk mitigation among records storage and management Donor and sponsor commitments Diversification of funding sources Revenue growth, cost management, and increasing surpluses Growth across revenue streams 	
Engage Our Community	MONOVA boosts community participation and engagement by increasing outreach and educational impact, improving accessibility for all, and fostering a strong, invested membership base.	<ul style="list-style-type: none"> Create welcoming, inclusive, safe and accessible spaces which support the health and well-being of all. Increase community understanding of Skwxwú7mesh and Səlílwətał Nations and inter-cultural perspectives through storytelling and Museum and Archives programming Enhance youth engagement in culture and content creation Continue to build MONOVA's curriculum-aligned school programs and increase group bookings at both locations Continue to explore opportunities to support local businesses through MONOVA's retail presence Increase engagement opportunities and resources for those with diverse accessibility needs Create a membership structure in which members feel invested in MONOVA and excited about their community Museum & Archives Enhance volunteer participation in community days Increase socio-economic accessibility through affordable entry options and barrier-free programming Increase community engagement through social media and storytelling
Key Performance Indicators which we will be tracking to monitor and measure our success.	<ul style="list-style-type: none"> Membership retention and renewal Volunteer participation & retention School program delivery demand Social learning & impact Socio-economic accessibility 	
Enhance Visitor Experience	MONOVA's programs and outreach activate	<ul style="list-style-type: none"> Cultivate opportunities for representation of diverse ages, voices, cultures, and histories of North Vancouver

Strategic Priorities		Objectives
	<p>deep audience connection to North Vancouver’s multigenerational and diverse voices and stories.</p>	<ul style="list-style-type: none"> ▪ Present balanced narratives that include difficult histories and truth telling ▪ Deliver exhibits and programs which encourage stewardship of the environment and increase community awareness and action related to the climate ▪ Promote opportunities for inter-generational learning and engagement ▪ Increase opportunities for engagement and learning in different languages ▪ Leverage the role of volunteers in creating interactive, immersive, and thought-provoking experiences ▪ Activate Museum & Archives spaces for residents to gather together, interact and engage in activities ▪ Enhance access to resources through high-quality programs and collections, both traditional and non-traditional to support lifelong learning ▪ Utilize technology to bring stories out of the Museum & Archives and into the community ▪ Improve and expand virtual access to MONOVA’s Museum & Archives collections to make them more accessible to the public
<p>Key Performance Indicators which we will be tracking to monitor and measure our success.</p>	<ul style="list-style-type: none"> - Visitor satisfaction of exhibits & programs - Sensory-friendly resources for diverse sensory needs - Use of technology for outreach into the community - Accessibility of MONOVA collections through online platforms - Engaging community through activities both on and off-site 	
<p>Forge and Maintain Strong & Diverse Partnerships</p>	<p>MONOVA leads and convenes a network of partnerships that enrich programs and spark meaningful community dialogue.</p>	<ul style="list-style-type: none"> ▪ Advance Reconciliation, maintain strong relationships with S̱kw̱wú7mesh and Səlílwətał Nations honouring Memoranda of Understanding (MOUs) and prioritizing Truth and Reconciliation & United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) ▪ Develop, maintain, and celebrate strategic partnerships that inform programs and interpretations and create opportunities for dialogue that include diverse perspectives ▪ Continue to explore opportunities to collaborate with municipal departments and other partner agencies such as libraries, North Vancouver Rec & Culture Commission, and North Shore Emergency Management. ▪ Participate in the development of a CNV and DNV Arts and Culture Strategy

Strategic Priorities		Objectives
		<ul style="list-style-type: none"> Increase collaboration with other local arts and culture organizations to provide a range of opportunities to better activate our community and Town Centres
Key Performance Indicators which we will be tracking to monitor and measure our success.	<ul style="list-style-type: none"> MOU's Partner Impact Joint partnerships Meeting of Truth & Reconciliation and UNDRIP objectives 	

Core Partnerships

Guidance and development of MONOVA’s strategic plan requires the coordination and alignment with the following core partners:

1. City of North Vancouver
2. District of North Vancouver
3. Skwxwú7mesh & Səlílwətał Nations

As part of our planning process, we renew our commitment to our core partners:

City & District of North Vancouver

- Facilitate regular communication, maintain strong connections, collaborate in discussion and decision making where appropriate
- Leverage mutual strengths, credibility, and knowledge toward shared objectives
- Create opportunities for community engagement collaboration between MONOVA and municipal partners

Squamish & Tsleil-Waututh Nations

MONOVA honours our relationship with the Skwxwú7mesh and Səlílwətał Nations who continue to steward the ancestral territories now recognized as North Vancouver. This relationship made formal through signed MOUs is integral to our ongoing commitment to working together in partnership. MONOVA’s Indigenous Voices Advisory Committee (IVAC) was created to ensure we honour the principles and objectives of the MOUs, work collaboratively with [Skwxwú7m](#) and [Səlílwətał](#) Nations and establish effective working relationships, approaches and protocols that help guide this collaborative work in the best possible way.

- Fulfill commitments as outlined in existing MOU's, continuing to review agreements together to ensure commitments are still reflective of community needs and desires over time
- Respond to Calls to Action as laid out in the Truth and Reconciliation Commission, in particular those Calls to Action related to Museums and Archives
- Engage the Nations to ensure their perspectives are represented in MONOVA galleries and programs
- Examine new ways to ensure ongoing interest in participation from local Nations, possibly through staff operations, annual planning and the North Vancouver Museum and Archives Commission
- Foster long-term connections with Skwxwú7mesh and Səlílwətał Nation cultural and language departments
- Ensure input is sought on relevant issues

MONOVA Volunteers

MONOVA volunteers are woven throughout every aspect of our strategic plan and are integral to engaging our community. Attending and participating in community days, building awareness, acting as ambassadors, and supporting the delivery of programs, are all deeply valued volunteer initiatives as we strive to create connection and belonging to North Vancouver's rich cultural fabric.

MONOVA' Strategic Planning Process

MONOVA began the 2024-2027 strategic planning process with a set of accomplishments to celebrate and a vision for how we seek to engage North Vancouver residents and visitors. The process served to evaluate and crystalize this shared vision and produced a set of tangible objectives needed to deliver on our mission which we present here in our new strategic plan.

It is essential for MONOVA to be forward-thinking, innovative, and responsive to the evolving needs of communities. This strategic plan outlines a roadmap for MONOVA: Museum & Archives of North Vancouver, to navigate the complexities of this contemporary landscape, leveraging new technologies, fostering collaboration, and embracing diversity to ensure our institution remains relevant, resilient, and impactful in the years to come.

We respectfully acknowledge that MONOVA: Museum & Archives of North Vancouver is located on the traditional lands of the Skwxwú7mesh and Səlílwətał First Nations, whose ancestors have lived here for countless generations. We are grateful for the opportunity to live, work and learn with them on unceded Coast Salish Territory.

THIS PAGE INTENTIONALLY LEFT BLANK



Background

- October 2020 Council recommendation to install noise monitors in the City
- May 2023 Budget approved for Noise Monitoring Equipment
- October 2024 Noise monitoring contractor installed 3 noise monitoring stations within the City

Complaints

Noise/Construction Complaints

- 2023 254 Complaints/165 Construction
- 2022 283 Complaints/180 Construction
- 2021 302 Complaints/172 Construction
- 2020 256 Complaints/166 Construction
- 2019 192 Complaints/121 Construction

Noise Monitoring Locations



▲ Existing Port of Vancouver Noise Monitors

CNV Noise Monitoring Locations

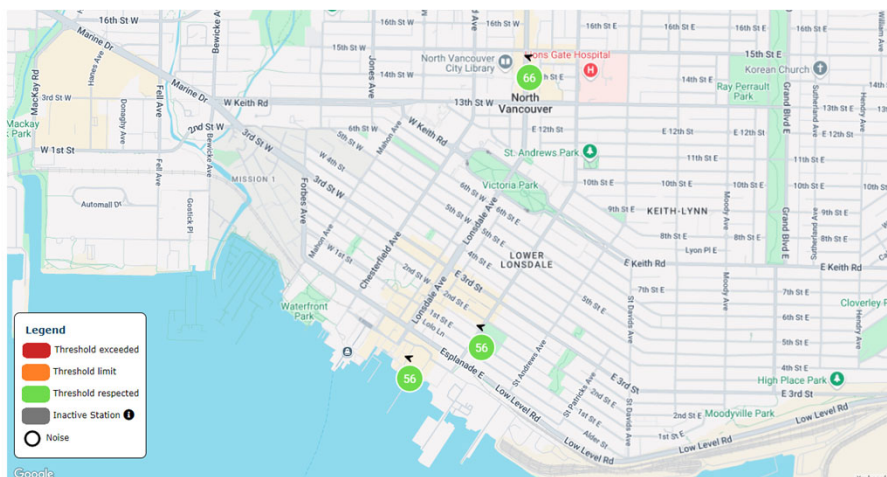
1. North Shore Neighborhood House (East 1st Street)
2. 1400 Block Lonsdale Avenue
3. The Shipyards

Appearance

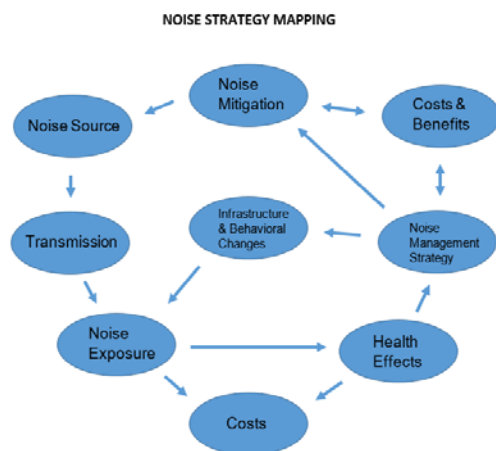


200 East 1st Street

Example of Live Monitoring Results



Strategy



Reasoning

- Public Health
- Quality of Life
- City Planning
- Environmental Impact
- Sustainability
- Regulation and Compliance
- Baseline Current Noise Levels

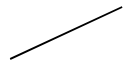




Thank you.

city
of north
vancouver

THIS PAGE INTENTIONALLY LEFT BLANK



 Department Manager	 Director	 CAO
---	---	--

The Corporation of **THE CITY OF NORTH VANCOUVER**
PUBLIC SAFETY – BYLAW SERVICES

INFORMATION REPORT

To: Mayor Linda Buchanan and Members of Council

From: Paul Duffy, Manager, Bylaw Services

Subject: INSTALLATION OF NOISE MONITOR STATIONS

Date: October 2, 2024 File No: 09-3900-01-0001/2024

ATTACHMENT

1. Report of the Manager, Bylaw Services, dated October 16, 2020, entitled “Noise Control Measures and Bylaw Review” (CityDocs [1989297](#))

SUMMARY

Three noise monitoring stations were recently installed at different locations throughout the City. The information gained from actively monitoring and reporting on noise trends will be used to baseline current noise trends, inform the City’s land use planning, project and inform environmental reviews, inform studies to assess opportunities for minimizing noise, and create a noise engagement strategy. Monitoring noise can be part of broader sustainability efforts to create a healthier, more livable and resilient urban environment.

BACKGROUND

At its Regular meeting of October 26, 2020, Council approved the following resolution:

“PURSUANT to the report of the Manager, Bylaw Services, dated October 16, 2020, entitled “Noise Control Measures and Bylaw Review”:

THAT staff be directed to engage subject matter experts to assist with a comprehensive review of noise issues in the City and report back on the establishment of a Noise Advisory Task Force to consider a long term strategy for managing noise in the City, with funding to be addressed in the 2021 budget;

THAT noise monitoring stations be installed and piloted in areas of the City to monitor noise trends, as described in Proposed Action 1;

THAT staff be directed to prepare a bylaw for Council consideration to amend the Noise Control Bylaw to add words “talking and singing with” to Paragraph 9, Schedule “B”, regarding amplified sound, as described in Proposed Action 2;

THAT the Noise Exemption Permit process, outlined in Part 4 of the Noise Control Bylaw, be reviewed and proposed amendments be included in the bylaw to amend the Noise Control Bylaw, as described in Proposed Action 3;

THAT staff be directed to prepare a bylaw for Council consideration to amend the Noise Control Bylaw to include an assessment of tonal and impulsive content of sound to be considered in any noise complaint assessment, as described in Proposed Action 4;

AND THAT the requirements for noise control construction signage be updated and proposed amendments be included in the bylaw to amend the Noise Control Bylaw, as described in Proposed Action 5.”

In January 2022, an acoustical company contracted by the City identified several companies that could provide a noise monitor network in the City.

Funding for this equipment and network was approved in the 2023 budget. While the intention was to obtain and install the noise monitoring devices in late 2023, our acoustical company sourced out a more cost effective system that would be available in early 2024.

In July 2024, utilizing a Request for Proposal process, the City awarded a noise monitoring contract to install three noise monitoring stations in the City over a 3-year period.

DISCUSSION

In consultation with the City’s noise monitoring contractor and several internal departments, the following locations were chosen to initiate the noise monitoring project:

1. In the vicinity of the upcoming North Shore Neighborhood House construction site. The City expects to gain valuable data on noise levels during each phase of construction. This data can be used to establish a baseline of ambient noise levels before construction begins, allowing for precise measurement of the impact during each phase (excavation, concrete, mass timber). This could provide insightful, not only for educational purposes, but also for future City planning and construction practices, where reducing noise pollution may be a consideration. The continuous monitoring will allow for real-time adjustments to mitigate noise impact, ensuring that any potential noise-related issues are addressed promptly.

2. In the vicinity of Central Lonsdale. Lonsdale Avenue undoubtedly contributes to urban noise, especially during peak hours. Installing a monitor on Lonsdale Avenue would allow for accurate measurement of noise levels in a busy urban setting. This data would be useful in understanding how traffic and daily activities contribute to the overall noise profile of the City and help in addressing any noise complaints from this area.
3. In the Shipyards area due to its high activity level and proximity to residential and commercial areas. Since this area is frequently activated by events, capturing noise data here will be invaluable in understanding the impact of both daily activities and special events on local noise levels.

The noise monitoring stations may be relocated should the City wish to monitor other areas in the community.

The City's noise monitoring contractor will be adding a link on the City website that will allow residents to access and view the real-time noise coming from these 3 areas.

FINANCIAL IMPLICATIONS

Funding has been approved from the 2023 budget.

INTER-DEPARTMENTAL IMPLICATIONS

In coordination with a number of City departments, initial locations have been determined. The Communications and Engagement division is involved and are developing a communications strategy to inform residents and interest holders.

STRATEGIC PLAN, OCP OR POLICY IMPLICATIONS

Noise monitoring is important for several key reasons:

1. **Public Health:** Prolonged exposure to high levels of noise can lead to health issues, including hearing loss, sleep disturbances, increased stress and cardiovascular problems. Monitoring helps identify areas where noise pollution may pose health risks to residents.
2. **Quality of Life:** Noise significantly affects daily lives and comfort. Monitoring helps cities reduce unwanted noise to improve the overall quality of life for their residents.
3. **Urban Planning:** Noise data is essential for urban planners to design quieter environments. It can inform decisions regarding zoning, infrastructure and public spaces to reduce noise impacts in residential and recreational areas.
4. **Environmental Impact:** Noise pollution can affect wildlife, particularly in urban areas, where animals rely on sound for communication, navigation and hunting. Monitoring helps assess these impacts and take measures to protect biodiversity.

5. Regulation and Compliance: Cities often have noise bylaws to regulate acceptable sound levels. Monitoring ensures that industries, construction sites and other sources comply with local bylaws and regulations to reduce harmful noise emissions.
6. Sustainability: Noise monitoring can be part of broader sustainability efforts to create healthier, more livable and resilient urban environments.

Overall, noise monitoring helps identify and mitigate the negative effects of noise pollution and fosters a healthier, more sustainable urban life for City residents.

RESPECTFULLY SUBMITTED:



Paul Duffy
Manager, Bylaw Services

**MINUTES OF THE REGULAR MEETING OF COUNCIL, HELD ELECTRONICALLY FROM
CITY HALL, 141 WEST 14TH STREET, NORTH VANCOUVER, BC, ON
MONDAY, OCTOBER 26, 2020**

REPORTS

14. Noise Control Measures and Bylaw Review – File: 09-3900-01-0001/2020

Report: Manager, Bylaw Services, October 16, 2020

Moved by Councillor Valente, seconded by Councillor Bell

PURSUANT to the report of the Manager, Bylaw Services, dated October 16, 2020, entitled “Noise Control Measures and Bylaw Review”:

THAT staff be directed to engage subject matter experts to assist with a comprehensive review of noise issues in the City and report back on the establishment of a Noise Advisory Task Force to consider a long term strategy for managing noise in the City, with funding to be addressed in the 2021 budget;

THAT noise monitoring stations be installed and piloted in areas of the City to monitor noise trends, as described in Proposed Action 1;

THAT staff be directed to prepare a bylaw for Council consideration to amend the Noise Control Bylaw to add the words “talking and singing with” to paragraph 9, Schedule “B”, regarding amplified sound, as described in Proposed Action 2;

THAT the Noise Exemption Permit process, outlined in Part 4 of the Noise Control Bylaw, be reviewed and proposed amendments be included in the bylaw to amend the Noise Control Bylaw, as described in Proposed Action 3;

THAT staff be directed to prepare a bylaw for Council consideration to amend the Noise Control Bylaw to include an assessment of tonal and impulsive content of sound to be considered in any noise complaint assessment, as described in Proposed Action 4;

AND THAT the requirements for noise control construction signage be updated and proposed amendments be included in the bylaw to amend the Noise Control Bylaw, as described in Proposed Action 5.

CARRIED UNANIMOUSLY



 Department Manager	 Director	 CAO
--	---	--

The Corporation of **THE CITY OF NORTH VANCOUVER**
COMMUNITY & PARTNER ENGAGEMENT DEPARTMENT

REPORT

To: Mayor Linda Buchanan and Members of Council

From: Paul Duffy, Manager, Bylaw Services

Subject: NOISE CONTROL MEASURES AND BYLAW REVIEW

Date: October 16, 2020 File No: 09-3900-01-0001/2020

The following is a suggested recommendation only. Refer to Council Minutes for adopted resolution.

RECOMMENDATION

PURSUANT to the report of the Manager, Bylaw Services, dated October 16, 2020, entitled "Noise Control Measures and Bylaw Review":

THAT staff be directed to engage subject matter experts to assist with a comprehensive review of noise issues in the City and report back on the establishment of a Noise Advisory Task Force to consider a long term strategy for managing noise in the City, with funding to be addressed in the 2021 budget;

THAT noise monitoring stations be installed and piloted in areas of the City to monitor noise trends, as described in Proposed Action 1;

THAT staff be directed to prepare a bylaw for Council consideration to amend the Noise Control Bylaw to add the words "talking and singing with" to paragraph 9, Schedule "B", regarding amplified sound, as described in Proposed Action 2;

THAT the Noise Exemption Permit process, outlined in Part 4 of the Noise Control Bylaw, be reviewed and proposed amendments be included in the bylaw to amend the Noise Control Bylaw, as described in Proposed Action 3;

THAT staff be directed to prepare a bylaw for Council consideration to amend the Noise Control Bylaw to include an assessment of tonal and impulsive content of sound to be considered in any noise complaint assessment, as described in Proposed Action 4;

AND THAT the requirements for noise control construction signage be updated and proposed amendments be included in the bylaw to amend the Noise Control

Bylaw, as described in Proposed Action 5.

ATTACHMENTS

1. Noise Control Bylaw, 1987, No. 5819 (Doc #501351)
2. Vancouver Coastal Health Recommendations (Doc #1940834)
3. How Loud is Too Loud, Health Impacts of Environmental Noise in Toronto (Doc #1937453)

SUMMARY

On September 9, 2019, Council resolved:

THAT staff review and recommended amendments to the Noise Control Bylaw, 1987, No. 5819;

THAT staff consider and recommend enforcement options for noise related infractions;

THAT staff consider and provide other mitigation strategies to minimize noise in the community;

AND THAT staff pilot and utilize crowd-sourcing and other existing technology solutions to monitor noise across our community, such that problem areas can be identified.

PURPOSE

The purpose of this report is to respond to Council's resolution of September 9th, 2019 and to propose a number of potential actions for Council's consideration in regards to mitigating noise in the City.

BACKGROUND

Noise, including noise from transport, industry, construction and neighbours is a prominent feature of any city. Noise produced by human activities has been increasingly recognized as a serious and growing environmental and health problem. According to the World Health Organization (WHO), noise is second to air pollution in the impacts it has on health. Noise pollution has been implicated in a variety of health disorders, ranging from stress and hypertension to permanent hearing loss. Noise is measured in decibels (dB) and extended and repeated exposure to sound at or above 85 dB can cause hearing loss.

The primary source of noise in cities is largely from widespread use of mechanical devices, mostly transportation and construction related. The City of North Vancouver began to regulate noise in 1952. The City's current Noise Control Bylaw (the "Bylaw") was adopted in 1987 and has only seen limited amendments since this time.

began to regulate noise in 1952. The City's current Noise Control Bylaw (the "Bylaw") was adopted in 1987 and has only seen limited amendments since this time.

For many years, the City has contracted and continues to contract the Environmental Health Department of Vancouver Coastal Health to provide technical assistance, i.e. decibel readings and reports, to assist with enforcement of the Bylaw. Vancouver Coastal Health (VCH) has provided input into the Bylaw review and their overview and recommendations are listed as Attachment 2.

DISCUSSION

Reducing the exposure to environmental noise to residents is multi-pronged and requires periodic assessment of the noise environment. Municipalities have the power to create laws and policies which can help reduce noise pollution. However, implementation of noise mitigation and noise minimizing regulations are not easy to implement and enforce. Successful noise reduction strategies require the active participation of residents, organizations and other City partners.

Comprehensive Assessment of the Issue and Long-term Strategy

Given the complexity of the issue, a comprehensive review of noise issues and a long-term strategy is required in order to provide an effective response. The City does not have the expertise to undertake such a review so staff are recommending subject matter experts be hired to assist staff in preparing a long-term strategy for Council's consideration. Staff have submitted a project sheet for funding to pursue this direction. This will allow the City to work with experts in the field to determine which noise reduction strategies will be the most effective.

For example, long-term noise mitigation strategies can be implemented through the creation of policies which target noise emanating from the transportation network construction and activities such as low-noise road surfaces, redesigning street spaces, landscape and construction design.

In order to build a successful noise reduction strategy, the City, businesses and residents must work together. To develop a long term noise reduction strategy, staff recommend that Council create a select committee to examine noise issues and make recommendations for improvement. This committee group will include residents, businesses and related associations. Staff will report back to Council on the establishment of the committee with recommendations on terms of reference and composition.

In addition, staff will work to gather and share baseline information including deploying monitoring devices and crowd sourcing devices to understand the noise and societal impacts.

Further, to be successful in noise mitigation processes, community engagement and education must take place. This body of work will begin with the approval of a 2021 budget.

Current Actions

In the interim, the City is routinely considering noise mitigation as part of their day to day work and are implementing the following steps to minimize some noise impacts in the City.

Current Noise Mitigation Strategies

City Organization Noise Mitigations

1. City Vehicles: Aside from the lower noise, electric vehicles do not emit harmful pollutants that internal combustion engines produce and therefore provide improved air quality for the operator and nearby public. Currently 10% of the City's vehicles are electric. Staff will be completing a technical review of the electrical infrastructure upgrades required at City facilities to be ready to support a large scale transition to an electric fleet in the next few years. As more vehicle options become available, the City will continue to explore a wider range of vehicles including pickup trucks and heavier vehicles.
2. Parks and Environment Equipment Noise: Staff are continuously looking at new equipment and technology to assist in their day-to-day operations. Although a gradual switch to electric has been more about emission reduction, noise reduction has been a secondary benefit. While the costs of electric equipment has been more than gas powered equipment, their use has been beneficial to both staff and the environment. Staff are currently using battery hand-held blowers, back pack blowers, grass trimmers, push lawn mowers, a pole saw and chainsaw and are looking at purchasing an electric ride-on mower. The City will continue to add electric powered items to its lawn maintenance equipment as technology improves and purchasing costs are reduced.

City-Wide Noise Mitigations

1. Port of Vancouver: Approximately 7 km of shoreline is managed by the Port of Vancouver, consisting of five major terminals: Neptune, Lynnterm, Cargill, Richardson International and G3 in addition to the Vancouver Dry Dock maintenance facility. The Port of Vancouver can be noisy with terminal operations, car and truck traffic, rail car movement, train whistles, ship engines and construction. Port operations are industrial by nature and some of the terminals operate 24/7. Over the years, noise from port related activities has been an issue. Both the port and terminal operators have implemented measures such as noise monitoring and equipment upgrades in recent years to help reduce noise pollution. The City also has a representative on the North Shore Waterfront Liaison Committee which is comprised of local residents, North Shore municipalities, industry and the port authority. The Committee's role is to liaise between different groups, share information and address local port-related issues such as noise. The City will continue to use this forum as a means of championing the City residents concerns about noise or port related issues.

2. Transportation: Noise from motor vehicle traffic is an increasingly prominent feature of any municipality. The default speed limit in the City is 50 km/h, unless otherwise posted. To date, the City has moved to lower speeds around schools, playgrounds and along some designated bicycle routes in order to improve safety for vulnerable road users. These measures have the added benefits of reducing travel-related noise from vehicles. City staff are exploring opportunities to provide expanded “slow speed” zones in other areas of the City. Combustion engines account for a large portion of noise generated from vehicles. The City is working to provide an expanded network of public charging stations in order to further incentivize the use of zero emission or electric vehicles in the City, which are demonstrated to be quieter.

Noise related to trucks and delivery vehicles is common throughout the City. A comprehensive review of the City’s goods movement network and policies will be undertaken as part of the Mobility Strategy update, which may include exploring the feasibility of enabling smaller delivery vehicles in some areas of the City and a review of existing truck routes. Lastly, the City will continue to encourage active transportation to provide the enabling conditions for people to choose walking, cycling and transit.

3. New Construction Design and Construction Quality: With the construction of new buildings, there are opportunities to address noise mitigation through building design and construction quality. Newer buildings that are built to higher energy standards are inherently better at mitigating outdoor noise before it enters indoor living areas and energy standards are rising with the implementation of the Energy Step Code. Development projects requiring rezoning are generally expected to exceed the minimum requirements for energy efficiency and noise covenants have been secured for certain projects to ensure noise mitigation is incorporated into new buildings where there is a high potential for noise pollution from sources such as rail and port activities. Outside of the rezoning process, noise mitigation requirements were added to the Zoning Bylaw with the rezoning of Moodyville and adoption of the Moodyville Development Permit Area Guidelines. These requirements currently apply only to projects within the Moodyville area.

Further opportunities for noise mitigation that could be explored include:

- Introducing a rezoning policy with a schedule (map) of where enhanced noise control measures will be secured through covenant
 - Investigating retractable balcony enclosure systems as a means of mitigating noise transmission
 - Incentives/subsidies for building owners to upgrade old windows
4. Building and Construction Processes: The mitigation of noise generated during both the construction and operation of a building is integrated into the Building Permit application review and construction administration process. For example, frequent noise-generating equipment such as heat pumps and air conditioning units are identified in the plan review stage and steps are taken to ensure appropriate equipment selection and siting in relation to adjacent residential uses.

Prior to the commencement of any construction activity, site safety signage must be posted; this signage includes the City's permitted hours of construction, as well as an after-hours telephone number through which City staff can be reached at any time of day or night to address construction-related concerns, including noise. Building staff also administer the Noise Control Bylaw exemption application process, through which construction sites may request variances to allow for extended or augmented work hours. The Construction Ambassador position in Bylaws and the requirement of Good Neighbour Agreements for construction projects both of which can address excessive noise from construction sites will continue.

Potential Immediate Actions to Mitigate Noise

In advance of an assessment and development of a long-term strategy there are a number of potential actions that the City can undertake to address some noise issues. The following potential actions outline five (5) recommendations from staff that may assist in benchmarking our current noise levels while introducing policy and regulations to minimize some noise in the City.

Noise Monitoring

Potential Action 1: Install noise monitoring sensors in key areas of the City to monitor and baseline noise levels.

Many cities are beginning to actively engage in monitoring community noise. The Port of Vancouver has been monitoring noise on the north and south shores of the Burrard Inlet since 2013. The Port of Vancouver noise monitoring program is used to better understand the source and intensity of port related noise and to help respond to community concerns regarding noise. Actively monitoring, mapping and reporting on noise trends highlights the importance of considering noise impacts in policy and planning decisions.

Measuring noise over a period of time in key areas of the City can be used to obtain a better understanding of the existing noise environments. Initiating a noise monitoring pilot program in the City would assist in identifying the noise trends and determine how noise levels are changing overtime and would utilize this information in future transportation, planning and building processes.

Although there are two types of noise monitoring solutions that could be deployed depending on the intended use of the data collected, staff are recommending noise monitoring sensors for planning and baselining purposes only. This cost is significantly less than the second option which is supported through with CCTV cameras and comes with privacy issues. The estimated cost for this solution would be \$10,000 for the installation of this noise monitoring network and \$800 per sensor for future additions to the network.

Staff are recommending to deploy noise monitoring sensors to monitor and baseline noise levels in the City.

Potential Action 2: Amend the Bylaw to include the words “talking and singing with” to paragraph 9, Schedule “B”.

On various dates in the summer of 2012, a street performer was issued six Bylaw enforcement notices relating to amplified music regarding her performances in the Civic Plaza area. The street performer successfully challenged these notices in the Supreme Court of British Columbia. The Court set aside the Bylaw notices based on their interpretation of paragraph 9, Schedule “B” of the Bylaw which states, “Shouting, the use of megaphones or voice amplification equipment, the making of any other noise, noisy conduct by any person in or at any street, wharf, dock, pier or public place, is prohibited, save and except Peace Officers or Fire Fighters while in the conduct of their lawful duty”. The Courts interpreted that “the use of equipment to amplify the spoken voice did not specify the use of equipment to amplify a “singing voice”.

Bylaw Services has investigated 12 busking complaints with amplified sound thus far in 2020. To address the gap in the Bylaw that was highlighted in the Court decision, staff recommend that the word singing should be included as follows; “Shouting, *talking or singing with* [emphasis added] the use of megaphones or voice amplification equipment, the making of any other noise, noisy conduct by any person in or at any street, wharf, dock, pier or public place, is prohibited, save and except Peace Officers or Fire Fighters while in the conduct of their lawful duty”.

Adding these additional words to this section will close the gap identified by the Court to allow enforcement of this section of the Bylaw. This would provide an enforcement option in regards to amplified music.

Potential Action 3: Enhance the Noise Exemption process.

Part 4 of the Bylaw sets out an application process for a noise exemption from any provision of this Bylaw. The majority of these noise exemption permits are issued for construction outside normal construction hours. While a significant portion of the process is current and applicable, there are portions that need to be updated. The following are a list of proposed updates to this process;

1. Review the decision making process for both construction related applications and non-building related applications based on input from the noise advisory committee;
2. Not only consider the justification and reasoning for the noise exemption request but also consider the past performance of the site in the evaluation process;
3. Clarify the justification and reasons for exemptions; and
4. Remove outdated terminology in the process.

Since the application for a noise exemption permit was included in the Bylaw in 2004, it has not been updated. Currently, reasons for justification for a noise exemption permit is not set out in this Bylaw. Taking into account the past history of the site will provide an incentive to minimize the impacts of construction to the surrounding neighborhood from the beginning of the project.

Staff recommend to enhance the noise control exemption permit process to ensure strong communication and construction management for noise outside permitted hours and propose amendments to the Bylaw as required.

Potential Action 4: Include an assessment of tonal noise of sound in any noise complaint assessment.

Often the sound of energy from a noise source will be spread over a wide band of frequencies. Tonal noise is a noise source which will emit noise that is concentrated in a narrow part of the spectrum or contains a high portion of energy at a single frequency. Examples of sources that can cause tonal noise includes circular saws, fans, compressors, motors and transformers. Most have moving parts that rotate or vibrate at a given audible frequency. Humans are quite good at selectively hearing tones. Tonal noise is generally more noticeable and more annoying than non-tonal noise when both are emitting the same level of noise.

More municipalities are beginning to add decibels penalties to the measured noise readings which contains tonal noise. There are a number of assessment tools that are currently in use to adjust the measured noise levels and factor in the penalties for tonal noise. The City of Victoria and the City of Richmond currently use adjustment factors for tonal noise. The number of mechanical noise complaints investigated by the City each year is small. Out of the small number of complaints, there may be a small percentage that would be a borderline breach or just under the maximum permitted noise level. With the additional penalty of 5 decibel weighting, these complaints would become a breach of the Bylaw requiring the owner to address the noise emanating from the device. Adding tonal noise adjustment penalties may address those sounds that may not be in breach of the decibel readings but because of their noticeable and annoying characteristics, these sounds can be addressed with this added penalty.

Vancouver Coastal Health currently have the capability to assess tonal noise with their current equipment. While it is difficult to determine the actual cost to the business or home owner who is in breach of the Bylaw because of tonal noise, considerations are given to the life span of the equipment, the extent of the decibel readings and/or proximity to new construction before a course of action is plotted.

Staff recommend to add tonal adjustment penalties to noise complaints containing tonal noise.

Potential Action 5: Update the Bylaw requirements on posting noise control construction signage around a construction site.

Considerate construction requires a conscious effort in applying precautionary measures and establishing communications with the surrounding neighbors. Although the City currently recommends that signage be placed on all street frontages surrounding a construction site, the Bylaw only requests one sign. Under the Bylaw, a noise control sign is required to be posted at any construction site with a permit value over \$500,000. This sign must display construction hours, name and contact number of the general contractor, a 24 hour contact number for complaints and a City of North Vancouver noise control number. Our current Bylaw only calls for a sign to be posted in

a prominent location on the property visible from at least one adjacent street. Requiring signs on all exposed sides of the construction site would provide information to neighbors regarding noise related issues. This requirement will add a small additional cost to the developer and it may add an additional environmental impact in disposing of signage at the end of the project.

Staff recommend amending the Bylaw to update the signage requirements to enhance the efforts of keeping the neighbors informed and aware of the construction project.

Enforcement/Education Opportunities

1. Construction Ambassador Program: In late 2014, Council directed staff to take a series of actions to mitigate the effects of several significant redevelopment projects occurring in Lower Lonsdale. The Construction Ambassador Program position was created to take on the role of pro-active construction site monitoring and responding to construction related complaints. As construction noise complaints continue to form a significant amount of noise complaints received by the City, staff reviewed the program during the summer of 2019. Staff determined that the program had not provided the impact that was initially intended. The review indicated that Bylaw education remained the priority with very few steps toward enforcement. Subsequent to the review, education remains a priority, however if a pattern of complaints develops, Bylaw Notices are issued as a future deterrent. From January to October 13th, 2020 there have been a total of 24 Bylaw Notices that were issued for construction noise. Staff may also escalate problem sites to the Chief Building Official who has the ability to issue a "Stop Work" order.
2. The Environmental Health Department of Vancouver Coastal Health has been contacted and have offered to provide presentation(s) to building and planning staff on the type of files that they investigate on behalf of the City. This education can assist in consideration and early intervention to prevent the noise issues from surfacing at the end of the building projects.
3. The City construct a noise web page. The City can educate the residents on noise in our environment. Making information available and accessible to the public helps to proactively manage public expectations about enforcement of noise related issues. The site can provide information on noise, access the noise measurements from noise monitoring stations, how to report noise related issues, who to contact, such as the City for home, construction sites or the Port of Vancouver for port noise or CN Rail for train noise. The City can also display the noise policy and strategies to mitigate noise in the City.

FINANCIAL IMPLICATIONS

As mentioned, any noise mitigation strategies must take into account a vast number of technical, operational and economical factors. The cost-benefit ratios of all solutions have to be considered. There are studies that have revealed substantial costs are associated with noise and abatement in economic, social and health terms.

In order to engage noise experts, residents, and community partners to develop a long-term noise mitigation strategy, staff have submitted a project sheet for \$50,000 in funding to pursue this direction. This will allow the City to work with committee members to determine which noise reduction strategies will be the most effective. This body of work would begin with the approval of a 2021 budget.

Noise complaints contribute to the cost of noise pollution. Bylaw Services, Police and Vancouver Coastal Health spend a significant amount of time investigating noise complaints. One Bylaw Services position is focused primarily on construction complaints which takes away time from other enforcement activities.

Should the City begin to monitor noise, there will be an approximate \$15,000 in start-up costs for equipment and staff would need to explore funding options. It will also require additional staff time to process and/or post the noise data.

There are costs that come with moving to an electric fleet of vehicles, while these costs can be built in overtime, there will be an increase in new vehicle purchases. Early feedback from staff on the lawn maintenance equipment has found the technology not yet comparable to that of gas powered lawn maintenance equipment. Staff are having to purchase additional batteries to ensure a full days use out of the lawn maintenance equipment.

And finally, while difficult to quantify in terms of financial implications, sleep disturbance is one of the most common consequences of noise pollution. When sleep is interrupted, memory, creativity and judgement can become impaired. This can impact the health and productivity of our residents.

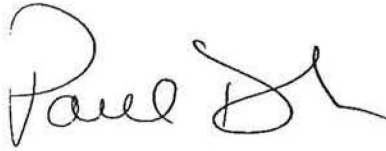
INTER-DEPARTMENTAL IMPLICATIONS

Various sections within the City plan and implement policies to mitigate noise. Transportation, Planning, Environment, Building and the RCMP have been consulted to supply information contained within the report.

STRATEGIC PLAN, OCP OR POLICY IMPLICATIONS

These recommendations would align with all the priorities identified in the City's Strategic Plan including; "A City for People", "A Liveable City", "A Vibrant City", "A Connected City" and "A Prosperous City". By reducing the negative effects of noise pollution, there will be less burden on our environment, our residents and the economy. Not only will such an environment promote a more active lifestyle such as walking, cycling and active recreation which will also reduce noise levels from transportation, it will contribute to the health and wellbeing of all residents in the City.

RESPECTFULLY SUBMITTED:



Paul Duffy
Manager, Bylaw Services



THE CORPORATION OF THE CITY OF NORTH VANCOUVER
“NOISE CONTROL BYLAW, 1987, NO. 5819”

CONSOLIDATED FOR CONVENIENCE – JANUARY 24, 2011

Amendment Bylaw, 1993, No. 6300	Schedule B6
Amendment Bylaw, 1998, No. 7053	Schedule “B”
Amendment Bylaw, 2003, No. 7513	Statutory Holidays
Amendment Bylaw, 2004, No. 7578	Application for Exemption
Amendment Bylaw, 2004, No. 7581	Ticket Information
Amendment Bylaw, 2004, No. 7585	Schedule B & B6
Amendment Bylaw, 2008, No. 7943	Bylaw Notice Process
Amendment Bylaw, 2008, No. 7944	Addition to Schedule A
Amendment Bylaw, 2011, No. 8121	Power Gardening or Building Maintenance Equipment

THE CORPORATION OF THE CITY OF NORTH VANCOUVER

Bylaw No. 5819

A Bylaw to control Noise within the Municipality

WHEREAS Section 932(c) of the Municipal Act empowers the Council by bylaw to regulate or prohibit the making or causing of noises or sounds in or on a highway or elsewhere in the Municipality which disturb, or tend to disturb, the quiet, peace, rest, enjoyment, comfort, or convenience of the neighbourhood, or of persons in the vicinity, or which in the opinion of the Council, are objectionable or liable to disturb the quiet, peace, rest, enjoyment, comfort, or convenience of individuals or the public, and to make different regulations or prohibitions for different areas of the Municipality;

AND WHEREAS Section 932(d) of the Municipal Act empowers the Council by bylaw to prevent or prohibit persons from shouting, using megaphones and making other noise in or at or on streets, wharves, docks, piers, steamboat landings, railway stations or other public places;

AND WHEREAS Section 120 of the Motor Vehicle Act grants to the Corporation certain powers to regulate traffic, as traffic is in that Act defined, and grants to the Corporation certain powers to delegate to an officer or employee of the Corporation, the authority to exercise said powers to regulate traffic;

AND WHEREAS Regulation 7A.01 of the regulations to the Motor Vehicle Act prohibit a person from causing noise by operating a motor vehicle in any of the ways set out in the said regulations:

NOW THEREFORE the Council of The Corporation of The City of North Vancouver, in open meeting assembled, enacts as follows:

PART 1 - TITLE

101 This Bylaw shall be known and cited for all purposes as “**Noise Control Bylaw, 1987, No. 5819**”.

PART 2 – DEFINITIONS

- 201** In this Bylaw unless the context otherwise requires:
- 201.1 in the absence of specific provisions herein to the contrary, words used in this Bylaw shall have the meaning, if any, given to them by definition in the Municipal Act, R.S.B.C. 1979 c. 290 and amendments thereto or, if not defined therein, the meaning, if any, given to them by definition in the Motor Vehicle Act R.S.B.C. 1979 c.288 and amendments thereto;
 - 201.2 wherever in this bylaw the masculine or singular term is used it shall be understood that the reference shall include the feminine and the plural where the context so requires;
 - 201.3 where any word or abbreviated word or abbreviated term or abbreviated name that is not defined in this bylaw, or where any technical standard that is not set out in this bylaw, is used in this bylaw, such word, abbreviated word, abbreviated term, abbreviated name, or technical standard shall be interpreted by reference to the definitions and technical standards last published by the Canadian Standards Association (C.S.A.), or American National Standards Institute (A.N.S.I.), or the International Organization for Standardization (I.S.O.), or the International Electro-Technical Commission (I.E.C.), or the Society of Automotive Engineers (S.A.E.), or the Machinery and Equipment Manufacturers Association of Canada (M.E.M.A.C.), as the case may require.
 - 201.4 “**acoustic calibrator**” is an electro-mechanical or mechanical device used for the calibration of sound level meters which meet the specifications for such devices which specifications are set out or described in this section;
 - 201.5 “**A-weighting**” is the frequency weighting characteristic as specified in I.E.C. 123 or I.E.C. 179, which approximates the relative sensitivity of the human ear to different frequencies (pitches) of sound;
 - 201.6 “**A-weighted sound pressure level**” is the sound pressure level modified by application of the A-weighting characteristic and is measured in A-weighted decibel, sometimes denoted “db(A)”;
 - 201.7 “**activity area**” includes any area of the municipality not designated as either a mixed area or as a quiet area, except any residential uses located in conjunction with commercial or industrial uses located on the same premises are deemed to be in a quiet area for the purposes of determining acceptable sound levels from non-commercial and non-industrial uses.
 - 201.8 “**ambient sound level**” means the general background sound level at or in the immediate vicinity of a point of reception determined within a reasonable time before or after the time a noise is alleged to have been received at such point of reception;

- 201.9 **“Bylaw Officer”** has the same meaning as the “City of North Vancouver Bylaw Enforcement Bylaw, 2005, No. 7675”, Section 15.
- 201.10 **“C-weighting”** is the frequency weighting setting of an approved sound meter which approximates the inverse of the 100 phon equal loudness contour. The ear may respond closer to the C-weighting curve at high sound levels.
- 201.11 **“City”** means The Corporation of the City of North Vancouver;
- 201.12 **“commercial”** means the use involving the sale or exchange of goods, materials and things, including the extension of services to persons, includes, but is not confined to financial and recreational services;
- 201.13 **“construction”** is an activity which includes erection, alteration, repair, relocation, dismantling, demolition, structural maintenance, painting, moving, land clearing, earth moving, grading, excavating, the laying of pipe and conduit (whether above or below ground level), street and highway building, concreting, equipment, installation and alteration, and the structural installation of construction components and materials in any form, or for any purpose, and includes any work being done in connection therewith;
- 201.14 **“construction equipment”** means any equipment or device designed and intended for use in construction, or material handling, including, but not limited to, air compressors, pile drivers, pneumatic or hydraulic tools, bulldozers, tractors, excavators, trenchers, cranes, derricks, loaders, scrapers, pavers, generators, off-highway haulers or trucks, ditchers, compactors and rollers, pumps, concrete mixers, graders, or other material handling equipment;
- 201.15 **“continuous sound”** means any sound occurring for a duration of more than three minutes, or occurring continually, sporadically or erratically, but totalling more than three minutes in any fifteen minute period of time;
- 201.16 **“Council”** means the City Council of the City;
- 201.17 **“decibel”** means the ratio between levels of sound pressure expressed at 20 times the common logarithm of the ratio of sound pressure to a reference quantity of 2×10^{-5} Pascals;
- 201.18 **“daytime”** means from 0700 hours to 2000 hours of the same day;
- 201.19 **“emergency vehicle”** shall have the meaning given to the interpretation section of the Motor Vehicle Act;
- 201.20 **“highway”** shall have the meaning given to it by the Motor Vehicle Act, and also includes boulevards and sidewalks;
- 201.21 **“holiday”** shall have the meaning given to it by the Interpretation Act of B.C.;

- 201.22 **“industrial”** means a use providing for the processing, fabricating, assembling, storing, transporting, distributing, wholesaling, testing, servicing, repairing, wrecking, or salvaging of goods, materials, or things, includes the operation of truck terminals, docks, railways, passenger depots, and bulk loading and storage facilities;
- 201.23 **“mixed area”** includes any area of the municipality where the absence of noise is of particular importance to persons in that area at any time, and includes any area within the municipality shown on Schedule “A” attached hereto. Any residential uses located in a mixed area are deemed to be in a quiet area for the purpose of determining acceptable sound levels from non-commercial and non-industrial uses;
- 201.24 **“municipality”** means the geographic area over which the City is the Municipal Government;
- 201.25 **“nighttime”** means from 2000 hours of any day to 0700 hours of the following day;
- 201.26 **“noise”** includes:
1. any sound, continuous sound or non-continuous sound which disturbs or tends to disturb the peace, quiet, rest, enjoyment, comfort or convenience of the neighbourhood in which such sound is received, or, of any reasonable person in the vicinity of the source of such sound who receives such sound; or,
 2. any sound, continuous sound or non-continuous sound, which exceeds a sound level permitted by this bylaw at the point of reception of such sound.
 3. any sound, continuous sound or non-continuous sound listed in Schedule “B” attached hereto;
- 201.27 **“Noise Control Officer”** is the person appointed by resolution of Council, and may be the Medical Health Officer of the municipality, the Vancouver Coastal Health Authority and includes the Chief Public Health Inspector and any Public Health Inspectors, properly delegated to act for him or on his behalf; and/or the Bylaw Enforcement Officer; and/or any Peace Officer; and/or any employee of the municipality properly delegated by Council;
- 201.28 **“person”** includes a Corporation, Partnership, or Party and the personal or other legal representatives or a person to whom the context can apply according to law;

- 201.29 **“point of reception”** means:
1. for residential uses any place on individual residential premises where sound originating from any source, other than a source of the same individual residential premises, is received; or,
 2. for non-residential uses any place on premises where sound originating from any source, other than a source on the entirety of the same non-residential use premises, is received; or,
 3. any place on a highway where sound is received;
 - .4 for the purposes of Section 307(a) means any place in the municipality more than 15 metres from a source of sound where sound is received;
 5. for the purposes of Section 308 means any place in the municipality more than 6 metres from a vehicle where sound from such vehicle is received;
- 201.30 **“Power Gardening or Building Maintenance Equipment”** means electric or gasoline powered equipment used for landscaping or building maintenance including but no limited to lawn mowers, yard trimming devices, power washers, mechanical painters or sprayers, leaf blowers, tree or stump grinders, and compressors .
- 201.31 **“Statutory Holiday”** means New Year's Day, Good Friday, Victoria Day, Canada Day, British Columbia Day, Labour Day, Thanksgiving Day, Remembrance Day, Christmas Day and any other holiday prescribed by regulation;
- 201.32 **“quiet area”** includes any area of the municipality where the absence of noise is of particular importance to persons in that area at any time, and includes any area within the municipality shown on Schedule “A” attached hereto;
- 201.33 **“slow response”** is a dynamic characteristic setting of a sound level meter, which setting meets the specifications listed in A.N.S.I. Type 11 or I.E.C. 123;
- 201.34 **“sound”** is an oscillation in pressure, stress, particle displacement or particle velocity, in a medium with internal forces (i.e. elastic, viscous), or the super-position or such propagated oscillations, which oscillations are capable of causing an auditory sensation;

- 201.35 **“sound level”** means:
1. the average of the medians of 5 or more sets of lower and upper measurements of a series of A-weighted sound pressure levels read or recorded at a point of reception on the slow response of a sound level meter;
 2. for the purposes of Section 308 means the maximum measurement of an A-weighted sound pressure level read and recorded at a point of reception on the slow response setting of a sound level meter;
 3. for the purposes of Section 317 means the average of the medians of 5 or more sets of lower and upper measurements of a series of a C-weighted sound pressure level read and recorded at a point of reception on the slow response setting of a sound level meter;
 4. where an integrating sound level meter is used, suitable technical and mathematical means shall be used to determine the source sound pressure level. A-weighted or C-weighted sound pressure levels must be recorded at a point of reception using the equivalent to slow response setting.
- 201.36 **“sound level meter”** is a device listed in A.N.S.I. Type 11 or I.E.C. 123, that is calibrated for the measurement of sound and includes Bruel and Kjaer’s Precision Sound Level Meter Type 2215;
- 201.37 **“vehicle”** shall have the meaning given in the interpretation section of the Motor Vehicle Act.

PART 3 – REGULATIONS

301 Objectionable Sounds

The Council deems that the sounds listed on Schedule “B” attached hereto, are objectionable or are liable to disturb the quiet, peace, rest, enjoyment, comfort or convenience of individuals, or the public at a point of reception in the municipality, notwithstanding that such sound may not constitute a breach of any other provision of this bylaw.

302 Noise Prohibited

302.1 A person shall not make, nor cause to be made, nor permit to be made by:

1. any other person, or by any animal, or by any bird or fowl, if any of the same are in the control of such first-mentioned person;
2. any vehicle, conveyance, vessel, machinery, equipment or device, if any of the same are in the control of such first-mentioned person;
3. an activity, if any of the same are in the control of such first-mentioned person;

a sound, which when received at a point of reception in the municipality, shall constitute a noise as defined or determined pursuant to the provisions of the bylaw;

302.2 Neither the owner or any occupier of real property shall bring on to, or keep, or use, or cause, or permit to be brought on to, to be kept, or to be used, on such real property:

1. any vehicle, conveyance, machinery, equipment or device;
2. any animal, or bird, or fowl;

which is the source of a sound, which when received at a point of reception in the municipality, shall constitute a noise.

302.3 Neither the owner, occupier, company, contractor nor worker shall make, nor cause to be made, nor permit to be made, objectionable or disturbing sounds pursuant to Section 301 and Section 8, of Schedule “B”.

303 Quiet Area Sound Level

A person may make, cause or permit to be made, a continuous sound with a sound level during the daytime of 55 decibels or less, and during the nighttime of 45 decibels or less when received at a point of reception within a quiet area.

304 Mixed Area Sound Level

A person may make, cause, or permit to be made, a continuous sound with a sound level during the daytime of 55 decibels or less, and during the nighttime of 50 decibels or less when received at a point of reception within a mixed area.

305 Activity Area Sound Level

A person may make, cause, or permit to be made, a continuous sound with a sound level during the daytime of 60 decibels or less, and during the nighttime of 55 decibels or less when received at a point of reception within an activity area.

306 Non-Continuous Sound Levels

A person may make, cause, or permit to be made, a non-continuous sound with a sound level during the daytime of 80 decibels or less, and during the nighttime of 75 decibels or less when received at a point of reception in the municipality.

307 Construction and Power Gardening Equipment Sound

Notwithstanding the provisions of Sections 303, 304, 305, or 306 hereof; a person may use or cause or permit to be used, equipment which causes a continuous sound level;

- a) resulting from construction which does not exceed a continuous sound level of 85 decibels when measured at a point of reception;
- b) resulting from Power Gardening or Building Maintenance Equipment during the daytime, except between 0700 hours and 0900 hours on Saturday, Sunday or a Public Holiday, if the sound of such lawn mower, or other equipment, when received at such point of reception, does not exceed a sound level of 77 decibels.

308 Vehicle Sound Levels

Notwithstanding the provision of Section 303, 304, 305 and 306 hereof, a person may make, cause or permit to be made, a sound by a vehicle while on a highway not in excess of the sound levels prescribed in the following table:

	Maximum sound level on highways with speed limits of 50 km/h or less	Maximum sound level on highways with speed limits in excess of 50 Km/h
Vehicles of licenced net weight 2,200 Kg. or more	75 decibels	85 decibels
Other vehicles	70 decibels	75 decibels

309 Vehicle Sound

A person shall not use a horn or other warning device on a vehicle except for the purpose of giving an audible warning where necessary for the safe operation of such vehicle, or for the safety of others on the highway.

310 Refuse Collection

No person shall collect refuse from receptacles or refuse containers, in a quiet area or in a mixed area, during the nighttime.

311 Security Alarm

No person shall maintain, possess or use a security system, burglar alarm or other device equipment with an alarm which sounds in the premises and is intended to direct attention to trespass or an unlawful act, except where such system is provided with an operating automatic shut-off device which stops the alarm sound within 15 minutes.

312 Emergency Exemption

A person may perform works of an emergency nature in order to preserve the life or health of people, or to protect property, without regard to any sound level prescribed by this bylaw for what, in the opinion of the Noise Control Officer at the scene of the emergency, is the duration of the emergency, and for the purpose of this bylaw, an emergency shall be deemed to include all situations wherein, in the Noise Control Officer's opinion, works are being carried out to serve the public interest and cannot reasonably be carried out within the sound levels prescribed by this bylaw.

313 City Exemption

Notwithstanding Sections 303, 304, 305, 306 and Schedule "B", the City or its agents, may at any time:

- 313.1 construct, alter, relocate, repair or demolish buildings and structures;
- 313.2 excavate, grade, or fill land;
- 313.3 engage in well-pointing;
- 313.4 construct, install, alter, relocate, repair or remove public facilities or utilities;
- 313.5 construct, alter, relocate, repair, fill, or excavate highways.
- 313.6 allow community and City sponsored special events on City streets or parks.

314 Emergency Vehicle Exemption

A driver of an emergency vehicle may disregard all of the provisions of this bylaw while acting in the course of his lawful duty.

315 Right of Entry

Pursuant to Section 310 of the Municipal Act, any Noise Control Officer may enter at all reasonable times upon any property in order to ascertain whether the provisions of this bylaw are being observed.

316 Noise Control Construction Signs

Where the application involve a building constructed under Part 3 of the BC Building Code or where the building permit value exceeds \$500,000.00; the holder of the building permit shall prominently post a sign on that parcel of land, and shall maintain the sign during the course of construction, in accordance with the requirements set out in this section. Such a sign may be a separate sign or be incorporated into a Construction Site Sign as defined in the Sign Bylaw. A Noise Control Bylaw sign must:

- (a) be posted in a prominent location on the parcel of land that is clearly visible from at least one adjacent street.
- (b) shall be limited to a maximum height from grade of 3.65 metres;
- (c) be a maximum area of 3.0 square metres for Part 3 buildings and a maximum area of 1.5 square metres for single or two family dwellings;
- (d) contain script that is at least 5.08 cm high, and is in a colour that contrasts with the background of the sign; and
- (e) set out the hours permitted for construction under this By-law, and any exemptions to the construction hours which may have been granted;
- (f) state the name of the general contractor for the construction on the parcel of land, the name and telephone number of an individual representative of that general contractor;
- (g) give a monitored 24-hour telephone contact number for complaints and concerns, and the City of North Vancouver Noise Complaint telephone number.”

317 Commercial premises C-weighted Noise Levels

No person shall in any commercial premises make, cause, or permit to be made or caused continuous or non-continuous noise or sound of a radio, television, CD player or other sound playback device, public address system, or any other music or voice amplification equipment, musical instrument, whether recorded or live, whether amplified or not, the level of which during the daytime exceeds a rating of 70 dBC, or during the night time exceeds a rating of 65 dBC when measured at the point of reception.”

PART 4 – APPLICATION FOR EXEMPTION

401 Application to City Manager

Any person may make application to the City Manager to be granted an exemption from any of the provisions of this bylaw with respect to any source of sound for which they might be prosecuted, and the City Manager may refuse to grant any exemption, or may grant the exemption applied for, or any exemption of lesser effect. Any exemption granted shall specify the time period during which it is effective and may contain such terms and conditions as the City Manager sees fit.

402 Details of Exemption Application

The City Manager may give consent in writing to carry on any such works or events outside the prescribed limits and upon such terms as the City Manager determines. In any case where, because of an emergency or other unforeseen circumstance, an application for an exception cannot be submitted within the time limit prescribed in this subsection, the City Manager may waive that limitation.

Other than for emergency works the application mentioned in Subsection 401, shall be made in writing, and shall be submitted to the City Manager prior to the date of the proposed activity, and shall contain:

402.1 The applicant's information:

- (a) the name, address, and telephone number of the applicant;
- (b) the address of the construction site and development name;
- (c) the building permit number, if applicable;

402.2 a description of the source of sound for which an exemption is sought;

402.3 a statement of the particular provision or provisions of the bylaw from which exemption is sought;

402.4 the period of time, hours and days requested of duration not in excess of six months, for which the exemption is sought;

402.5 the reasons why the exemption should be granted;

402.6 regardless of the requested exemption, a statement of the steps, if any, planned or presently being taken to, mitigate the noise for which the exemption must be provided.

402.7 a non-refundable application fee of \$75.00.

403 Noise Control Officer

A copy of the application for exemption will be delivered to the Noise Control Officer, who will prepare a report to the City Manager, stating the merits of the application, recommendations as to terms and conditions which should be imposed upon the applicant if the exemption is granted, and the application for exemption will not be considered until a report has been prepared and considered.

404 Report

The City Clerk shall make a copy of the Noise Control Officer's report available to the applicant, once it has been filed for consideration by the City Manager.

405 Breach

Breach by the applicant of any of the terms or conditions of the exemption, shall render the exemption null and void. The permit shall be revoked by the Noise Control Officer and the Council so informed.

406 Community Notification

Where an exemption to the noise bylaw is granted the applicant will notify businesses and residents within 70 metres of the parcel property lines. The applicant will also send a copy of the community notification to the City of North Vancouver, the R.C.M.P., and the Vancouver Coast Health Authority. The notification will be in writing and forwarded at least 24 hours and no more than 7 days prior to the exempted noise. The notification shall include:

1. The applicant's information:
 - (a) the company and or construction company name, address, and telephone number;
 - (b) the project name and address of the construction site;
 - (c) the 24-hour monitored contact name and contact number.
2. The details of the exempted work:
 - (a) potential disruptions and other relevant activity including lights construction cranes, trucks, etc;
 - (b) the reasons why the noise exempted work is necessary.
3. Information about the exemption granted as well as any limitations or conditions imposed by the City regarding the exemption as well as a description of any steps taken or planned to minimize the noise nuisance.
4. Telephone numbers for the City of North Vancouver and the RCMP"

The City Manager will notify Council of all exemptions granted to the Noise Control Bylaw and any conditions imposed for the exemption."

PART 5 – ENFORCEMENT

501 Enforcement

Every person who violates a provision of this Bylaw, or consents, allows or permits an act or thing to be done in violation of a provision of this Bylaw, or who neglects to or refrains from doing anything required to be done by a provision of this Bylaw, is guilty of an offence and is liable to the penalties imposed under this Bylaw or any other applicable Bylaw of the City, and is guilty of a separate offence each day that a violation continues to exist.

Any person who contravenes any of the provisions of this Bylaw commits an offence punishable upon summary conviction and is liable to a fine of not more than \$10,000.00 or to imprisonment for not more than six months or to both. Each day that an offence continues shall constitute a separate offence.

Any person designated as a Bylaw Enforcement Officer pursuant to the Bylaw Notice Enforcement Bylaw, 2005, No. 7675 or is named as the enforcement officer pursuant to the Ticket Information Utilization Bylaw, 1992, No. 6300 is hereby authorized and empowered to enforce the provisions of this Bylaw or Bylaw Notice or Municipal Ticket Information or as otherwise provided by this or any other Bylaw of the City of North Vancouver.

The provisions of this Bylaw are severable. If, for any reason, any provision is held to be invalid by the decision of a court of competent jurisdiction, such a decision shall not affect the validity of the remaining provisions of this Bylaw.

PART 6 – REPEAL AND ENACTMENT

601 Repeal

Bylaw No. 5465, being “Noise Control Bylaw, 1983, No. 5465” and “Noise Control Bylaw, 1983, No. 5465, Amendment Bylaw, 1983, No. 5501”, and “Noise Control Bylaw, 1983, No. 5465, Amendment Bylaw, 1984, No. 5570, are hereby repealed.

702 Enactment

This bylaw is effective and in force and binding on all persons as from the day following the date of its adoption.

READ a first time by the Council on the 8th day of June, 1987

READ a second time by the Council on the 8th day of June, 1987.

READ a third time and passed by the Council on the 8th day of June, 1987.

RECONSIDERED and finally adopted by the Council, signed by the Mayor and City Clerk and sealed with the Corporate Seal on the 15th day of June, 1987.

"J.E. LOUCKS"

MAYOR

"B.A. HAWKSHAW"

CITY CLERK

CITY OF NORTH VANCOUVER

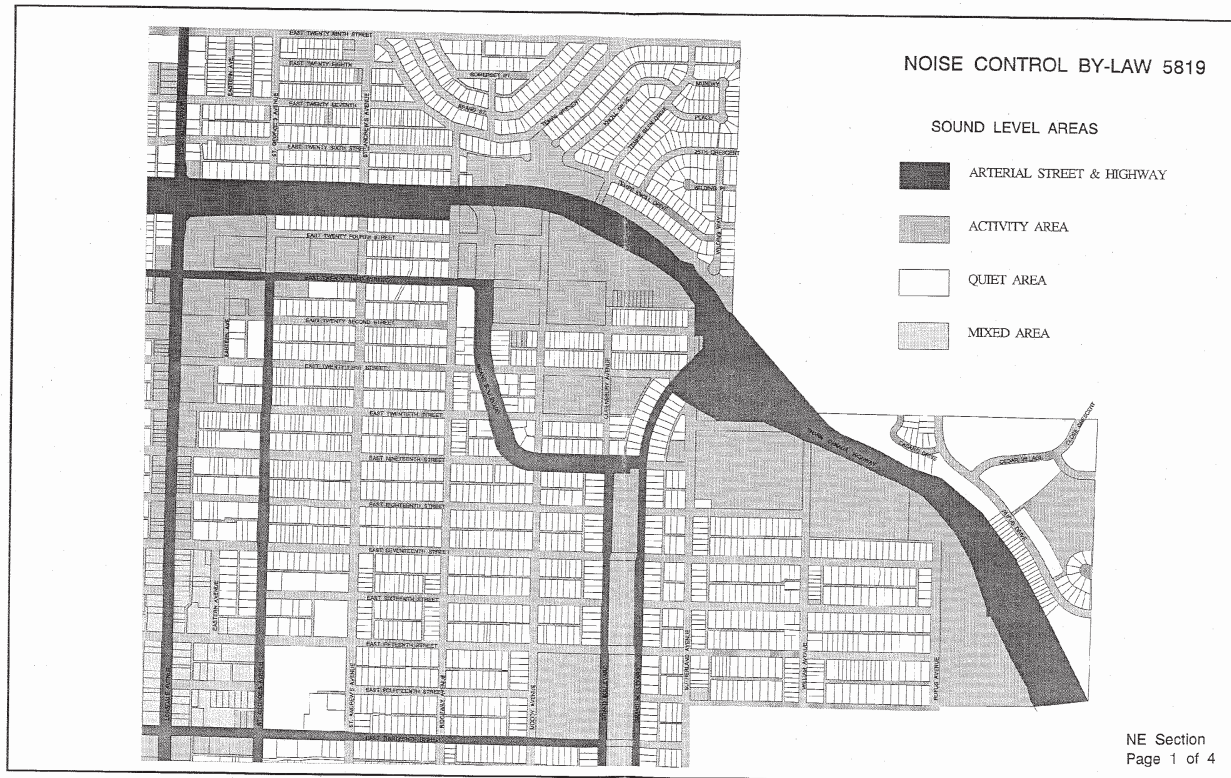
SCHEDULE 'A'

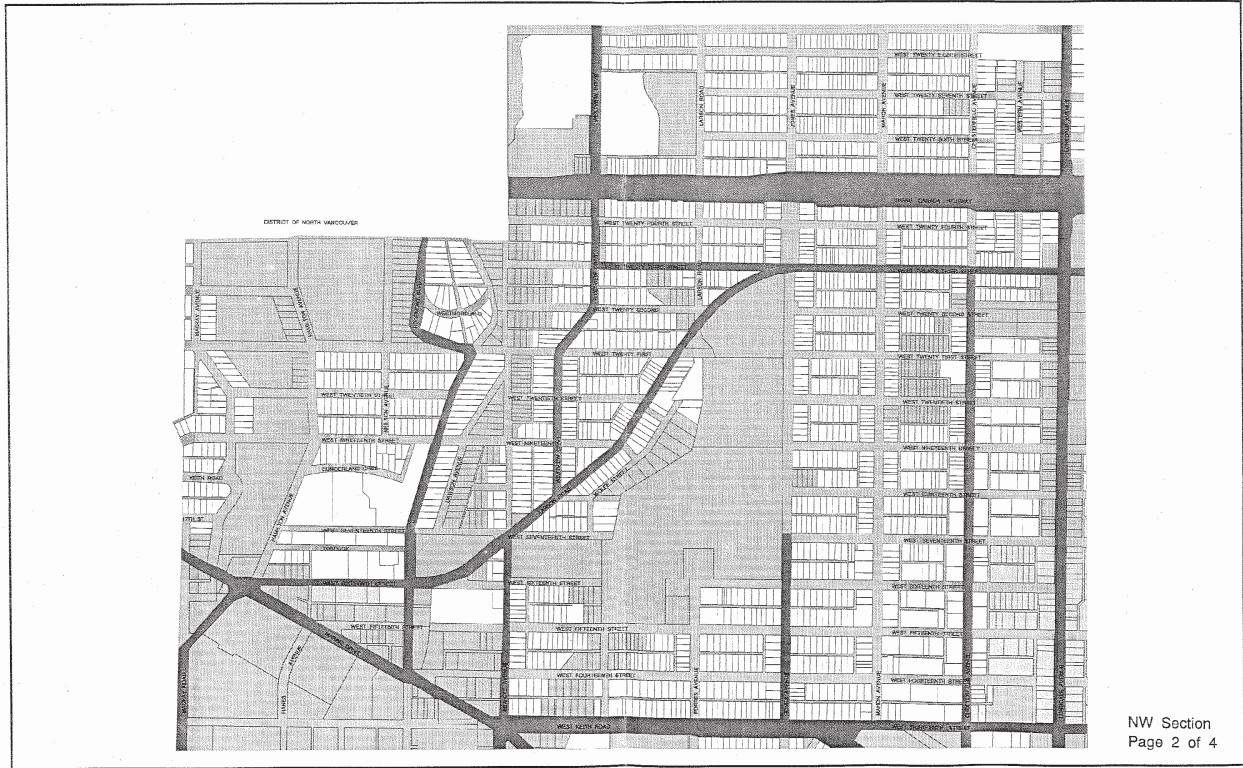
NOISE CONTROL BY-LAW NO. 5819 (1987)

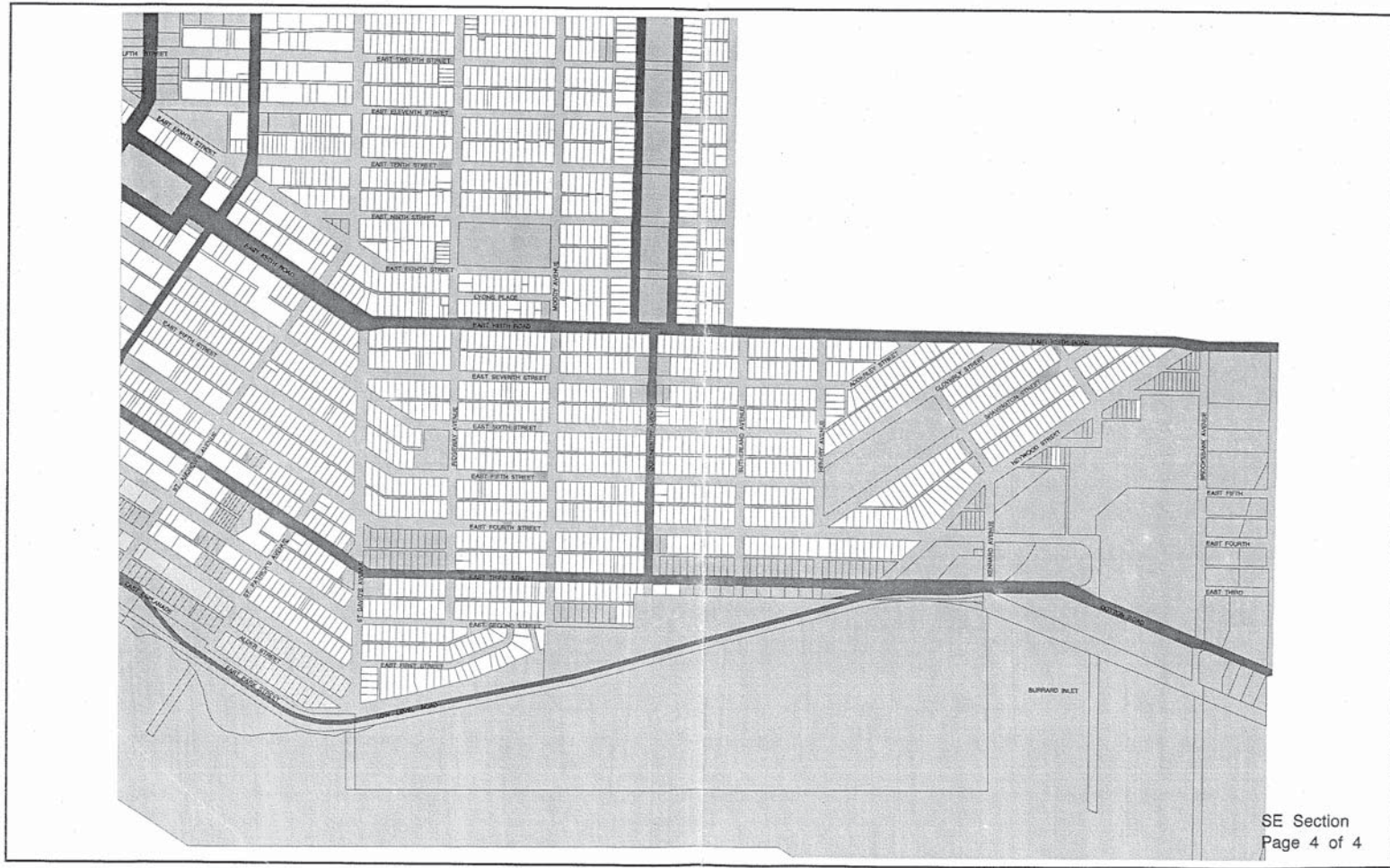
BY-LAW ADOPTED JUNE 15, 1987

SCALE : 1:7500
DATE : December 22, 1994

This map was produced on the City of North Vancouver's Geographic Information System on December 21, 1994. The original map, MA1-BASE-16, is archived with the City's Engineering Department. This map is available in colour and at larger scales by contacting Computer Services.







SCHEDULE "B"
NOISE CONTROL BYLAW

Schedule of Objectionable or Disturbing Sounds

1. The vocal sound made by an animal, bird or fowl, under the control of, or owned by a person, which is creating any kind of sound continually or sporadically for any period in excess of fifteen (15) minutes.
2. The sound made by a combustion engine that is operated without an effective exhaust muffling system in good working order, being in use whenever such engine is in operation.
3. The sound made by operating a vehicle in such a way that the tires squeal.
4. The sound made by a vehicle horn or other warning device used except under circumstances required or authorized by Section 309 of this bylaw.
5. The sound made by a vehicle, or a vehicle with a trailer, resulting in banging, clanking, squealing, or other like sound due to an improperly secured load, or improperly secured equipment, or due to inadequate maintenance.
6. The sound made through the operation of a "Jacobs or Jake" brake or other type of engine brake on a motor vehicle for any purpose other than as an emergency braking device for the safe operation of the motor vehicle.
7. The amplified sound of a radio, television, player or other sound playback device or amplification equipment, or the sound of a musical instrument, that emanates from a motor vehicle and can be heard at a distance of 5 metres (16.4 ft.) from the motor vehicle; and is continuously made for more than two (2) minutes.
8. The sound generated by construction activity or the activity of construction equipment, is **permitted** during the following times only:
 - (a) between the hours of 7:00 a.m. to 8:00 p.m., Monday through Friday;
 - (b) between the hours of 9:00 a.m. and 7:00 p.m. on Saturdays.

Construction activity is **prohibited** on Sundays and public holidays.

9. Shouting, the use of megaphones or voice amplification equipment, the making of any other noise, noisy conduct by any person in or at any street, wharf, dock, pier, or public place, is prohibited, save and except Peace Officers or Fire Fighters while in the conduct of their lawful duty.

10. The sound of a burglar alarm or security system that continues for more than 15 minutes.
11. The audible sound of a motor vehicle security system which is made either continuously, or intermittently, for a period exceeding one minute; or which produces a false alarm activating more than three times in a 24 hour period, but does not include the activation status signal given when arming or disarming the alarm. A vehicle which has a security system operating in contravention of these requirements shall, for the purposes of Section 813 of the Street and Traffic Bylaw, be deemed to be a vehicle unlawfully placed or maintained or permitted to remain upon a street.
12. The sound generated by Garden and Building Maintenance equipment is permitted during the following times only:
 - a) between the hours of 7:00am and 8:00pm Monday through Friday;
 - b) between the hours 9:00am and 7:00pm Saturdays, Sundays and public holidays.

BARKING DOG COMPLAINT FORM

To deal effectively with the barking dog complaints, The Corporation of the City of North Vancouver asks that the citizens assist by providing the information detailed below:

Instructions

1. When this form and the daily record are completed, mail them to:

Bylaw Officer
City of North Vancouver
147 14th Street East
North Vancouver, BC V7L 2N4
2. It is required to be submitted at the same time:
 - (a) the completion of this form by a member of each household disturbed by the barking dog; and
 - (b) a daily record (for seven consecutive days) of the times when the barking most disturbs the peace.
3. Each person who completes this form must:
 - (a) print their name and sign;
 - (b) be a resident of the neighbourhood;
 - (c) be disturbed by the barking;
 - (d) be over 16 years of age; and
 - (e) be willing to appear in Court as a witness.

Complaint Form:

1.	How Long has the barking been a disturbance?	1 month, 1 year, etc.
2.	What prior measures have you taken to correct the situation?	
3.	What is the frequency of the disturbance?	Every day, every night, most days, most nights
4.	What is the duration of the disturbance?	Number of hours each night
5.	What effect has this disturbance on you?	Disturbs your sleep, is harmful to your health, etc.
6.	Whom do you believe owns/controls the dog?	Name and address
Note:	Please attach daily record as per instruction #2(b)	

SUMMARY OF MAXIMUM PERMISSIBLE SOUND LEVELS

as provided in the
Noise Control Bylaw 5819
of the
City of North Vancouver

Bylaw Section	Maximum Sound Level
303	Quiet Area – night time 45 Quiet Area - daytime 55
304	Mixed Area – night time 50 Mixed Area – daytime 55
305	Activity Area – night time 55 Activity Area - daytime 60
306	Non-continuous Sound – night time 75 Non-continuous Sound - daytime 80
317	Commercial Premises – night time 65 C-weighted - daytime 70 C-weighted
307	Construction Noise Levels 85 Power Lawnmower, etc. – daytime 77
308	Vehicles on highways with speed limits: 50 m/h or less – under 2200 kg. 70 Licensed Net Weight - over 2200 kg. 75 Licensed Net Weight Over 50 km/h – under 2200 kg. 75 Licensed Net Weight - over 2200 kg. 85

Licensed Net Weight
Sound levels noted in the table are dB(A) **unless otherwise noted, and**
measured at the “point of reception”.
Night time – 2000 hours of one day to 0700 hours of the following day.
Day time - 0700 hours to 2000 hours of the same day.

For further information or clarification, you are required to refer to the bylaw.

SAMPLE NOTIFICATION LETTER

[company letterhead]

Date: [_____]

Notice to Residents and Business neighbouring the [*project name*]:

Regarding: Construction Noise beyond [_____]

We are the [*company*] working at the [*project name, project address*]. On [*date*], the City of North Vancouver granted [*company*] permission to:

- work [*details of exemption*].

As you may know this is [*later/earlier*] than normally permitted under the City of North Vancouver Noise Control By-law No. 5819. While we regret the need to impose noise created by our construction efforts on you at that time, this exception to the times is critical in allowing us to build this project.

This notice is intended to advise you that we will be working until [*time and date*].

We will make every effort to minimize the noise and should we have an opportunity to finish earlier, we will do so. We are taking the following steps to reduce the noise:

- [*Description of any steps taken or planned to minimize the noise nuisance*].

We apologize for any inconvenience this may cause and we thank you for your patience. If you have any questions or concerns about this construction project, please contact one of the following:

- [*Construction company 24-hour monitored contact phone number and name*].
- City of North Vancouver at 604.985.7761.
- Vancouver Coastal Health Authority at 604.983.6700
- The RCMP after hours at 904.985.1311.

Review of the City of North Vancouver Noise Control Bylaw 1987 No. 5819

1. Introduction

The City of North Vancouver has for many years contracted the Environmental Health Department of Vancouver Coastal Health Authority to provide technical assistance in operating the noise control program.

Following a resolution by Council requesting City Staff to review the Noise Control Bylaw, the Bylaw Manager has asked VCH for input into the Bylaw review. The resolution also asked for other noise mitigation strategies to be considered and referred to work being done in Toronto. Toronto Public Health suggested looking at a range of possible strategies, including choosing quieter technologies, using transportation plans, community plans and building codes in addition to noise bylaws to reduce noise.

The City of North Vancouver Noise Control Bylaw is similar to the other municipal noise control bylaws on the North Shore and other urban areas in BC. These bylaws in addition to having a general nuisance clause have specific noise zones with prescribed noise limits. The other urban municipalities away from the north shore tend to have a greater number of noise zone limits. Most rural municipalities have chosen to use the general nuisance clause rather than having noise zones with prescribed noise limits.

The bylaws for the City of Richmond and the City of Victoria also have adjustment for tonal and impulsive qualities of the sound, which tend to be more annoying than constant sound.

2. Discussion

a. General Noise Nuisance Clause

All noise bylaws in BC contain a general prohibition of noise nuisance. Generally the bylaws prohibit a person from making sound that “*disturbs or tends to disturb the peace, quiet, rest, enjoyment, comfort or convenience of the neighbourhood*” (See Appendix A for excerpts of various bylaws). This type of definition of noise is based on the common law definition of private nuisance. The Bylaw Manager has expressed concern that the general clause may give the impression to the public that any sound that a specific individual finds personally disturbing will be a breach of the bylaw and that this concept would be too broad for reasonable application.

Over time courts have established objective criteria to assess nuisance. Typically the factors taken into consideration are: the sound intensity and character, its duration, the time of day or night the sound occurs, the presence of aggravating characteristics, what measures could reduce or modify the sound, the characteristics of the neighbourhood, number of persons affected, social utility of the sound producing activity, and whether the best practical means of control are employed to mitigate the sound. Given the complexities, the courts tend to make decisions on a case by case basis with the general rule based on what would affect the

average reasonable person, and what action would be reasonable in the given circumstances to not cause excessive disturbance. The aim is to take out the subjectivity and balance the right of a land owner/occupier to use their land, and the neighbour land owner/occupier to enjoy their land.

In addition to the general clause, the City of North Vancouver has chosen to establish limits for different areas called a maximum permitted noise level. Previous staff at the City have suggested noise levels below this prescribed level are permitted and therefore not a breach of the bylaw. This has led to the custom and practice of the general clause not being used within the jurisdiction of the City of North Vancouver.

Contrasting with the District of West Vancouver Bylaw, that establishes both a general clause and a prescribed limit that if exceeded is a breach of the bylaw, leaving the possibility for a noise below this prescribed level to be found in breach of the general nuisance clause.

However the City of Richmond specifically states that the general clause does not apply should a noise reading be practical and the prescribed level is not breached. The City of Victoria gives a similar exception, but modified to say that noise audible at nighttime may be a breach of the general clause even if it meets the prescribed level.

Given the complex nature of noise nuisance and multiple factors taken into account in deciding a breach of the general clause. It will be a matter for the municipality to decide how it wants to administer this issue. This could range from removing the general clause, leaving it in place but using discretion as to when to use it, or making an assessment for all complaints that do not exceed the maximum noise level.

b. Sound Areas

The Noise Bylaw describes three types of sound area for the City. These areas are called "Quiet Area", "Mixed Area" and "Activity Area". Noise limits are established for continuous sound during the daytime and nighttime for each zone. Quiet Areas tend to be predominately residential areas and afforded the more stringent noise limits. Activity Areas tend to be public spaces, public building and industrial lands and are afforded the least protection for noise. Mixed Areas tend to be mixed residential/commercial buildings in the Lonsdale corridor/lower Lonsdale area. The map of sound areas was based on the land uses at the time the map was created. The map has not been updated for some time, and land uses in the City have changed as the City develops.

There have been 2 files in the last few years that highlight this issue. The former Lonsdale School site converted to residential development and the former detachment converted to mixed commercial and residential development. Complaints about noise from mechanical equipment located at neighbouring properties were investigated, but because the point of reception is still classified as "Activity Area", no breach of the bylaw was observed.

Any changes to the area category would need careful consideration; as an example a change to Mixed Area would be advantageous to the complainant, but could be more burdensome to the existing commercial/institutional property in the area. There is now more residential property being constructed in the lower Lonsdale/ Marine Drive/W 1st Street area which is an Activity Area. It may be beneficial to have a review of the noise map, and tie into the OCP review.

There has been some discussion on noise mapping. This is a tool that has been used in larger communities in Europe to help generate discussion on creating government action plans to reduce community noise. If in the future noise mapping became available in BC, then it may be useful to review the noise zone map against the noise map. There has been some discussion on looking to have a more detailed matrix of specified noise levels at the boundary of noise zone, similar to that seen in the City of Vancouver Bylaw. Again any changes to the area category would need careful consideration.

c. Quality adjustments

The quality of the sound can influence the human response to sound in addition to the intensity of the sound. Humans find tonal sound, impulsive sound and intermittent sound to be more annoying than constant sound. This means that quieter sounds may still be found to be annoying if it has some of these properties. There are assessment tools around the world that are used to adjust the measured sound levels to reflect these aggravating factors. There are two bylaws in BC, one for the City of Richmond and one for the City of Victoria that use adjustment factors for tonal and impulsive sounds.

d. Objectionable Sound

Many of the objectionable sounds listed in Schedule B relate to the maintenance and use of a vehicle or in vehicle entertainment. These clauses are similar to many found in other noise bylaws in BC. However, the challenge is that municipal staff does not have the authority to stop vehicles or obtain ID from drivers which means that these clauses are not used. The Police are named bylaw officers for the purposes of the Noise Bylaw, so it would be possible for a Police Officer to use this part of the bylaw; however, the Police have their own powers under the Motor Vehicle Act Regulations to cover the same issues. Therefore there may not be a need for duplication, unless there is an advantage to the Police to use the Municipal Bylaw. The last time that the City of Vancouver did a noise educational event with motorcyclists was over 20 years ago and my search of the newspaper indicated that the last educational event was solely done by the VPD.

e. Crowd source data

There are a number of noise apps available and becoming quite popular. There are also some websites operating where people can download their data to highlight noise or tranquil areas in a city which are gaining in popularity. The challenge with this technology is

the accuracy of the apps. Some have suggested that they are not accurate with as much as a 20 dB discrepancy compared to scientifically calibrated equipment; the other challenge is the way the data is collected. Extraneous noise could give a false reading, and sound varies with distance. So with no standardization of measurement, comparisons cannot be made. I would say that the use of crowd source data is not suitable for noise bylaw use.

3. Recommendations

- Consider joining with other municipal departments such as planning, building control, and engineering to review noise in the city and what collaborative work could be done to assess and reduce noise in the city.
- Consider what support from VCH healthy built environment team would be useful when considering noise in community plans.
- Consider reviewing the sound area map.
- Consider including an assessment of tonal and impulsive content of sound in any noise complaint assessment.
- Consider applicability of the bylaw to vehicle noise, or whether education and/or other traffic control measures would be appropriate.

Prepared by: John Pickles

Reviewed by: Jonathan Choi

Date: December 3, 2019

Appendix A: General Noise Nuisance

City of North Vancouver: Noise Control Bylaw 1987 No. 5819

302.1 A person shall not make, nor cause to be made, nor permit to be made by:

1. any other person, or by any animal, or by any bird or fowl, if any of the same are in the control of such first-mentioned person;
2. any vehicle, conveyance, vessel, machinery, equipment or device, if any of the same are in the control of such first-mentioned person;
3. an activity, if any of the same are in the control of such first-mentioned person;

a sound, which when received at a point of reception in the municipality, shall constitute a noise as defined or determined pursuant to the provisions of the bylaw;

201.26 "noise" includes:

1. any sound, continuous sound or non-continuous sound which disturbs or tends to disturb the peace, quiet, rest, enjoyment, comfort or convenience of the neighbourhood in which such sound is received, or, of any reasonable person in the vicinity of the source of such sound who receives such sound; or,
2. any sound, continuous sound or non-continuous sound, which exceeds a sound level permitted by this bylaw at the point of reception of such sound.
3. any sound, continuous sound or non-continuous sound listed in Schedule "B" attached hereto;

District of West Vancouver: Noise Control Bylaw No. 4404, 2005

5.1 No person shall make or cause, or permit to be made or caused, any noise or sound which: 5.1.1 disturbs or is liable to disturb the quiet, peace, rest, enjoyment, comfort, or convenience of individuals or the public; or 5.1.2 exceeds the Sound Levels prescribed in this Bylaw.

City of Vancouver: NOISE CONTROL BY-LAW NO. 6555

4. Notwithstanding any other provision of this By-law the following are declared by Council to be noises or sounds which are, in its opinion, objectionable or liable to disturb the quiet, peace, rest, enjoyment, comfort or convenience of individuals or the public and are hereby prohibited, and no person being the owner or occupant of any premises shall make, cause, allow, or permit:

(a) the noise resulting from a gathering of two or more persons at any time, where one or more human voice is raised beyond the level of ordinary conversation,

(b) the sound of a radio, television, player or other sound playback device, public address system, or any other music or voice amplification equipment, musical instrument, whether recorded or live, whether amplified or not, provided that the sound does not emanate from a commercial premises, or

(c) the noise resulting from construction except during the hours and days during which section 16 permits a person to carry on construction, which can easily be heard by an individual or member of the public who is not on the same premises, notwithstanding that such noise or sound might not constitute a breach of any other provision of this by-law.

City of Burnaby: Burnaby Noise or Sound Abatement Bylaw 1979 (2018)

3. No person shall, except as in this bylaw may be provided,

(a) make or cause any noise or sound in or on a highway or elsewhere in the Municipality which disturbs, or tends to disturb, the quiet, peace, rest, enjoyment, comfort, or convenience of the neighbourhood, or of persons in the vicinity;

(b) make or cause any noise or sound or continuous noise or continuous sound or non-continuous noise or non-continuous sound in the Municipality that exceeds the dBA's authorized by this bylaw.

City of Victoria: NOISE BYLAW BYLAW NO. 03-012

11 (1) Subject to the other provisions of this Bylaw,

(a) a person must not make or cause a noise or sound in a street, park, plaza or similar public place which disturbs or tends to disturb the quiet, peace rest, enjoyment, comfort or convenience of persons in the neighbourhood or vicinity;

(b) a person who is the owner or occupier of, or is in possession or control of, real property must not make, suffer, or permit any other person to make, a noise or sound, on that real property, which can be easily heard by a person not on the same premises and which disturbs or tends to disturb the quiet, peace rest, enjoyment, comfort or convenience of persons in the neighbourhood or vicinity.

(2) Subsection (1) does not apply to a person who makes, causes, or permits to be made or caused, a sound or noise in compliance with the provisions of sections 5 to 8 unless the noise or sound is clearly audible at a point of reception in a residential area between the hours of 10:00 p.m. one day and 7:00 a.m. the following day.

ESSENTIALS OF
CANADIAN LAW

THE LAW OF TORTS

FOURTH EDITION

PHILIP H. OSBORNE

Faculty of Law

The University of Manitoba



near the plaintiff's farm. The defendant knew that the loud noise would disrupt the breeding season of the plaintiff's extremely nervous and temperamental animals. The defendant argued that in normal circumstances the discharge of firearms is not an unreasonable interference with the enjoyment of land and the plaintiff's loss arose solely from the hypersensitivity of silver foxes in the breeding season. Nevertheless, the defendant was found liable in private nuisance. The defendant's knowledge of the plaintiff's sensitive land use, combined with the malicious nature of the defendant's conduct, made the interference unreasonable. One Canadian court has pushed this exception further and imposed liability in the absence of malice. The defendant was held liable for failing to take reasonable care by suspending the blasting of stumps on his land while the plaintiff's fur-bearing animals were breeding. The defendant, at no inconvenience to himself, could have suspended the blasting for a month and avoided causing damage to the plaintiff.⁷

2) Interference with Enjoyment and Comfort of Land

A landholder is required to be much more tolerant of occasional interference in her comfort and enjoyment of land. The courts take a fairly robust approach to the extent of give and take that is required, particularly in an urban environment. All citizens must tolerate a certain level of noise, odour, and pollution. In order to prove a private nuisance, the plaintiff must show an interference that in all the circumstances of the case is unreasonable to the ordinary person. No protection is given to fastidious or delicate sensibilities.⁸ The circumstances relevant to deciding if the interference is unreasonable include the character of the neighbourhood, the intensity of the interference, the duration of the interference, the time of day and the day of the week of the interference, the zoning designation of the area, the utility of the defendant's activity, the nature of the defendant's conduct, and the sensitivity of the plaintiff. None of these factors is conclusive but they do deserve some further comment.

a) The Character of the Neighbourhood

Nuisance is a relative concept dependent to a large extent on the kind of neighbourhood where the activity takes place. There is a famous distinction drawn in an old English case between Belgrave Square, a quiet residential area of London, and the industrial area of Bermondsey. The

7 *MacGibbon v. Robinson*, [1953] 2 D.L.R. 689 (B.C.C.A.).

8 *Walter v. Selfe* (1851), 4 De G. & Sm. 315, 64 E.R. 849 at 852.

Court observed that “what would be a nuisance in Belgrave Square would not necessarily be so in Bermondsey.”⁹ Every city has its Belgrave Squares and its Bermondseys and the noise and smells that are tolerable in an industrial and commercial area may be excessive in a residential neighbourhood. The standard of tolerance may also be different in a rural area compared with that of an urban environment. The smells of some agricultural operations that may be reasonable in a rural environment may be intolerable in an urban residential area, and a reasonable level of noise in the city may be too much for a rural area. Those who live in a remote cottage area may have a reasonable expectation of even greater peace and quiet.

b) The Intensity of the Interference

There is no liability for the occasional loud noise, the transient bad smell, the periodic barking of a dog, or the smoke from a barbecue. The interference must be of sufficient intensity to be intolerable to the ordinary Canadian citizen. The kinds of smells that amount to nuisances have, for example, been described as “nauseating,” sickening,” “very offensive,” and “absolutely horrible.”¹⁰ More scientific evidence can now be brought in respect of noise. The decibels may be counted and public health standards may be used as a guide to tolerable limits. Those limits are not, however, conclusive of the issue. In *Sutherland v. Canada (Attorney General)*¹¹ the trial judge held that aircraft noise arising from the operation of a new runway at Vancouver International Airport amounted to a private nuisance. The court held that consideration must be given not only to the scientific noise metrics evidence but also to the subjective evidence of the noise and its effect on the plaintiffs who lived below the flight path.¹²

c) The Duration of the Interference

Reasonable people are tolerant of quite a significant interference with their enjoyment of land if the interference is temporary and short-lived. The occasional loud party next door, the noise and dust from a construction site, and the repair of residential roads are normally in the realm of the tolerable. When the interference is persistent and long-term, the tolerable may become intolerable. Many of the cases where

9 *Sturges v. Bridgman* (1879), 11 Ch.D. 852 at 865.

10 See, for example, *Appleby v. Erie Tobacco Co.* (1910), 22 O.L.R. 533 (C.A.).

11 [2001] B.C.J. No. 1450 (S.C.), rev'd on other grounds [2002] B.C.J. No. 1479 (C.A.).

12 See also *Suzuki v. Munroe*, [2009] B.C.J. No. 2019 (S.C.) where considerable reliance was placed on the “decibel count” of a neighbour’s air-conditioning unit.

private nuisance has been established deal with long-lasting incompatible land uses.

d) The Time of Day and the Day of the Week

The time of day when the interference takes place is particularly relevant to the acceptable level of noise. In a residential area it is reasonable to expect less noise at night than during the day. Most people work during the day and sleep at night.¹³ Noise in the early hours of the morning leading to broken sleep patterns is a particular concern.¹⁴ Those who work nights are out of step with conventional patterns and they cannot demand the same degree of quiet for their sleep. The day of the week has also been regarded as a relevant factor. Courts have taken judicial notice of the fact that many people like to sleep late on weekends and early morning noise on those days, even the ringing of church bells,¹⁵ may be regarded as a nuisance.

e) Zoning Designation

The twentieth century witnessed a massive growth in the governmental control of land use by means of municipal zoning, building regulations, environmental legislation, and other land use and public health legislation and regulations. This has diminished the importance of private nuisance in adjusting and resolving land-use conflict. Canadian courts have not, however, recognized compliance with zoning bylaws or other rules or regulations controlling land use as a defence to an action in private nuisance. It is a factor in determining both the character of the neighbourhood and the standard of tolerable interference but it is not conclusive of the issue. This is a wise policy. Compliance with zoning regulations does not guarantee that the defendant's use of land is not an unreasonable interference with that of a neighbour.

13. See, for example, *Walker v. Pioneer Construction Co. (1967) Ltd.* (1975), 8 O.R. (2d) 35 (H.C.J.), where the noise from the defendant's asphalt plant was held to be a nuisance at night but not during the day.

14. See *Popoff v. Krafczyk*, [1990] B.C.J. No. 1935 (S.C.) where the squawking of the defendant's macaws daily between 5:00 a.m. and 6:00 a.m. was held to be a nuisance.

15. See the Australian decision in *Haddon v. Lynch*, [1911] V.L.R. 5 (S.C.), aff'd [1911] V.L.R. 230 (F.C.), where an injunction was awarded to restrain the ringing of church bells until after 9 a.m. on Sundays. See also *Laing v. St. Thomas Dragway*, [2005] O.J. No. 254 (S.C.J.) where an injunction was issued to prohibit motor vehicle racing before 1 p.m. on Sundays.

f) The Utility of the Defendant's Conduct

A defendant may not defend an action in private nuisance on the basis that the defendant's use of land is generally beneficial to the public. Nevertheless, the utility of the activity is likely to have some bearing on the standards of tolerance of reasonable persons and, where liability is imposed, it may have an influence on the ultimate remedy. Trains, planes, and automobiles, industrial and commercial activities, emergency vehicles, the construction and repair of infrastructure, and agricultural operations are all productive of some level of interference with the enjoyment of land. They are also indispensable activities in a modern society and courts are acutely aware of the need to avoid decisions that are disruptive of, or incompatible with, essential operations and beneficial societal activities. Courts have, for example, been particularly cautious in respect of agricultural operations such as hog farming and other animal husbandry that carry an unavoidable odour and industries upon which many persons depend for their livelihood. Conversely, a stricter view may be taken towards purely recreational and sporting activities with less vital social benefit. A court may, for example, be less favourably inclined to rock concerts, loud music in residential areas, all-night revelry, and the continual intrusion of golf balls from a neighbouring golf course.

g) The Nature of the Defendant's Conduct

The primary focus in a private nuisance action is the impact of the defendant's activities on the plaintiff's enjoyment of property. Nevertheless, the nature of the defendant's conduct is not ignored. Decision making in private nuisance is influenced to some degree by the comparative assessment of the reasonableness of the conduct of the parties. The courts are, for example, less likely to protect the land use of a defendant who acts unreasonably and is motivated by a desire to cause annoyance, discomfort, and inconvenience to the plaintiff than one that is conducted prudently for a laudable purpose. *Christie v. Davey*¹⁶ is an illustrative case. The plaintiff, a music teacher, lived in a semi-detached house next to the defendant. The defendant objected to the sound of the music coming from the plaintiff's premises. He protested by hammering and banging trays on the common wall between the two residences. This was done maliciously to annoy the plaintiff and interfere with his vocation. An injunction was issued to prohibit it. The judge observed that he might have taken a different view of the matter if both litigants were entirely innocent.

16 [1893] 1 Ch. 316.

11) THE SENSITIVITY OF THE PLAINTIFF

There is no liability if the plaintiff is abnormally sensitive to the defendant's land use. The standard is that of the reasonable and ordinary resident in the geographic area and the rule in *Robinson v. Kilvert*¹⁷ applies equally to interference with the enjoyment and comfort of land. No protection is given to abnormally light sleepers or those who suffer from allergies. There is also no protection available for abnormally sensitive commercial activities such as a special illuminated advertising sign that was adversely affected by flood lighting of the defendant's property.¹⁸ Once a nuisance is established, however, the defendant must take the plaintiff as he finds him and will probably be liable for the full extent of his loss.

3) Non-intrusive Nuisances

The most common form of private nuisance is one that emanates from the defendant's land, crosses the plaintiff's boundary, and intrudes onto the plaintiff's land, causing material damage or a loss of enjoyment or comfort to the plaintiff. Nuisance by noise, smoke, water, fumes, chemicals, and odour take this form. Not all nuisances are of this kind. An unreasonable interference with land may occur without any intrusion onto the plaintiff's land. The usual principles of private nuisance are applicable in these cases, but courts are more reluctant to intervene when there is no tangible or intangible invasion of the plaintiff's property.

There are few circumstances where physical damage to property can be inflicted without some intrusion. The best example is the decision in *Pugliese v. Canada (National Capital Commission)*.¹⁹ In that case, the defendant's construction of a sewer collector lowered the water table under the plaintiffs' land. This caused the plaintiffs' land to subside, which, in turn, resulted in damage to their houses. The defendant was held liable in private nuisance even though the damage was caused by the removal of water rather than the invasion of some substance onto the property. This case is consistent with the strong protection provided by private nuisance in respect of physical damage.

There is much greater reluctance to impose liability for non-intrusive conduct that interferes with the enjoyment and comfort of land. These cases pose a much greater threat to the defendant's freedom of land use. There is, for example, generally no liability for blocking the

¹⁷ Above note 5.

¹⁸ *Noyes v. Huron & Erie Mortgage Corp.*, [1932] O.R. 426 (H.C.J.).

¹⁹ (1977), 17 O.R. (2d) 129 (C.A.), var'd [1979] 2 S.C.R. 104.

Title: Noise Bylaws - Health evidence and potential noise mitigation strategies for mixed land use planning
Information Requestor(s): Dr. Mark Lysyshyn, Jonathan Choi, John Pickles, Ross Adamson
Request Date: Oct 7, 2019
Question from Requestor: To inform North Vancouver noise bylaw revisions, drawing from Toronto Public Health and international guidance and standards, what noise mitigation strategies may we consider in North Vancouver?
Methods: Background research was conducted into noise bylaw zones and noise mitigation strategies. We compared North Vancouver to other similar size and growing municipalities. In addition, City of North Vancouver suggested Victoria and Edmonton as forward thinking health-based city planning bylaws. We included NYC as a future state for a large international population. We also included Toronto as they had a lot of research done on noise.
Report Date: Oct 23, 2019
Prepared by: Sammie Hwang, Sabrina Sandhu, Linda Dix-Cooper
cc: Randy Ash, Regional Manager of Health Protection

Summary of key findings:

- 42 to 60dB have been associated with adverse human health effects, which is below City of North Vancouver’s current bylaw sound levels.
- Among six municipalities reviewed, North Vancouver and Victoria are the only bylaws that include definitions of sound zones (see definitions). -City of Vancouver has considered the impact of noise within higher density buildings, where commercial and residential mix, by implementing indoor noise level requirements for any device (e.g. radio, television, player), music amplified or not, bass, continuous and non-continuous sounds.
- There is a gap in all of the bylaws, including City of North Vancouver for **mixed use (residential commercial and residential industrial border areas)**.
- Timing for noise bylaws varies by location:
 - Day and night are defined as 7am-10pm consistently across most cities. Metropolitan Cities (Toronto and New York City), do not specify noise bylaw differences by day and night. City of Vancouver has different time periods than other major cities (7am-10pm daytime) according to their bylaw on noise (Oct 1, 2019 update to Noise Bylaw). (Note: On their website it still says: outside of downtown 7am-8pm; Downtown: 6am to midnight). Bylaw states that around event sites such as BC Place & Rogers it is 7am to 11pm.
- Noise mitigation strategies exist for built environment (new and existing) as well as commercial and industrial activities.

Background: Framework (Figure 1)

Detailed Results: Report includes the following:

Figure 1 – Framework for noise and health

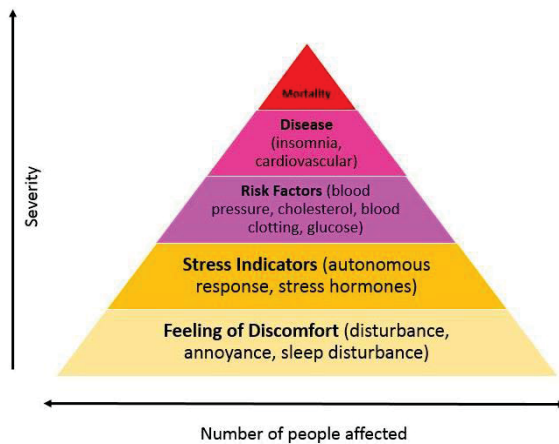
Table 1A & B – Summary of health-based evidence for sound level bylaws and standards

Table 2A & B – Noise mitigation strategies that North Vancouver may consider, for (A) new and (B) existing land uses and policies

Table 3 - Comparison chart of Noise bylaw limits by zones for various cities

Background: Here is a suggested framework for discussing environmental noise and noise pollution mitigation strategies (fig 1).

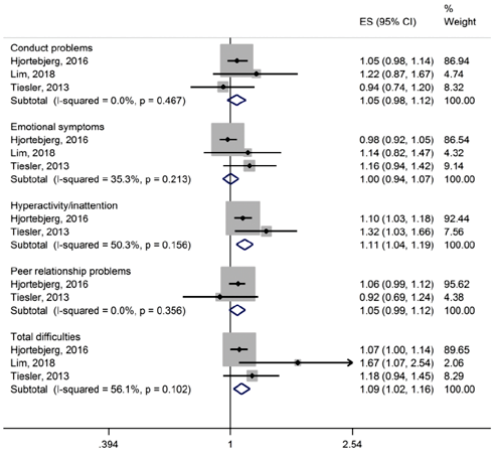
Figure 1: Noise is a biological stressor and a component of one’s physical environment (Excerpt from Toronto Public Health, 2017, p.8)



“Within an exposed population, the most severe health impacts from noise exposure will be experienced by a relatively small proportion of the population, but a larger number of people will experience feelings of discomfort or stress. Figure adapted from (Wolfgang Babisch, 2002) as cited in (W Babisch et al., 2010).

Tables:

Table 1A: Summary of health-based evidence for sound level bylaws and standards

Reference (Year)	Range in dB associated with adverse health effects	Health effects	Supporting information																																																															
<p>Systematic Review Paper by Toronto Public Health (May 29, 2017), "Health Impacts of Environmental Noise in Toronto" and</p> <p>"How loud is too loud? Health Impacts of Environmental Noise in Toronto" (April 2017) Toronto Public health technical report.</p>	<p>42 to 60dB * details below, by outcome</p>	<p>Table 1: Effects of noise on health and wellbeing with sufficient evidence (source: European Environment Agency, 2010)</p> <table border="1" data-bbox="506 451 1003 708"> <thead> <tr> <th>Effect</th> <th>Exposure Measure *</th> <th>Threshold ** (dBA)</th> <th>Effect type</th> </tr> </thead> <tbody> <tr> <td>Annoyance disturbance</td> <td>L_{den}</td> <td>42</td> <td>Chronic</td> </tr> <tr> <td>Self-reported sleep disturbance</td> <td>L_{night}</td> <td>42</td> <td>Chronic</td> </tr> <tr> <td>Learning, memory</td> <td>Leq</td> <td>50</td> <td>Acute, chronic</td> </tr> <tr> <td>Stress hormones</td> <td>L_{max, Leq}</td> <td>NA</td> <td>Acute, chronic</td> </tr> <tr> <td>Sleep</td> <td>L_{max, indoors}</td> <td>32</td> <td>Acute, chronic</td> </tr> <tr> <td>Reported awakening</td> <td>SEL_{indoors}</td> <td>53</td> <td>Acute</td> </tr> <tr> <td>Reported health</td> <td>L_{den}</td> <td>50</td> <td>Chronic</td> </tr> <tr> <td>Hypertension</td> <td>L_{den}</td> <td>50</td> <td>Chronic</td> </tr> <tr> <td>Ischaemic heart diseases</td> <td>L_{den}</td> <td>60</td> <td>Chronic</td> </tr> </tbody> </table> <p>Note: * L_{den} and L_{night} are defined as outside exposure levels. L_{max} may be either internal or external as indicated. ** Level above which health effects start to occur or start to rise above background. NA = not available.</p> <p>Reference: Table 1 above is an excerpt from Toronto Public Health, 2017, p. 13/14)</p>	Effect	Exposure Measure *	Threshold ** (dBA)	Effect type	Annoyance disturbance	L _{den}	42	Chronic	Self-reported sleep disturbance	L _{night}	42	Chronic	Learning, memory	Leq	50	Acute, chronic	Stress hormones	L _{max, Leq}	NA	Acute, chronic	Sleep	L _{max, indoors}	32	Acute, chronic	Reported awakening	SEL _{indoors}	53	Acute	Reported health	L _{den}	50	Chronic	Hypertension	L _{den}	50	Chronic	Ischaemic heart diseases	L _{den}	60	Chronic	<p>Outcomes identified in Lit Review by TOPH:</p> <ul style="list-style-type: none"> Cardiovascular Effects: myocardial infarction, hypertensive heart disease, ischemic heart disease, high blood pressure, cerebrovascular disease (stroke), coronary heart disease Cognitive Impacts: impairment (attention, memory adults, errors upon testing in children) Sleep Disturbance: increased arousals, changes to sleep structure Mental Health: annoyance, depression, quality of life Pulmonary Effects: chronic obstructive pulmonary disease, pneumonia Other Effects: diabetes, <u>behaviour in children</u> <p>Note: *underlined denotes key child development factors.</p> <p>Definitions: L_{den} vs. L_{dn} vs. Leq vs. SEL_{indoors} (e=evening (1900-2300), d=daytime, n=night; eq=equivalent continuous sound; SEL= total noise energy produced during an event during period of noisiness).</p> <p>Note (Toronto PH document, page 4): "The study estimated that nearly 90% of the residential population is exposed to average daytime levels above 55dBA. Nighttime noise levels are lower with about 40 percent of the residential population exposed to average nighttime noise levels above 55 dBA. The study also found that dissemination areas in the lowest income group are nearly 11 times more likely to have 50 percent of their residents exposed to nighttime noise above 55 dBA than residents in dissemination areas in the highest income group. ... Almost 60 percent of the noise in Toronto can be attributed to traffic noise "</p> <p>https://www.toronto.ca/legdocs/mmis/2017/hl/bgrd/backgroundfile-104524.pdf</p>																							
Effect	Exposure Measure *	Threshold ** (dBA)	Effect type																																																															
Annoyance disturbance	L _{den}	42	Chronic																																																															
Self-reported sleep disturbance	L _{night}	42	Chronic																																																															
Learning, memory	Leq	50	Acute, chronic																																																															
Stress hormones	L _{max, Leq}	NA	Acute, chronic																																																															
Sleep	L _{max, indoors}	32	Acute, chronic																																																															
Reported awakening	SEL _{indoors}	53	Acute																																																															
Reported health	L _{den}	50	Chronic																																																															
Hypertension	L _{den}	50	Chronic																																																															
Ischaemic heart diseases	L _{den}	60	Chronic																																																															
<p>Schubert, 2019</p> <p>Review article of 3 studies in a meta-analysis</p>	<p>RR for every 10d L_{DEN}B increase in noise exposure</p>	<p>Odds ratios for children developmental impairments associated with 10d L_{DEN}B increases of noise exposure:</p>  <table border="1" data-bbox="506 844 1003 1295"> <thead> <tr> <th>Category</th> <th>Study</th> <th>ES (95% CI)</th> <th>% Weight</th> </tr> </thead> <tbody> <tr> <td rowspan="4">Conduct problems</td> <td>Horteberg, 2016</td> <td>1.05 (0.98, 1.14)</td> <td>86.94</td> </tr> <tr> <td>Lim, 2018</td> <td>1.22 (0.87, 1.67)</td> <td>4.74</td> </tr> <tr> <td>Tiesler, 2013</td> <td>0.94 (0.74, 1.20)</td> <td>8.32</td> </tr> <tr> <td>Subtotal (I-squared = 0.0%, p = 0.467)</td> <td>1.05 (0.98, 1.12)</td> <td>100.00</td> </tr> <tr> <td rowspan="4">Emotional symptoms</td> <td>Horteberg, 2016</td> <td>0.98 (0.92, 1.05)</td> <td>86.54</td> </tr> <tr> <td>Lim, 2018</td> <td>1.14 (0.82, 1.47)</td> <td>4.32</td> </tr> <tr> <td>Tiesler, 2013</td> <td>1.16 (0.94, 1.42)</td> <td>9.14</td> </tr> <tr> <td>Subtotal (I-squared = 35.3%, p = 0.213)</td> <td>1.00 (0.94, 1.07)</td> <td>100.00</td> </tr> <tr> <td rowspan="3">Hyperactivity/inattention</td> <td>Horteberg, 2016</td> <td>1.10 (1.03, 1.18)</td> <td>92.44</td> </tr> <tr> <td>Tiesler, 2013</td> <td>1.32 (1.03, 1.66)</td> <td>7.56</td> </tr> <tr> <td>Subtotal (I-squared = 50.3%, p = 0.156)</td> <td>1.11 (1.04, 1.19)</td> <td>100.00</td> </tr> <tr> <td rowspan="3">Peer relationship problems</td> <td>Horteberg, 2016</td> <td>1.06 (0.99, 1.12)</td> <td>95.62</td> </tr> <tr> <td>Tiesler, 2013</td> <td>0.92 (0.69, 1.24)</td> <td>4.38</td> </tr> <tr> <td>Subtotal (I-squared = 0.0%, p = 0.356)</td> <td>1.05 (0.99, 1.12)</td> <td>100.00</td> </tr> <tr> <td rowspan="4">Total difficulties</td> <td>Horteberg, 2016</td> <td>1.07 (1.00, 1.14)</td> <td>89.65</td> </tr> <tr> <td>Lim, 2018</td> <td>1.67 (1.07, 2.54)</td> <td>2.06</td> </tr> <tr> <td>Tiesler, 2013</td> <td>1.18 (0.94, 1.45)</td> <td>8.29</td> </tr> <tr> <td>Subtotal (I-squared = 56.1%, p = 0.102)</td> <td>1.09 (1.02, 1.16)</td> <td>100.00</td> </tr> </tbody> </table>	Category	Study	ES (95% CI)	% Weight	Conduct problems	Horteberg, 2016	1.05 (0.98, 1.14)	86.94	Lim, 2018	1.22 (0.87, 1.67)	4.74	Tiesler, 2013	0.94 (0.74, 1.20)	8.32	Subtotal (I-squared = 0.0%, p = 0.467)	1.05 (0.98, 1.12)	100.00	Emotional symptoms	Horteberg, 2016	0.98 (0.92, 1.05)	86.54	Lim, 2018	1.14 (0.82, 1.47)	4.32	Tiesler, 2013	1.16 (0.94, 1.42)	9.14	Subtotal (I-squared = 35.3%, p = 0.213)	1.00 (0.94, 1.07)	100.00	Hyperactivity/inattention	Horteberg, 2016	1.10 (1.03, 1.18)	92.44	Tiesler, 2013	1.32 (1.03, 1.66)	7.56	Subtotal (I-squared = 50.3%, p = 0.156)	1.11 (1.04, 1.19)	100.00	Peer relationship problems	Horteberg, 2016	1.06 (0.99, 1.12)	95.62	Tiesler, 2013	0.92 (0.69, 1.24)	4.38	Subtotal (I-squared = 0.0%, p = 0.356)	1.05 (0.99, 1.12)	100.00	Total difficulties	Horteberg, 2016	1.07 (1.00, 1.14)	89.65	Lim, 2018	1.67 (1.07, 2.54)	2.06	Tiesler, 2013	1.18 (0.94, 1.45)	8.29	Subtotal (I-squared = 56.1%, p = 0.102)	1.09 (1.02, 1.16)	100.00	<p>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6765874/pdf/ijerph-16-03336.pdf</p>
Category	Study	ES (95% CI)	% Weight																																																															
Conduct problems	Horteberg, 2016	1.05 (0.98, 1.14)	86.94																																																															
	Lim, 2018	1.22 (0.87, 1.67)	4.74																																																															
	Tiesler, 2013	0.94 (0.74, 1.20)	8.32																																																															
	Subtotal (I-squared = 0.0%, p = 0.467)	1.05 (0.98, 1.12)	100.00																																																															
Emotional symptoms	Horteberg, 2016	0.98 (0.92, 1.05)	86.54																																																															
	Lim, 2018	1.14 (0.82, 1.47)	4.32																																																															
	Tiesler, 2013	1.16 (0.94, 1.42)	9.14																																																															
	Subtotal (I-squared = 35.3%, p = 0.213)	1.00 (0.94, 1.07)	100.00																																																															
Hyperactivity/inattention	Horteberg, 2016	1.10 (1.03, 1.18)	92.44																																																															
	Tiesler, 2013	1.32 (1.03, 1.66)	7.56																																																															
	Subtotal (I-squared = 50.3%, p = 0.156)	1.11 (1.04, 1.19)	100.00																																																															
Peer relationship problems	Horteberg, 2016	1.06 (0.99, 1.12)	95.62																																																															
	Tiesler, 2013	0.92 (0.69, 1.24)	4.38																																																															
	Subtotal (I-squared = 0.0%, p = 0.356)	1.05 (0.99, 1.12)	100.00																																																															
Total difficulties	Horteberg, 2016	1.07 (1.00, 1.14)	89.65																																																															
	Lim, 2018	1.67 (1.07, 2.54)	2.06																																																															
	Tiesler, 2013	1.18 (0.94, 1.45)	8.29																																																															
	Subtotal (I-squared = 56.1%, p = 0.102)	1.09 (1.02, 1.16)	100.00																																																															

Select additional health outcome studies published after the Toronto Public Health, identified by LDC in a pubmed literature review limited to 2017-2019 suggest linkages between environmental noise (measured or modelled) from traffic (or occupation*) among:

- Seniors: Dementia & mild cognitive impairment with 10 A-weighted decibel [dB(A)] increase in LDEN (Tzivian, 2016), Stroke incidence (WHO, 2018)
- Adults: Obesity (RR = 1.25, 95% CI: 1.04; 1.51, per 10 dB in 5-year mean) & adiposity markers (Foraster, 2018), metabolic disorders like diabetes (Klompaker, 2019), cholesterol, attention performance impaired >70dB traffic noise compared to 50 or 60dB (Schlittmeier, 2015); Lifetime noise exp associated with enhanced (cortical & subcortical) fMRI response (Dewey, 2019); Wind turbine noise associated with sleep meds & antidepressants (Poulsen, 2019).
- Adolescents: In loud urban US areas adolescents report later bed times to adjust to noise (Rudolph, 2019).
- Children: Overweight at 7 years (Schultz Christensen, 2016); Blood pressure (Dzhambov, 2017; Review article) Not linked to BP in (Warembourg 2019)
- Infants: *Low birthweight & Small for Gestational Age(GA) at birth in Finland among pregnant women occupationally exposed to noise ~>85dB fulltime (Selander, 2019)
- Healthcare-related: psychotropic (anxiolytic) drug use and reported noise annoyance (OR = 1.41; 95% CI: 1.02–1.95) in Finland >60dB (Okokon, 2018). Also: (Klompaker, 2019)
- Traffic noise exposure is experienced by the population with inequity (SES & ethnic differences (in London: Tonne, 2018; in USA: Casey, 2017) & Quality of sleep in the first and last hours of sleep are most crucial to feeling well the next day (Roosli, 2019).

*Note: Noise effect modification reported on air pollution association with cognitive performance impairment (Tzivian, 2017). Above epidemiological studies have their limitations: Studies tend to model outdoor noise exposure using land use spatial regression proxy; They tend to adjust for air pollution & other stressors. Full references available upon request. This list is incomplete. Refer to WHO, 2018 Health Evidence Review for additions to Toronto review. *Suggest considering hiring a RA for a full review of above noise epidemiological studies, including a table summarizing the population and study methods such as noise measurement and adjustment for traffic air pollution.*

Table 1B: Summary of above Health-based Noise Guidelines:

Reference (Year)	Target noise guideline	Supporting information
World Health Organization (2018) Environmental Noise Guidelines for the European Region	53dB/Lden average <u>produced by</u> road traffic 45dB/Lnight average <u>produced by</u> road traffic at night	Above this is associated with adverse health effects. Above this is associated with adverse effects on sleep.
World Health Organization guidelines (2009)	55dBA (Leq 16 hours) average outdoor levels through the day and evening. 40dBA (Leq 8 hours) average outdoors night. 30dBA (Leq 8 hours) average indoor night.	Note: Given that 40 dBA is often difficult to achieve in urban centres, the WHO also set an interim average nighttime limit of 55 dBA.
Ontario Ministry of Environment and Climate Change road-related noise 1 hour averages thresholds	For sensitive land uses such as residential uses, mitigation measures are required if average outdoor levels at the center of a window or door opening exceed as follows: 55dBA average during the day (0700 to 2300) 50dBA average during the night (2300-0700).	<i>Referenced in:</i> "How loud is too loud? Health Impacts of Environmental Noise in Toronto" (April 2017) Toronto Public health technical report. https://www.toronto.ca/leedocs/mmis/2017/hl/bgrd/backgroundfile-104524.pdf

Table 2A & B: Noise mitigation strategies that North Vancouver may consider, for (A) new and (B) existing land uses and policies

(A)

New building developments / land use planning	Background **All in accordance with building codes	Suggested interventions
Distance	<ul style="list-style-type: none"> Examples of local noise sources: major roads/truck routes, loading areas, construction sites, airports/flight paths, railyards, ports 	<ul style="list-style-type: none"> Maximize the distance between local noise sources and residences and vulnerable populations (e.g. schools, hospitals, childcares, residential cares). Set adequate (achievable) setback requirements.
Design	<ul style="list-style-type: none"> Recommend referring to City of Vancouver Noise Control Manual 	<ul style="list-style-type: none"> Design layouts and orientations to keep sleeping areas away from noise sources (e.g. orienting windows away from local noise sources or adding wing walls)
Materials	<ul style="list-style-type: none"> Recommend referring to City of Vancouver Noise Control Manual 	<ul style="list-style-type: none"> Install noise barriers and other noise shields to reduce noise exposure. Consider sound insulated windows, window glazing, and façade insulation. Enclose or use silencer/muffler for noise sources. Improvements in paving materials and tire composition (Ref: Toronto) Noise cancelling technologies to reduce noise transmission into vehicles and buildings

(B)

Existing infrastructure / activities	Background	Themes	Suggested interventions
Roadway	<ul style="list-style-type: none"> In general, vehicle noise increases with speed (this association is stronger for cars than for buses/heavy duty vehicles). Traffic calming is mainly used to promote road safety, but it can reduce noise when the traffic has few or no heavy duty vehicles. Speed limit reduction from 50 km/h to 30 km/h not only reduces noise levels by half (Ref: Toronto), it also reduces the amount of severe collisions leading to fewer injuries and deaths. Pedestrians' chances of surviving a crash at 30 km/h are much higher (90%) than if they are hit at 50 km/h (30%). 	<i>Traffic calming</i> (speed reduction to 30 km/h) (NCCHPP Urban Traffic Calming and Environmental Noise NCCHPP A 30-km/h Speed Limit on Local Streets)	<ul style="list-style-type: none"> Point location interventions that reduce both driving and speed variations (e.g. more roundabouts, speed bumps) Area-wide interventions that reduces traffic volume while encouraging low, constant speeds Reduce speed limits from 50 km/h to 30 km/h Street design that favours non-automobile uses to reduce traffic volume (i.e. make it more convenient and safe for modes of active transportation) Redirect traffic to main road networks Note: Shifting noise to the arteries/highways may increase risk of health inequalities as many people with less favourable socioeconomic circumstances tend to live closer to these roads
	<ul style="list-style-type: none"> Restricting cars from certain areas and/or times of the day can reduce the amount of noise from traffic. General air pollution will reduce during/in car-free times/zones (e.g. 40% reduction of NO₂ levels on car free day in France). 	<i>Traffic Restriction</i> (car free zones)	<ul style="list-style-type: none"> Restrict cars around vulnerable populations (e.g. schools, hospitals, childcares, residential cares) Note: For areas like schools, can also relieve congestion from parents drop off and pick up and promote more active modes of travel / physical activity <ul style="list-style-type: none"> Restrict car access in busy downtown / city centre areas (e.g. Lower Lonsdale) except electric vehicles, public transit, emergency vehicles, etc. Congestion charges for gas/diesel vehicles in busy areas during peak hours
Commercial / Business Operations	<ul style="list-style-type: none"> Targets motorists who are operating vehicles without mufflers or who have modified their vehicles to make more noise 	<i>Time limitation of operations</i> associated with noise	<ul style="list-style-type: none"> Stricter criteria for applications for noise bylaw exemptions Set time limits for music from bars/restaurants, A/C and circulation devices, garbage/refuse collection vehicles
Technology	<ul style="list-style-type: none"> Fully electrified fleet will be 3-4 dB more silent compared to the current fleet, especially for speeds up to 20 km/h. Fully electric vehicles are 1-2 dB more silent than hybrid vehicles. The # of people by traffic noise will be reduced by 30% when there are enough electric cars to perceive this noise reduction. At speeds over 50 km/h, electric and hybrid cars are not quieter than conventional cars – tire-road noise increases with speed and becomes the dominant noise source. 	<i>Enforcement of excessive noise</i> from motorists <i>Promotion of electric vehicles</i> (study from RIVM Netherlands)	<ul style="list-style-type: none"> Allow enforcement entities to firmly enforce fees/fines and/or increase fees/fines Audio equivalent of red-light cameras (used in Edmonton, Abu Dhabi) to measure noisy motorists Actions listed in CNV's Electric Vehicle Strategy Electrification of passenger and transit vehicles
		<i>Devices or equipment</i>	<ul style="list-style-type: none"> Specify limits for amplified sound / device (Ref: NYC) Consumer education – label products with a noise rating (dB) (e.g. garden equipment) Require equipment performance standards, by dB (e.g. for construction)

Table 3: Comparison chart of Noise bylaw limits by zones for various cities

Sound Level Area / Zone	Zone Description	Bylaws, by location									
		City of Vancouver Bylaw No. 6555 (consolidated Oct 1, 2019)		Toronto Municipal Code Chapter 591, Noise 2019-09-30	City of North Vancouver Noise Control Bylaw, 1987, No. 5819 (consolidated Jan 24, 2011)		City of Victoria Noise Bylaw No. 03-012 (consolidated Feb 1, 2015)		City of Edmonton Community Standards Bylaw (consolidated Jun 4, 2019)		New York City Local Laws of the City of New York, 2005, No. 113
		<i>Day</i> 7am-10pm weekday, Sat. & 10am-10pm Sun./holiday BC Place, Rogers, civic plaza in the event zone 7am-11pm	<i>Night</i>		<i>Day</i> 7am-10pm same day	<i>Night</i> 10pm-7am following day	<i>Day:</i> 7am-10pm weekday or Sat. 10am-10pm Sun./holiday	<i>Night</i> any time not included within the definition of daytime under this Bylaw	<i>Day</i> 7am-10pm	<i>Night</i> 10pm-7am	
Quiet Area	CNV any area of the municipality where the absence of noise is of particular importance to persons in that area at any time, and includes any area within the municipality shown on Schedule "A" attached hereto CoVic means those areas so described in this Bylaw and so indicated on the Noise District Map set out in Schedule A CoV any portion of the City not defined as an activity zone, intermediate zone or event zone	55	45		55	45	55	45			
Residential									65 fr/7am-10pm Prohibited: >65 fr/7am-10pm The following is exempt: 70 in 2 hr in 1 day 75 in 1 hr in 1 day 80 in 30 min in 1 day 85 in 15 min in 1	50 fr/ before 7am or after 10pm	

									day		
Non-residential									75 fr/7am-10 pm 80 in 2 hr in 1 day 85 in 1 hr in 1 day	60 fr/ before 7am or after 10pm	
Mixed Area (adjacent residential-commercial; same building or shared wall or party wall or wall that is flush to a wall of a commercial premise)	CNV any area of the municipality where the absence of noise is of particular importance to persons in that area at any time, and includes any area within the municipality shown on Schedule "A" attached hereto. Any residential uses located in a mixed area are deemed to be in a quiet area for the purpose of determining acceptable sound levels from non-commercial and non-industrial uses	Indoor measured in center of closest residence room: 55 dBC for 3+ min or commercial 3+ dB above background noise for 3+ min or Day 50 for 3 min Night 45 for 3 min			55	50					
Activity Area	CNV any area of the municipality not designated as either a mixed area or as a quiet area, except any residential uses located in conjunction with commercial or industrial uses located on the same premises are deemed to be in a quiet area for the purposes of determining acceptable sound levels from non-commercial and nonindustrial uses. CoVic means those areas so described in this Bylaw and so indicated on the Noise District Map set out in Schedule A	70 measured at pnt of reception or 6.1 metres (whichever is greater)	65 measured at pnt of reception or 6.1 metres (whichever is greater) Rogers Arena 82 dBC for 15 min		60	55	70	70			
Non-Continuous		75	70		80	75					
Intermediate		70	65				60	55			
Harbor Intermediate	CoVic means those areas so described in this Bylaw and so indicated on the Noise						60	55			

	District Map set out in Schedule A										
Commercial		70 dBC	65 dBC		70 dBC	65 dBC	70 dBC	65 dBC			
Amplified Sound indoors		Any live entertainment fr/restaurants – Class 1 or 2 made after 1am and before 9am is not permitted		45 for 10 min or 60dBC fr/11pm-7am or 50 or 65dBC fr/7am-11pm							
Music fr/ Bars & restaurants		80 dBC in Schedule F or 75 dBC in Schedule F for 1 min at 3 metres from the wall and 1.2 metres from the ground and 3+ above background noise for 1 min at 3 metres from the wall and 1.2 metres from the ground After 9am and before 1 am, Restaurants Class 1 or 2 90 for 3 min measured at 2 metres and height of 1.2 metres above the floor									42 fr/nearby residential AND 7 over ambient noise level as measured from street or right of way 15 ft fr/source b/t 10pm-7am Bass sounds: may not exceed 6 dBC above ambient sound if it is > 62 dBC
A/C & Circulation Devices				50 for both A/C & stationary source, exempt if a provincial environmental compliance approval is complaint							1 device: <42 as measured 3 ft fr/any opening Multiple devices: cumulative noise of 45 or less
Construction and Power Gardening Equipment Sound		Chainsaw 87 Power Equipment 77 at 50 ft (only daytime use) Leaf Blower Win 50 metres of residential 8am-6pm weekday or 9am-5pm Sat Construction General 7:30am-8pm weekday no holiday; 10am-8pm Sat Street Construction 7am-8pm weekday or Sat; 10am-8pm Sun/holiday		Construction Exemptions are made for the following w/approval from Executive Director: A noise mitigation plan and A statement certified by a professional engineer or acoustical consultant for any sounds that are not technically or operationally feasible to control Prohibit noise from 7pm-7am, except until 9am on Sat. Prohibit any noise on Sun./holidays Power devices Prohibit use fr/power device 7pm-7am, until 9am weekend/holidays (doesn't apply to public places or golf courses???) All Power Equipment 85 at 20m fr/source	85 7am-9am	77	Power equipment 8am-8pm 75 at the point of reception or 50 ft or 15.2 m Leaf blower 65 at pnt of reception or 15.2m (9am-8pm weekday) or (9am-5pm weekend/holiday) Chainsaws 85 at pnt of reception or 15.2m (8am-8pm weekday or 9am-5pm weekend/holiday) Construction 85 at pnt of reception or 15.2m (7am-7pm weekday or 10am-7pm Sat, only no holiday)	Prohibited: Before 7am or after 9pm M-Sat Before 9am or after 7pm Sun, holidays	Construction: all contractors must submit a noise mitigation plan prior to start of work; each site location must have the noise mitigation plan; if location is near a sensitive location, additional steps must be taken 7am-6pm weekdays and 10am-4 pm Sat/Sun with single family dwellings or 300+ ft from religious institutions Construction is permitted fr/ 7am-6pm The following is prohibited: -noise levels 10+ measured at 15 ft fr/ property line -impulsive sounds (short abrupt sounds)		
Loading & Unloading				Prohibited fr/ 11pm-7am, except until 9am weekends/holidays							
Garbage Truck/Refuse Collection Vehicles		Outside Downtown Area 7am-8pm weekday 10am-8pm weekend/holiday Inside Downtown Area 6am-12am weekday 10am-12am weekend/holiday					Exempt from garbage collection service (i) b/t 6am- 8pm within an Activity District; (ii) b/t 6:30am-8pm on a weekday; (iii) b/t 10am- 8pm on a Saturday,	Prohibited before 7am or after 10pm	80 measured at 35 ft+ fr/compacting unit in activity AND 80 fr/11pm-7am win 50 ft of property line when measured at 35ft+ fr/vehicle when in use		

							Sunday or holiday;					No jingles/music while stationary, only during movement.
Food Vending Vehicles												
Vehicles					Speeds < 50 km/hr	Speeds > 50 km/hr						
Weight: 2200 kg +					75	85						
Other vehicles					70	75						
Motor vehicles/motorcycles				Motorcycles 92 fr/ exhaust outlet as measured at 50 cm fr/ an idle engine All Vehicles -Prohibit noise from pnt of reception fr/9pm-7am, except until 9am weekends/holidays. -No honking, revving of engines, squealing tires, banging or clanking				Motorcycles When engine is idling: 92 at 50 cm fr/exhaust outlet When engine is not idling: 96 at 50 cm fr/exhaust outlet			-no honking; no excessive sounds where speed limit is < 35 mph -Excessive sounds: 150ft+ fr/vehicles <10,000lb (cars) 200ft+ fr/vehicles >10,000lb (trucks) 200ft fr/motorcycle	
Animal Sounds		No person being the owner or occupant of any premises shall cause, allow, or permit the cry of an animal or bird which can easily be heard by a person not on the same premises and which disturbs or tends to disturb unreasonably the quiet, peace, rest, enjoyment, comfort or convenience of that person		No person shall cause or permit persistent noise, including barking, calling or whining or other similar persistent noise, to be made by any animal kept or used for any purpose								7am-10pm for continuous period of 10+ min 10pm-7am for continuous period of 5+ min

All sound levels are measured in dBA unless otherwise specified.

The following zones overlap in City of Vancouver:

ZONES	QUIET		ACTIVITY/EVENT		INTERMEDIATE	
	Day	Night	Day	Night	Day	Night
QUIET	55	45	60	55	60	55
ACTIVITY/EVENT	60	55	70	65	70	65
INTERMEDIATE	60	50	70	65	70	65

City of Vancouver Noise Control By-law No. 6555. Accessed here: <https://bylaws.vancouver.ca/6555c.PDF>

City of Victoria has the following sound levels specified by noise source district and noise receiver district:

Schedule B
Summary of Districts' Permitted Noise Levels

		NOISE RECEIVER DISTRICT							
		QUIET		INTER-MEDIATE		HARBOUR INTER-MEDIATE		ACTIVITY	
		Day	Night	Day	Night	Day	Night	Day	Night
NOISE SOURCE DISTRICT	QUIET	55	45	55	50	55	50	60	60
	INTER-MEDIATE	60	50	60	55	60	55	65	65
	HARBOUR INTER-MEDIATE	60	50	60	55	60	55	65	65
	ACTIVITY	60	55	65	60	67.5	60	70	70

Table 1: Equivalent Sound Level (L_{eq}) Limits (expressed in dBA) for sound or noise created and received in the "Quiet", "Intermediate" and "Activity" Noise Districts

Correction factors for sound levels

10 For all purposes under this Bylaw, when assessing a sound relative to the limits set out in sections 5 to 8 and summarized in Schedule B, the following correction factors must be applied to the measured equivalent sound level whenever the sound has, as a defining characteristic, impulsiveness, tonality, or persistent intermittency:

Impulsiveness

(a) a +5 dB correction if the sound under consideration is impulsive in character;

Tonality

(b) a +5 dB correction if the sound under consideration is tonal (i.e., it contains one or more pure tone components);

(c) in order for the tonality correction to apply if measurement is required to determine the presence of tonality, the level in the one-third octave band containing the tone, or the arithmetic average of the levels in a pair of bands containing the tone, must exceed the arithmetic average of the two adjacent bands

- (i) by 3 dB or more for tones in the 500 Hz. to 16 kHz. bands,
- (ii) by 5 dB or more for tones in the 160 to 400 Hz. bands,
- (iii) and by 10 dB or more for tones in the 31.5 to 125 Hz. bands;

Intermittency

(d) a +5 dB correction if the sound under consideration is persistently intermittent;

Multiple Corrections

(e) a correction equal to the sum of the corrections applicable under paragraphs (a) to (d) for each of the characteristics, described in those paragraphs, that the sound possesses to a maximum of 10 dB.

Noise disturbing neighbourhood

11 (1) Subject to the other provisions of this Bylaw,

- (a) a person must not make or cause a noise or sound in a street, park, plaza or similar public place which disturbs or tends to disturb the quiet, peace rest, enjoyment, comfort or convenience of persons in the neighbourhood or vicinity;
- (b) a person who is the owner or occupier of, or is in possession or control of, real property must not make, suffer, or permit any other person to make, a noise or sound, on that real property, which can be easily heard by a person not on the same premises and which disturbs or tends to disturb the quiet, peace rest, enjoyment, comfort or convenience of persons in the neighbourhood or vicinity.

(2) Subsection (1) does not apply to a person who makes, causes, or permits to be made or caused, a sound or noise in compliance with the provisions of sections 5 to 8 unless the noise or sound is clearly audible at a point of reception in a residential area between the hours of 10:00 p.m. one day and 7:00 a.m. the following day.

 **TORONTO** Public Health

HOW LOUD IS TOO LOUD?

Health Impacts of Environmental Noise in Toronto



Reference:

Toronto Public Health. How Loud is Too Loud? Health Impacts of Environmental Noise in Toronto. Technical Report. April 2017

Authors:

Kelly Drew, Ronald Macfarlane, Tor Oiamo, Meghan Mullaly, Desislava Stefanova, Monica Campbell

We gratefully acknowledge the contributions made by a wide variety of people who helped shape the contents and key ideas presented in this report, including:

Tor Oiamo, Desislava Stefanova (Ryerson University)
Reg Ayre, Kate Bassil, Taryn Ridsdale and Andi Camden (Toronto Public Health)
Renata Moraes (Transportation Services)
Annemarie Baynton (Energy and Environment)
Christian Giles (City Planning)
Elaina MacIntyre (Public Health Ontario)
Eleanor McAteer (Engineering and Construction Services)
Ross Lashbrook (Ministry of Environment and Climate Change)
Vanessa Fletcher, Hamish Goodwin, Mark Sgara, Jessica Walters (formerly) (Municipal Licensing and Standards)

Cover Photo: istock, [Saturated](#)

Distribution:

Copies of this document are available on the Toronto Public Health Web site:

www.toronto.ca/health/reports, or by:

Phone: 416-338-7600

TTY: 416-392-0658

email: publichealth@toronto.ca

Executive Summary

There is increasing concern about the impacts of environmental noise on health, especially in urban areas. The growing body of evidence indicates that exposure to excessive environmental noise does not only impact quality of life and cause hearing loss but also has other health impacts, such as cardiovascular effects, cognitive impacts, sleep disturbance and mental health effects.

Health studies usually report on average noise exposure for a specific period (daytime, nighttime or 24 hrs) and measured as A-weighted decibel levels (dBA). Toronto Public Health (TPH) conducted a noise monitoring study in the early fall of 2016. The average 24-hour equivalent noise levels in Toronto were 62.9 dBA. Average daily levels at individual locations ranged from a low of 50.4 to a high of 78.3 dBA, with mean levels of 64.1 dBA daytime (7:00 a.m. to 11:00 p.m.) and 57.5 dBA nighttime (11:00 p.m. to 7:00 a.m.). Nearly 60 percent of noise in Toronto can be attributed to traffic noise and it is estimated that dissemination areas in the lowest income quintile are almost 11 times more likely to have 50 percent of their residents exposed to night noise levels over 55 dBA, than residents in the highest income quintile. The results of the study show that levels of noise in Toronto are similar to levels found in other large cities such as Montreal and Toronto; as well, similar to other cities there is a disparity between income and exposure to noise.

Non-auditory health impacts of environmental noise were reviewed by the World Health Organization (WHO) in 2009 and 2011. The reports show that cognitive impacts, sleep disturbance mental health and cardiovascular effects could occur at noise levels commonly experienced in urban environments. Toronto Public Health has reviewed the evidence that has accumulated since the WHO evaluation. Newer evidence confirms that health impacts can occur at levels between 42 and 60 dBA outdoors, which is below the 70 dBA benchmark that TPH had previously been considered protective of health. The available evidence suggests that environmental noise in Toronto occurs at levels that could be detrimental to health.

The World Health Organization (2009) established health-protective guidelines of 55 dBA outdoors (Leq 16 hours) for daytime and evening exposures and night-noise exposure guidelines of 40 dBA (outdoors Leq night 8 hours, to keep an indoor average of 30 dBA). Given that 40 dBA is often difficult to achieve in urban centres, the WHO indicated an interim nighttime limit of 55 dBA. The Ontario Ministry of Environment and Climate Change has recommendations for road-related noise thresholds: for sensitive land uses, such as residential uses, mitigation measures are required if outdoor levels at the centre of a window or door opening exceed 55 dBA daytime or 50 dBA nighttime.

Reducing the exposure of environmental noise to residents is multi-pronged and includes periodic assessment of the noise environment through monitoring and modelling, policy interventions (for example, traffic management, building code standards, equipment performance standards, and noise bylaws), and education and engagement of the public. Maintaining a quality outdoor noise environment will contribute to better health and wellbeing. Not only will such an environment promote a more active lifestyle (walking, cycling and active

recreation), which can reduce noise levels from transportation, it will also contribute to a reduction in the risk of chronic disease, making Toronto a healthier city for all.

Table of Contents

Executive Summary.....	4
Glossary.....	7
Environmental Noise and Health.....	8
Noise-induced Hearing Loss.....	9
Non-Auditory Health Impacts of Environmental Noise.....	9
Cardiovascular Effects.....	10
Cognitive Impairment.....	11
Sleep Disturbance.....	11
Mental Health.....	11
Pulmonary.....	12
Emerging Health Evidence.....	12
Discussion.....	13
Noise Levels Recommended for Health.....	14
Noise Levels in Toronto.....	15
Noise Monitoring.....	15
Noise Modelling.....	16
Results.....	17
Populations Affected.....	20
Mitigation and Regulation.....	21
Noise Regulation in Ontario.....	21
Mitigation Best Practice.....	21
Conclusions.....	23
References.....	24
Appendix.....	31

Glossary

Sound levels are reported in decibels (dB) or A-weighted decibels (dBA) which take into account the human perceptions of loudness at different frequencies. The loudness of sound (L) may be expressed in different ways:

Leq: The equivalent continuous level, which is the average level of sound over a period of time (for example hour, day, or year)

Leq 24: The equivalent continuous level, which is the average level of sound over a period of 24 Hours

Ldn: the average equivalent sound level over a 24 hour period with a penalty added for noise during the nighttime hours

Lden: the average equivalent sound level over a 24 hour period with a penalty added for noise during the evening and nighttime hours

Lmax: the maximum level of sound that occurs in a period of time

Lnight: average level during the night (usually 8-hours, for example 11pm to 7 am)

Plane of door or of window: the centre of an exterior window or door opening in a building

SEL: the sound exposure level measured over one second

Environmental Noise and Health

Environmental noise is considered to be any unwanted sounds created by human activity (Murphy, King, & Rice, 2009). Environmental noise includes noise from roads, rail and air, as well as construction noise, music systems (amplified sound), neighbours, small machinery and air conditioners. This makes it an important issue for densely populated urban environments. This definition allows for environmental noise to be considered a type of pollution, an element that can be regulated, controlled and mitigated. As is common practice, environmental noise for the purpose of this study refers to noise outdoors. It does not include noise generated indoors such as noise that travels between units in multi-residential buildings.

Noise is a complex issue to measure as it has several important properties including: loudness (intensity, measured in decibels on a logarithmic scale [dB or dBA]), duration (continuous, intermittent, or impulsive), and frequency (pitch). Measurements of loudness are often reported on the A-weighted scale, and can include additional penalties for evening and night levels (see glossary for additional information on noise measurements). In environmental noise and health research the focus tends to be on average noise levels for a specific period (day, night or 24 hrs) and measured in dBA. Since the decibel is a logarithmic unit, a sound received by the ear at 60 dBA is perceived as twice as loud as sound at 50 dBA.

Until recently the impacts of environmental noise were generally deemed a quality of life issue and the main concern was impact on hearing and annoyance. As Figure 1 shows, within an exposed population, the most severe health impacts from noise exposure will be experienced by a relatively small proportion of the population, but a larger number of people will experience feelings of discomfort or stress.

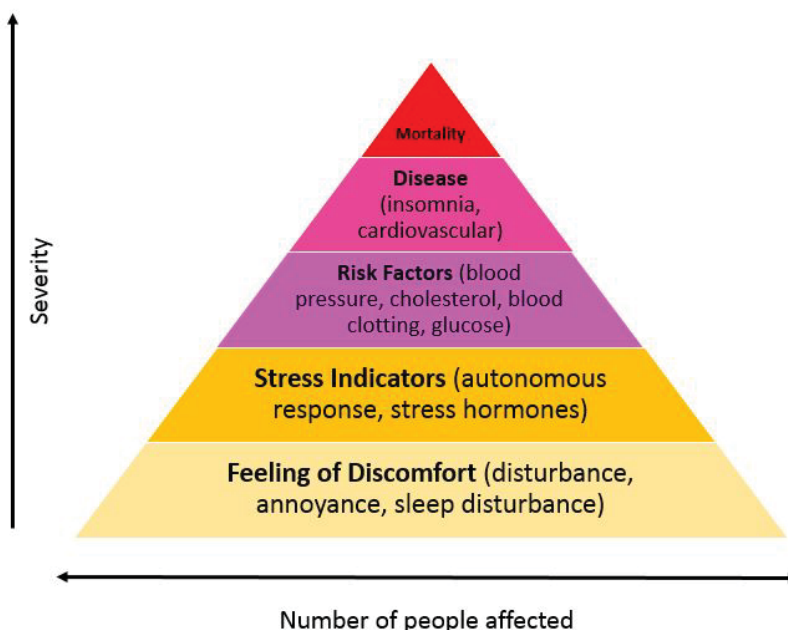


Figure 1: Source: adapted from (Wolfgang Babisch, 2002) as cited in (W Babisch et al., 2010) Noise is considered a biological stressor and a component of one's physical environment, and this therefore one of the determinants of health (Mikkonen & Raphael, 2010). The experience

of noise is based on both noise as heard by the observer and individual sensitivities to noise, with physical and psychological mediators influencing the non-auditory impacts of noise exposure (Murphy & King, 2014). The majority of the available health evidence comes from studies that modelled outdoor noise levels using proximity to roadways, railway tracks or airports to estimate exposure.

Noise-induced Hearing Loss

For a long time, the main health concern related to noise was related to occupational exposure and hearing loss. The World Health Organization (World Health Organization, 2009, 2011) has determined that noise-induced hearing loss is unlikely when average daily exposure to noise is below 70 dBA and impulse sound levels do not exceed 110 dBA. The equivalent 8-hour exposure threshold for hearing loss that includes impulse sounds is 75 dBA (World Health Organization, 1999, 2009, 2011). In Ontario, the Occupational Health and Safety Act protects workers so that no employee is exposed to levels exceeding 85 dBA (8-hour average) (Government of Ontario, 2014). Noise at this level could still result in some hearing loss.

It is important to note that hearing loss or damage is a cumulative impact, as people are exposed to noise throughout their lifetime and hearing damage can build over time. In some cases personal noise exposure is based on choices made, such as ear buds and personal listening devices, operating small equipment without protection or attending concerts and events. While these personal choice exposures were not considered in this review, they can have an impact on health. The WHO considers hearing loss or damage from acute or chronic exposure a health concern as this can affect a person's ability to function in society and result in social isolation. There is now evidence that noise can have other health impacts not related to hearing.

Non-Auditory Health Impacts of Environmental Noise

There has been growing interest in the non-auditory impacts of environmental noise on health. In 2009, the World Health Organization Regional Office for Europe released its Night Noise Guidelines for Europe and in 2011 the Burden of Disease from Environmental Noise. From these comprehensive reviews, the WHO recommended that outdoor noise levels do not exceed an average of 55 dBA during the day and an average of 40 dBA at night.

Toronto Public Health searched the literature published between 2010 and January 2017 to identify any new evidence that had emerged since the WHO review. The health effects that were included were impacts identified in the previous WHO reviews as well as emerging health impacts supported by strong evidence. Diabetes and adverse behavior in children are emerging end-points of concern. Health impacts considered in this review are:

- **Cardiovascular Effects:** myocardial infarction, hypertensive heart disease, ischemic heart disease, high blood pressure, cerebrovascular disease (stroke), coronary heart disease
- **Cognitive Impacts:** impairment (attention, memory adults, errors upon testing in children)

- **Sleep Disturbance:** increased arousals, changes to sleep structure
- **Mental Health:** annoyance, depression, quality of life
- **Pulmonary Effects:** chronic obstructive pulmonary disease, pneumonia
- **Other Effects:** diabetes, behaviour in children

Cardiovascular Effects

Noise exposure has been linked to cardiovascular diseases as vascular tension is impacted by stress responses (Babisch, 2005 in Bodin et al., 2016). These effects have been reported to occur at levels ranging from 55 to 73.6 dBA outdoors.

Myocardial infarction occurs when stress hormones like noradrenaline and cortisol interfere with beta-adrenergic receptors of the circulatory system (Gan, Davies, Koehoorn, & Brauer, 2012). Noise has been associated with an increased risk of mortality from myocardial infarction. Outdoor noise has been linked to increased odds of hypertensive health outcomes as a result of stress which affects individual hormone and blood pressure levels (Sørensen et al., 2011a). A higher arousal of the autonomous nervous and endocrine systems, which is adversely influenced by road traffic noise exposure, is associated with an increased risk of mortality from ischaemic heart disease (World Health Organization, 2011).

Adverse increases in blood pressure from environmental noise are associated with cardiovascular mortality (Chobanian et al., 2003; Ezzati et al., 2002 as cited in Fuks et al., 2011). By influencing factors like atherosclerosis and elevated blood pressure, road traffic noise exposure has been linked to an increased risk of mortality from cerebrovascular disease (stroke) (Sørensen et al., 2014). Exposure to certain noise levels indicate an increase risk in mortality due to impacts on blood pressure, which is a risk factor for the advancement of coronary heart disease, a condition that indicates the blood vessels of the heart are compromised (World Health Organization, 2016).

Recio and colleagues (2016) found a 3.5 percent increase in the risk of death from myocardial infarction and 2.9 percent increase in the risk of death from ischaemic heart disease, and 2.4 percent increase in the mortality rate of cerebrovascular disease for every 1 dBA increase in nighttime noise levels between 58.7 – 76.3 dBA (L_{max} night) for people 65 and older. For people younger than 65, there was an 11 percent increased risk of death from myocardial infarction and ischaemic heart disease for every 1 dBA increase in average nighttime noise levels between 56.2 – 69.9 dBA. Similar results were found in other studies with increased risk of mortality from myocardial infarction and ischaemic heart disease (approximately 55-60 dBA during the day, >50dBA at night)(Seidler et al., 2016a; Sørensen et al., 2012).

Seidler and colleagues (2016b) reported a statistically significant increase in odds of hypertensive heart disease for every 10dBA increase in noise over 55dBA (Leq 24). Banerjee and colleagues (2014) found similar results of increased odds of hypertension at 60dBA (L_{den}) for women and 65dBA (L_{den}) for men. The WHO (2011)found that road traffic noise and air pollution independently impact the prevalence of hypertension. Indoor environmental nighttime noise levels above 30dBA have been associated with increased odds of hypertension and high systolic blood pressure per increase of 5 dBA (Foraster et al., 2014). Sørensen and colleagues (2011a)

reported that in people over 64.5 years of age, exposure to every 10 dBA (Lden) increase in residential road traffic noise was associated with a 27 percent higher risk for stroke.

In analysis of road traffic noise, Gan and colleagues (2011) reports an increased relative risk of mortality from coronary heart disease of 13% for every 10 dBA over 58dBA and 29% for every 10dBA increase over 70 dBA when the effect of PM2.5 was taken in to account. Significant correlations for noise were still found when the effect of black carbon was taken in to account with an increased relative risk of mortality from coronary heart disease of 9% for every 10 dBA over 58 dBA and 22% for every 10 dBA increase over 70 dBA when compared to those with noise exposures less than 58 dBA.

Cognitive Impairment

Van Kempen and colleagues (2012) found an association between students exposed to road and air noise pollution at school and the number of errors made during SAT testing. In contrast, another study reported that children had increased information and conceptual recall when exposed to road or aircraft noise at school (Matheson et al., 2010). It was suggested this was due to context-dependent memory, where people recall information better when exposed to a similar environment where it was originally introduced (Matheson et al., 2010).

Cognitive impairment in adults as a result of exposure to noise has only recently been studied. Initial evidence suggests environmental noise, acts as a sensory stimulant and may hinder cognitive abilities including "attention, memory and executive function" (Wright, Peters, Ettinger, Kuipers, & Kumari, 2016b).

Sleep Disturbance

Sleep disturbance due to noise exposure is a common complaint among noise exposed populations (World Health Organization, 2011). Sleep is important to physical and mental health and well-being. Sleep is involved with the healing and repair of the body, and disturbed or deficient sleep has been linked to an increased risk of many chronic diseases. Sleep disturbance has an impact on metabolic and endocrine function and contributes to the risk of cardiovascular disease. Sleep loss is associated with weight gain, risk of diabetes, and susceptibility to viral illness (World Health Organization, 2009). Chum and colleagues (2015), indicated an increased odds of self-reported sleep disturbance in areas with elevated noise and traffic levels. Increased odds of worse quality sleep was found with outdoor daytime aircraft noise between 50-60 dBA and nighttime noise levels between 50-55 dBA (Schreckenber, Meis, Kahl, Peschel, & Eikmann, 2010).

Mental Health

Annoyance and its link to mental health is an emerging area of research on the impacts associated with exposure to environmental noise. Annoyance to noise results in a multitude of emotional responses including "disturbance, dissatisfaction, displeasure, irritation, nuisance, or anger" ((Van Kempen & Van Kamp, 2005)as cited in Babisch, Schulz, Seiwert, & Conrad, 2012). The condition of annoyance can be conceptualized in one of two ways - as a mediating factor in, or indicator for, biological responses to noise (Evans & Cohen, 1982 as cited in Oiamo,

Luginaah, & Baxter, 2015). In general, the extent and impact of annoyance varies among individuals exposed to environmental noise (Murphy & King, 2014).

A recent study looking at self-reported noise exposures found higher odds of high annoyance in populations exposed to moderate truck traffic when compared to those exposed to light truck traffic and similarly when comparing people exposed to constant truck noise to those exposed to no truck noise (Dratva et al., 2012). When looking at residents living in buildings with one quiet façade, De Kluizenaar and colleagues (2011) found that individuals benefited from both decreased noise exposure at the most exposed façade as well as lower levels of annoyance from road traffic noise. In buildings without a quiet façade the odds of annoyance increased as traffic noise increased (De Kluizenaar et al., 2011). In a study by Schlittmeier and colleagues (2015) that individuals reported average outdoor noise levels of 50 dBA Leq (10 sec) were “significantly less annoying” than when average levels were 70 dBA Leq (10 sec). In 2011, the WHO estimated 42 dBA outdoors as the point at which individuals exhibit high levels of annoyance when exposed to road traffic noise.

Increased stress and sleep disturbance have been suggested as the biological pathways by which environmental noise influences depression. Orban and colleagues (2016) found an association between high noise exposure, defined as 55 dBA Lden outdoors and greater than 50 dBA Lnight and an increased risk of self-reported high depressive symptoms.

Quality of life is defined as "an individual's perception of their position in life in the context of culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" (WHO as cited in Shepherd et al., 2010). The World Health Organization Quality of Life (short-form) scale consists of 26 factors divided into four domains: physical health (7 items), psychological wellbeing (6 items), social relationships (3 items), and environmental factors (8 items). Shepherd and colleagues (2013) found higher scores across all dimensions of the Health-Related Quality of Life (HRQL) scale (except for the social dimension) for individuals residing in areas of median 55 dBA Ldn noise levels, compared to those living in “noisy” regions of median 76 dBA Ldn. In 2016, Shepherd and colleagues found noise annoyance more predictive of "psychological, social and environmental" domain variability on the HRQOL when compared to annoyance from air pollution.

Pulmonary Effects

Chronic obstructive pulmonary disease (COPD) is a term that describes multiple chronic conditions that limit airflow to the lungs (World Health Organization, 2017). Recio and colleagues (2016) found a 4% increase in the risk of death from for every 1 dBA increase with nighttime noise levels ranging from 58.7 to 76.3 dBA (Lmax night) for people 65 and older.

Recio and colleagues (2016) found a 3% increase in the risk of death from pneumonia for every 1 dBA increase with nighttime noise levels from 58.7 – 76.3 dbA (Lmax night) in people 65 and older. The authors suggest that this association is the result of chronic stress from exposure to noise which leads to reduced immunity.

Emerging Health Evidence

There is new but limited evidence for an association between exposure to environmental noise exposure and diabetes and metabolic processes. (Basner et al., 2014; Muenzel et al., 2014 as cited in Tonne et al., 2016). In individuals 65 years and older, exposure to noise at levels ranging from 56.2 to 69.9 dBA Leq night has been associated with a 11 percent increase in relative risk of mortality from diabetes for every one dBA (Recio et al., 2016).

There is some evidence of an association between road traffic noise and increased risk of a higher abnormal total difficulties score, hyperactivity, conduct problems and difficulties with peer relationship in children as based on a standardised Strengths and Difficulties Questionnaire (Hjortebjerg et al., 2016). Another study found an association between increased road traffic noise exposure at school sites and attention deficit hyperactivity disorder symptoms (Forns et al., 2016).

There has been limited focus on low-frequency noise exposure and health impacts in traditional literature (Murphy & King, 2014). Low-frequency noise is generally referring to noise levels from 20-200 Hz, and buildings tend to have difficulty with attenuating these levels (Wise & Leventhall, 2011). There is some evidence that low-frequency noise may contribute to annoyance and sleep disturbance.

Annoyance while known as an impact of environmental noise, it had not been studied much in regard to its relationship with health. Environmental noise is starting to be recognized as an important factor in the health of individuals, particularly as we undergo rapid development and urbanization.

Discussion

Based on the best available health evidence at that time, Toronto Public Health (2000) had concluded that exposure to noise at levels of up to 70 dBA (Leq 24) would not result in any adverse impacts. This review along the WHO 2009 and 2011 reviews indicate that health effects occur at much lower exposure levels (see for example Table 1). Previous evidence found ischaemic heart disease at threshold around 70 dBA, current evidence finds this threshold to start around 58 dBA. Currently, the thresholds for self-reported sleep disturbance is 42 dBA nighttime, where as previously there were around 60 dBA. The more recent evidence reviewed for this report (refer to the Appendix) supports these lower thresholds.

Table 1: Effects of noise on health and wellbeing with sufficient evidence (source: European Environment Agency, 2010)

Effect	Exposure Measure *	Threshold ** (dBA)	Effect type
Annoyance disturbance	L _{den}	42	Chronic
Self-reported sleep disturbance	L _{night}	42	Chronic
Learning, memory	L _{eq}	50	Acute, chronic
Stress hormones	L _{max Leq}	NA	Acute, chronic
Sleep	L _{max, indoors}	32	Acute, chronic

Reported awakening	SEL _{indoors}	53	Acute
Reported health	L _{den}	50	Chronic
Hypertension	L _{den}	50	Chronic
Ischaemic heart diseases	L _{den}	60	Chronic

Note: * L_{den} and L_{night} are defined as outside exposure levels. L_{max} may be either internal or external as indicated.

** Level above which health effects start to occur or start to rise above background. NA – not available.

Policy makers benefit from noise thresholds as they provide standards on which to base limitations on. Some health impacts have been suggested to occur using a no threshold model but evidence for this is limited at the current time. Due to the difference in measurement of the time periods where health effects are seen (day, evening, night), the thresholds are not directly comparable to each other and to guideline levels without conversion.

Noise Levels Recommended for Health

To protect health, the World Health Organization (2009) established night-noise guidelines of 40 dBA (outdoors Leq night 8 hours) to keep an indoor average of 30 dBA. Understanding that 40 dBA is often difficult to achieve in urban centres, they added an interim value of 55 dBA night. Additionally, the WHO recommended daytime levels of 55 dBA (Leq 16 hours). The Ministry of Environment and Climate Change (MOECC) (Government of Ontario, 2013) has recommendations for road related noise thresholds before mitigation measures are required of 55 dBA daytime and 50 dBA nighttime (See Table 2). These levels are applicable to road and stationary sources of noise at the centre of window or door openings for sensitive land uses such as residential properties, hotels, schools, hospitals, and community centres. More information on the MOECC guidelines can be found in the Noise Regulation in Ontario section of this report. The evidence identified in this review supports using the WHO guidelines as maximum noise exposure to protect health.

Table 2 – Outdoor Residential Noise level guidelines from the WHO and MOECC

Measure Detail	Noise Level (dBA)		
	Day	Evening	Night
Noise Duration	12 Hr	4 Hr	8 Hr
Timeframe	7:00-19:00	19:00-23:00	23:00-7:00
Authority			
WHO Target noise guideline	55		40
	Calculated Maximum Equivalent L _{den} : 55.6		
	Calculated Maximum Equivalent L _{den} : 56.5		
MOECC Target noise guideline (1 hr Average)	55		50
	Calculated Maximum Equivalent L _{den} : 58.2		
	Calculated Maximum Equivalent L _{den} : 58.7		

Noise Levels in Toronto

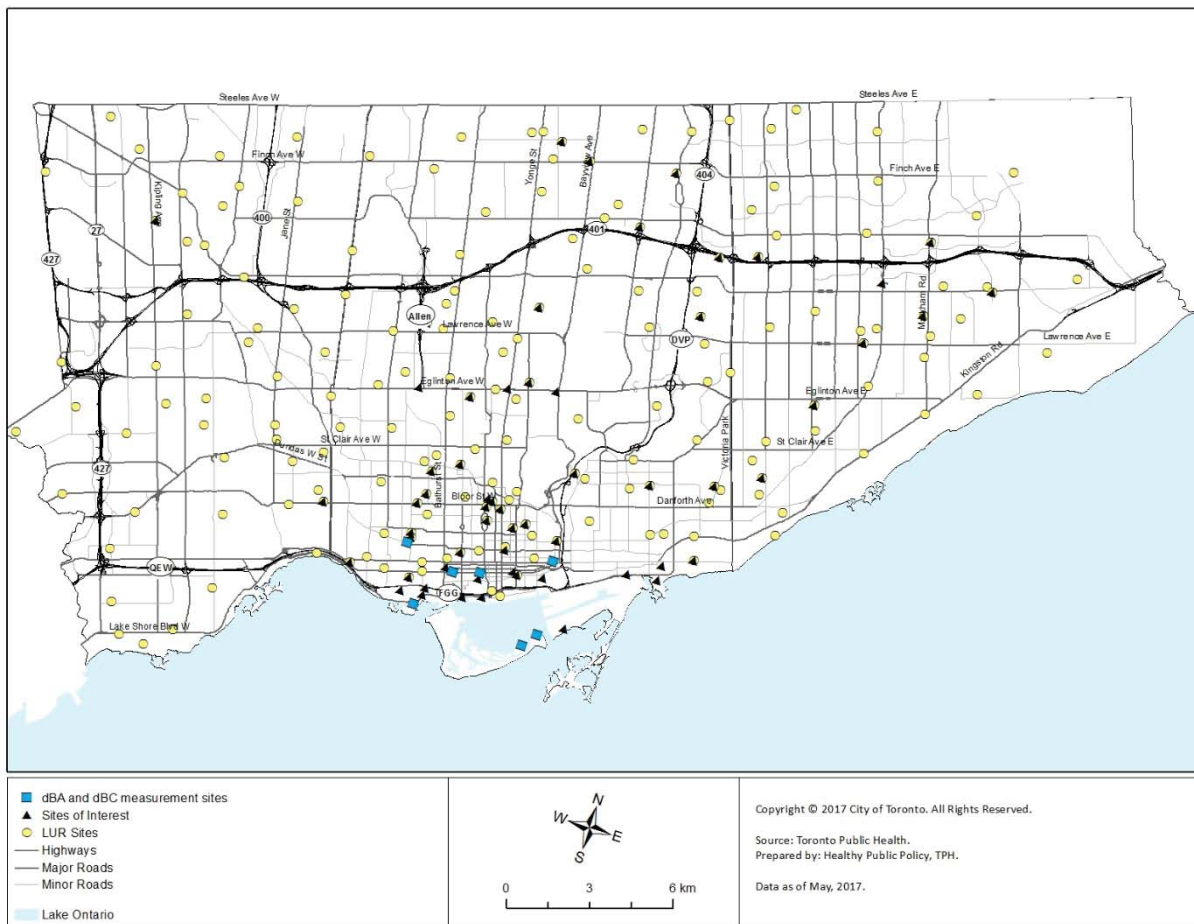
The City of Toronto is currently undergoing a noise bylaw review. To determine if current exposures to noise in Toronto could have a negative impact on health, and inform the revisions to the bylaw Toronto Public Health commissioned a noise monitoring and modelling study, the results of which can be found in Environmental Noise Study in the City of Toronto report (Oiamo, et al., 2017).

Noise Monitoring

Over the period of August to October 2016 a total of 227 noise measurements were made. Noise was monitored using the A-weighted decibel scale at 220 different locations across the City (see Figure 2) for approximately a one week period at each site. Additional measurements were done using the C-weighted scale at seven locations where the noise environment was influenced by sources of amplified sound to provide information on the distribution of lower frequency sounds. The sites were chosen based on a combination of population densities, land uses and sites of interest as determined by the project advisory committee. The project advisory committee suggested locations where events are held, or where residents have expressed concerns about noise or noise levels are expected to be high. The sites were categorised by land use (residential, open space, employment, industrial/commercial, residential), road type (local, collector, major arterial) and sites of interest (schools, long-term care/hospitals, community housing, concert venues, EMS, CNE, BMO field, TTC yards, historic or cultural sites and Toronto island).

The monitoring data was analysed in a number of traditional noise metrics for each site as well as for different categories of sites. Measurements for the full week, weekend and weekdays as well as average measurements for 24 hours (Lden, Leq 24h), day (Leq 16h), night (Leq 8h) and maximum measured 1 second (Lmax). Exceedance levels, values that describe the sound level exceeded in a specified period of time (L1 is 1% of the time, L5 is 5% of the time) were determined for the listed time periods as well. In addition, values were calculated that described the percent of time a noise level was exceeded (for example 95% of the time noise levels at night are above 40dBA).

Figure 2: Noise Monitoring Locations in Toronto (recreated from Oiamo et al., 2017)



Noise Modelling

To better understand the distribution of noise levels and exposure in Toronto, two modelling methods were used; a propagation model, which estimated the percentage of noise from road traffic specifically and a receptor-based land-use regression model that extrapolates the effect of environmental features on observed noise levels. These models were combined to create maps of predicted noise levels for daytime and nighttime across the city.

The modelling results compared the traffic based model to the receptor based land use regression model to determine the areas where the traffic model was over or under predicting noise levels based on the built environment and monitoring results. The study found that the traffic model was over predicting noise levels in areas with high levels of vegetation coverage and was under predicting noise levels in areas where population density was high. The lack of data for rail and air traffic noise means noise emissions from these sources were not modelled in this study. However, the monitoring and modelling process would still take these noise sources in to account but their precise impact on the soundscape could not be inferred. Due to data limitations sound barriers and noise walls could not be included in the modelling process. This led to some of the major roadways noise levels being over estimated in the initial traffic model. These over and under estimations were corrected for in the final modelling process.

It should be noted that land use regression is a math based approach to predicting exposures, and in this case a modelled approach to predicting where the noise from the traffic model was over or under estimated. The predictors for vegetation coverage, population density, distance to airports and railways all logically relate to noise level estimates. The interpretation of how other predictor's effect noise levels is less straight forward. Detailed methods for the modelling methods uses can be found in the report of Oiamo and colleagues (2017).

To estimate population noise exposures, the noise estimates from the final daytime and nighttime surface models were linked to Statistics Canada population estimates. Noise was estimated for the exposed façade of all residential buildings in Toronto and dissemination block level population data were used to estimate the number of residents in each building based on building size. From this, the proportion of residents exposed to daytime and nighttime levels at certain thresholds was estimated. To estimate the impact on vulnerable populations a logistic regression model was used to look at the relationship between income and noise. Household incomes were linked to dissemination areas where nighttime noise levels exceeded 55dBA for at least 50% of the residents.

Results

The monitoring study found the average 24-hour equivalent noise levels across the city to be 62.9 dBA. Average daily levels at each site ranged from a low of 50.4 to a high of 78.3 dBA. Daytime and night time averages can be seen in Table 3. Weekdays were found to be louder than weekends across the city.

The dBC measurements were primarily taken in areas where there was a known source of amplified sound. It was observed that the dBC values did not decrease with the dBA values during the latenight hours but the cause of this is unknown, but could be due to vibration of low frequency amplified sound.

Table 3 – Average dBA levels from noise monitoring. (Source: Oiamo et al., 2017)

dBA (n=220)	Full Week				Weekday				Weekend			
	Lden	Leq24h	LeqD	LeqN	Lden	Leq24h	LeqD	LeqN	Lden	Leq24h	LeqD	LeqN
Mean	66.4	62.9	64.1	57.5	66.7	63.2	64.5	57.6	65.3	61.2	62.4	56.8
Median	65.3	61.9	63.2	56.4	65.4	62.1	63.4	56.1	64.5	60.6	61.9	55.9
Std. Devi	6.9	6.4	6.3	7.8	6.9	6.3	6.2	7.9	7.3	7	7	7.9
Minimum	54	50.4	51.6	42.6	53.9	50.7	52.2	42.2	51.3	47.5	48.4	43.5
Maximum	82.3	78.3	79.5	74.4	82.9	78.9	80.1	74.8	80.8	76.5	77.8	74.1

Note: Lden is the average equivalent sound level over a 24 hour period with a penalty added for noise during the evening and nighttime hours; Leq is The equivalent continuous level, which is the average level of sound over 24 hours; LeqD is The equivalent continuous level, which is the average level of sound over 16 daytime hours; LeqN is The equivalent continuous level, which is the average level of sound over 8 nighttime hours;

Observed average noise levels among the sites of interest varied depending on the type of site or land-use. The lowest noise levels were observed in residential areas and along local roads. As expected, the highest levels were observed in mixed-use areas and along major arteries. Sites identified as close to construction activities also exhibited higher average noise compared to the overall average noise levels. Monitoring was completed in late summer early fall, which corresponds to peak construction season. High average noise levels were noted near busy TTC facilities and an EMS station and monitors in proximity to large gatherings of people also indicated high noise exposures at specific periods in time (BMO Field and CNE). The noise bylaw identifies quiet zones, which are defined as hospital, retirement home, nursing home, senior citizens residence, or other similar uses. Monitoring locations in or near ‘quiet zones’ showed similar patterns to overall levels. This might be due to the fact these facilities are generally found along major roads, and may have a larger number of emergency vehicles passing close by.

Overall the study found that 62% of the time the mean noise level was above 55dBA during the day (Leq_{day}) and 54% of the time above 50dBA (Leq_{night}) at night. The modelling indicated that 59% of the noise in Toronto can be attributed to traffic (Leq24). This result is similar to the results of comparable studies in Montreal and Vancouver. Sound levels at the majority of locations that were specifically selected because of concerns about noise did show higher noise levels overall than other sites.

Figure 3, is a map of the final predicted daytime noise levels based on traffic and land use regression modelling combined. The traffic noise dominates the map, there are higher levels in the downtown core and some areas near the highways. Areas of parkland and ravines have the lowest estimated noise levels. Figure 4 is the average predicted night time noise levels, and demonstrates a similar pattern as the daytime results. At night, the roads still dominate and the downtown core is still relatively loud, but the overall noise levels are lower.

Figure 3 - Predicted daytime (Leq16) noise levels in Toronto

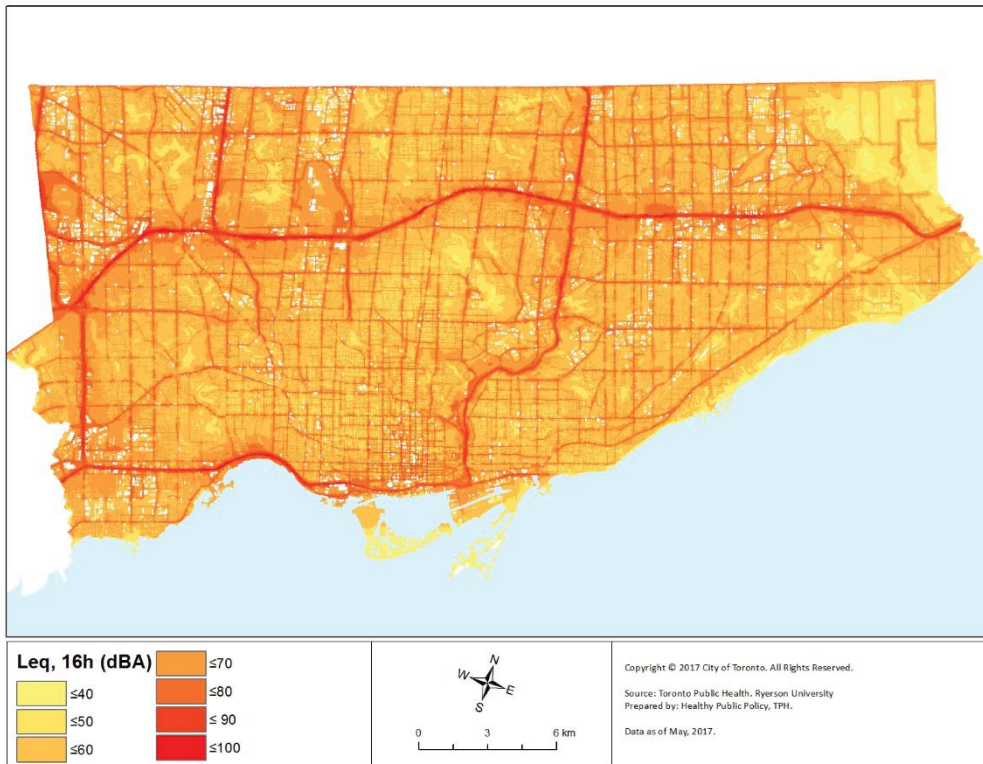
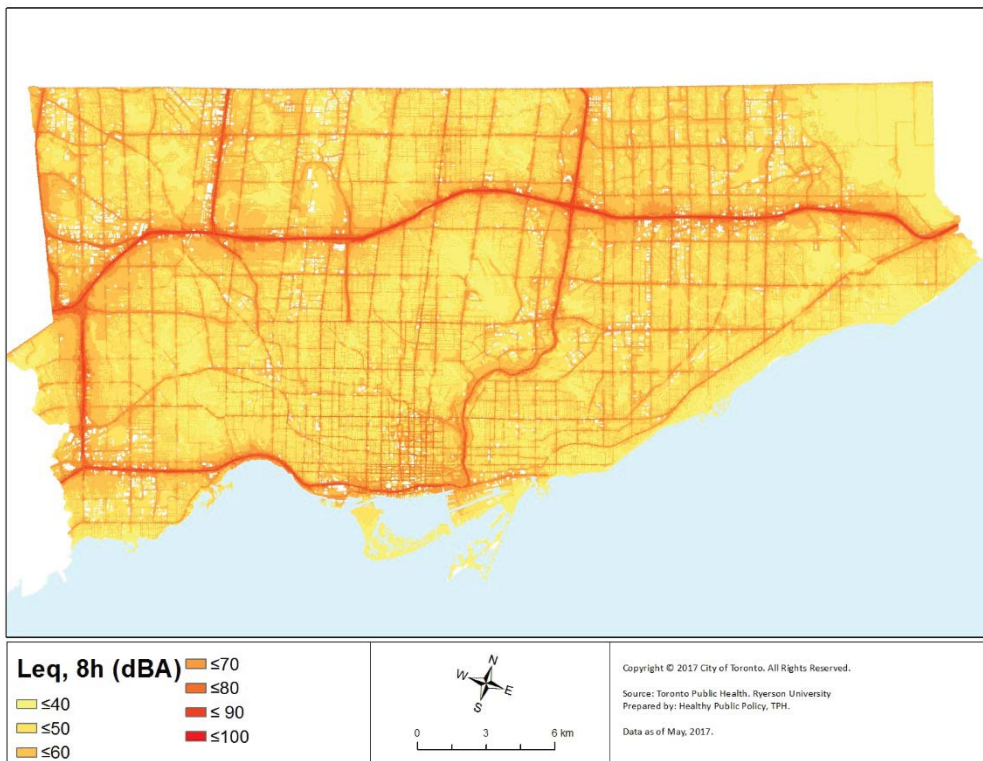


Figure 4 - Predicted nighttime (Leq8) noise levels in Toronto



Populations Affected

Table 4, has the percent of the estimated population exposed to certain noise levels at various time periods. For example, 88.7% of the population is estimated to be exposed to levels above 55 dBA during the day, and 43.4% is estimated to be exposed to above this level at night.

Table 4 – Estimated Population Exposed to Noise above selected noise exposure levels

Noise Threshold	Number of people exposed above the threshold (millions)	Percentage of people exposed above the threshold
LAeq, 24h, 65 dBA	0.85	30.1%
LAeq, 24h, 55 dBA	2.03	72.2%
LAeq16, day, 65 dBA	1.09	38.8%
LAeq16, day, 55 dBA	2.49	88.7%
LAeq8 ,night, 55 dBA	1.22	43.4%
LAeq8, night, 45 dBA	2.60	92.3%

Dissemination areas in the lowest income quintile are nearly 11 times more likely have 50% of their residents exposed to a nighttime noise above 55 dBA than do residents in dissemination areas in the highest income quintile (Table 5). Overall, a large percentage of residents in Toronto are exposed to noise that exceed objectives for outdoor noise, especially nighttime exposure at home. People living near major arterial roads or in areas with mixed commercial and residential uses are also more exposed.

Table 5 – Logistic regression predicting dissemination areas with 50% of residents exposed to nighttime noise levels exceeding 55 dBA. (Source: Oiamo et al., 2017).

	Odds Ratio**	95% Confidence Interval
Highest Income Quintile (Reference Category)		
4	1.84	1.38-2.44
3	2.18	1.64-2.89
2	3.76	2.87-4.92
Lowest income Quintile	10.99	8.42-14.36

** significant at $p < 0.0001$

Mitigation and Regulation

Noise Regulation in Ontario

Health Canada does not have any exposure guidelines for environmental noise. The 8-hour workplace permissible exposure limit in Ontario is 85 dBA. Some hearing loss can still be expected at this level of exposure.

The Ontario Environmental Noise Guideline, from the Ministry of Environment and Climate Change is applicable to stationary and transportation sources of noise (NPC-300) identifies various limits depending on area, source of noise, time of day, and type of noise. Noise sensitive land uses include residential properties, hotels, schools, hospitals, and community centres.

For example, the MOECC guidelines indicate that for road-related noise, control measures (such as sound proofing and ensuring adequate ventilation so that windows or doors can be kept closed) is not be required if the sound level in the plane of a bedroom or living/dining room window is less than or equal to 55 dBA (daytime) and 50 dBA (night-time). If the sound level in the plane of a bedroom or living/dining room window is greater than 65 dBA (daytime) or 60 dBA (night-time), noise mitigation is required, which may include installation of central air conditioning to maintain adequate ventilation, so that noise levels are kept below an average of 45 dBA in living areas, with a provision of night-time average levels of 40 dBA in sleeping quarters due to road-related noise; the corresponding values for rail-related noise are 40 and 35 dBA.

NPC-300 also includes a graduated scale for impulse noise (short burst of loud noise) depending on number of impulses per hour ranging from 80-50 dBA (impulse, outdoor), with a provision for higher allowable noise levels in Class 4 areas (areas where new sensitive land uses are built next to existing stationary source of noise).

The current City of Toronto noise bylaw sets out specific rules for noise depending on the location and time of day. The bylaw covers a variety of noise sources including amplified sound, construction noise and general noise. The bylaw regulates types of noise not covered in other regulations, and includes provisions for quiet zones and times. Other common sources of noise such as transportation, rail, industrial and workplace noise are regulated through provincial or federal instruments.

Mitigation Best Practice

There are a number of strategies available to help mitigate impacts from environmental noise. Land-use planning is a preferred choice, which includes separating loud land uses from sensitive ones and site design and building layouts that site sleeping areas away from noise sources. In developed urban environments this option is not always available to planners.

Controlling the noise at the source would be the next best choice in mitigation practice. This can include enclosing it, use of silencers or mufflers, and limiting the times of operation. Amplified sound for events such as large scale concerts or outdoor events, noise leakage can be

mitigated through specific time limitation, speaker layout and design and other noise insulation strategies, such as soundproofing or using tents.

Creating barriers to reduce the amount of sound that reaches the receiver is also a common approach. This includes noise barriers, setback requirements, and mounds and trenches. Controls on the receiver of the noise generally are related to building design, such as sound insulation, window glazing, and enclosed balcony to buffer noise. Codes may require stronger attenuation requirements for buildings near major noise sources to reduce the intrusion on occupants.

Many jurisdictions have noise level limits for road noise which may vary according to the adjacent land use. Most commonly limits are between 55-70 dBA, for daytime road traffic noise levels near residential land uses. In addition to physical noise barriers, walls and buffers for traffic noise, dynamic traffic management has been suggested as an effective mitigation strategy. This could include traffic restrictions around vulnerable populations (schools, hospitals), reduced nighttime vehicle operations, coordinated traffic signals, and street design that favours non-automobile uses. Higher vehicle speeds results in higher road noise; for example, there is an effective doubling of noise levels from 30km/h to 50km/h (Department of Transportation, 1998). Updates in paving materials can create smoother surfaces and thus result in less road noise.

The way things are built and the materials used can have a large impact on the noise levels being produced from all sources of environmental noise. For example, wheel and tire design and materials can lower noise levels by 2-15 dBA; new paving materials can reduce road noise; and, the electrification of cars, buses, trains and trucks are expected to reduce traffic noise.

Some construction noise levels can be reduced through method and equipment choices, noise barriers and scheduling both time of day and limiting the number of concurrent noise sources. Generally electric versions of small equipment are quieter than their gas powered counterparts. The requirement for noise ratings and labelling can encourage and facilitate the purchase of and use of more quiet equipment.

The European Union noise directive (European Commission, 2002) requires urban areas with population of over 100,000 to assess their noise environment on a regular basis, including the impact road, rail, and airport noise. Municipalities are also required to develop noise management action plans in consultation with the public. These plans cover the exposure to environmental noise, prevention and reduction strategies and preserving environmental noise quality where levels are good¹. A review of this requirement has found this practice effective as it has brought attention to the importance of noise as a public health risk (European Commission, 2016).

¹ For a Step by step approach for developing noise Action Plans, see Kloth, M and colleagues (2008) <http://www.noiseineu.eu/fr/3527-a/homeindex/file?objectid=3161&objectypeid=0>

Conclusions

The health impacts associated with environmental noise are both acute and chronic in nature. In addition to noise-induced hearing loss, there is growing body of evidence that shows an association between environmental noise and health impacts including cardiovascular disease cognitive impairment in adults and children, sleep disturbance and mental health impacts. Emerging evidence suggests that exposure to environmental noise could lead to adverse pulmonary effects increased mortality from diabetes, and negative impact on behaviour in children.

The health evidence suggests that older adults and young children may be more at risk. Furthermore, in Toronto lower income populations who are already experience poorer health are also more likely exposed to more noise than people with higher income.

Results of the noise monitoring and modelling study indicate that noise levels in Toronto are above the World Health Organization's limits for both daytime and nighttime exposure, and thus likely to contribute to the burden of illness in the city. Given the ubiquitous nature of this exposure a comprehensive approach to noise management in the city will be required to effectively limit unnecessary exposure to noise and ensure that noise exposures do not increase over time.

Approaches that can be used to reduce exposure to noise include choosing technologies that are quieter, setting planning requirements, adopting improved building codes, implementing traffic management measures, and prescribing limits and noise mitigation measures in the noise bylaw.

Given that almost 60% of the noise in Toronto can be attributed to traffic noise, implementing measures to reduce exposure to noise from transportation sources should be a priority. Maintaining a quality outdoor noise environment will contribute to better health and wellbeing. Not only will such an environment promote it a more active lifestyle (walking, cycling and active recreation), which can reduce noise levels from transportation, it will also contribute to a reduction in the risk of chronic disease, making Toronto a healthier city for all.

References

- Babisch, W., Dutilleul, G., Paviotti, M., Backman, A., Gergely, B., McManus, B., ... van den Berg, M. (2010). Good practice guide on noise exposure and potential health effects. In *European Environmental Agency Technical report*.
- Babisch, Wolfgang. (2002). The noise/stress concept, risk assessment and research needs. *Noise and Health, 4*(16), 1.
- Babisch, Wolfgang, Schulz, C., Seiwert, M., & Conrad, A. (2012). Noise annoyance as reported by 8-to 14-year-old children. *Environment and Behavior, 44*(1), 68–86.
- Banerjee, D., Das, P. P., & Fouzdar, A. (2014). Urban residential road traffic noise and hypertension: a cross-sectional study of adult population. *Journal of Urban Health, 91*(6), 1144–1157.
- Bodin, T., Björk, J., Mattisson, K., Bottai, M., Rittner, R., Gustavsson, P., ... Albin, M. (2016). Road traffic noise, air pollution and myocardial infarction: a prospective cohort study. *International Archives of Occupational and Environmental Health, 89*(5), 793–802.
- Chobanian, A. V., Bakris, G. L., Black, H. R., Cushman, W. C., Green, L. A., Izzo, J. L., ... Wright, J. T. (2003). Seventh report of the joint national committee on prevention, detection, evaluation, and treatment of high blood pressure. *Hypertension, 42*(6), 1206–1252.
- Chum, A., O'Campo, P., & Matheson, F. (2015). The impact of urban land uses on sleep duration and sleep problems. *The Canadian Geographer/Le Géographe Canadien, 59*(4), 404–418.
- De Kluizenaar, Y. de, Salomons, E. M., Janssen, S. A., van Lenthe, F. J., Vos, H., Zhou, H., ... Mackenbach, J. P. (2011). Urban road traffic noise and annoyance: The effect of a quiet façade. *The Journal of the Acoustical Society of America, 130*(4), 1936–1942.

Department of Transportation. (1998). FHWA TRAFFIC NOISE MODEL (FHWA TNM®) TECHNICAL MANUAL, U.S.

Dratva, J., Phuleria, H. C., Foraster, M., Gaspoz, J.-M., Keidel, D., Künzli, N., ... Gerbase, M. W. (2012). Transportation noise and blood pressure in a population-based sample of adults. *Environmental Health Perspectives*, 120(1), 50.

European Commission. (2002). Environmental Noise Directive. Retrieved May 11, 2017, from http://ec.europa.eu/environment/noise/directive_en.htm

European Environment Agency. (2010). Good practice guide on noise exposure and potential health effects. European Environment Agency, Copenhagen. Retrieved from <https://www.eea.europa.eu/publications/good-practice-guide-on-noise>

Ezzati, M., Lopez, A. D., Rodgers, A., Vander Hoorn, S., Murray, C. J., & Comparative Risk Assessment Collaborating Group. (2002). Selected major risk factors and global and regional burden of disease. *The Lancet*, 360(9343), 1347–1360.

Foraster, M., Künzli, N., Aguilera, I., Rivera, M., Agis, D., Vila, J., ... Ramos, R. (2014). High blood pressure and long-term exposure to indoor noise and air pollution from road traffic. *Environmental Health Perspectives*, 122(11), 1193.

Forns, J., Dadvand, P., Foraster, M., Alvarez-Pedrerol, M., Rivas, I., López-Vicente, M., ... Cirach, M. (2016). Traffic-related air pollution, noise at school, and behavioral problems in Barcelona schoolchildren: a cross-sectional study. *Environmental Health Perspectives*, 124(4), 529.

Fuks, K., Moebus, S., Hertel, S., Viehmann, A., Nonnemacher, M., Dragano, N., ... Erbel, R. (2011). Long-term urban particulate air pollution, traffic noise, and arterial blood pressure. *Environmental Health Perspectives*, 119(12), 1706.

- Gan, W. Q., Davies, H. W., Koehoorn, M., & Brauer, M. (2012). Association of long-term exposure to community noise and traffic-related air pollution with coronary heart disease mortality. *American Journal of Epidemiology*, 175(9), 898–906.
- Government of Ontario. (2013). Environmental Noise Guideline - Stationary and Transportation Sources - Approval and Planning (NPC-300) | Ontario.ca. Retrieved May 11, 2017, from <https://www.ontario.ca/page/environmental-noise-guideline-stationary-and-transportation-sources-approval-and-planning>
- Government of Ontario. (2014, July 24). Ontario Occupational Health and Safety Act. Retrieved May 11, 2017, from <https://www.ontario.ca/laws/view>
- Hjortebjerg, D., Andersen, A. M. N., Christensen, J. S., Ketznel, M., Raaschou-Nielsen, O., Sunyer, J., ... Sørensen, M. (2016). Exposure to road traffic noise and behavioral problems in 7-year-old children: a cohort study. *Environmental Health Perspectives*, 124(2), 228.
- Matheson, M., Clark, C., Martin, R., Van Kempen, E., Haines, M., Barrio, I. L., ... Stansfeld, S. (2010). The effects of road traffic and aircraft noise exposure on children's episodic memory: The RANCH Project. *Noise and Health*, 12(49), 244.
- Mikkonen, J., & Raphael, D. (2010). *Social determinants of health: The Canadian facts*. York University, School of Health Policy and Management.
- Murphy, E., & King, E. (2014). *Environmental noise pollution: Noise mapping, public health, and policy*. Newnes.
- Murphy, E., King, E. A., & Rice, H. J. (2009). Estimating human exposure to transport noise in central Dublin, Ireland. *Environment International*, 35(2), 298–302.
- Oiamo, T. H., Davies, H. W., Rainham, D., & Rinner, C. (2017, April). Environmental Noise Study in the City of Toronto.

- Oiamo, T. H., Luginaah, I. N., & Baxter, J. (2015). Cumulative effects of noise and odour annoyances on environmental and health related quality of life. *Social Science & Medicine, 146*, 191–203.
- Orban, E., McDonald, K., Sutcliffe, R., Hoffmann, B., Fuks, K. B., Dragano, N., ... Pundt, N. (2016). Residential Road Traffic Noise and High Depressive Symptoms after Five Years of Follow-up: Results from the Heinz Nixdorf Recall Study. *Environmental Health Perspectives, 124*(5), 578–585.
- Recio, A., Linares, C., Banegas, J. R., & Díaz, J. (2016). The short-term association of road traffic noise with cardiovascular, respiratory, and diabetes-related mortality. *Environmental Research, 150*, 383–390.
- Schlittmeier, S. J., Feil, A., Liebl, A., & Hellbrück, J. (2015). The impact of road traffic noise on cognitive performance in attention-based tasks depends on noise level even within moderate-level ranges. *Noise & Health, 17*(76), 148.
- Schreckenber, D., Meis, M., Kahl, C., Peschel, C., & Eikmann, T. (2010). Aircraft noise and quality of life around Frankfurt Airport. *International Journal of Environmental Research and Public Health, 7*(9), 3382–3405.
- Seidler, A., Wagner, M., Schubert, M., Dröge, P., Pons-Kühnemann, J., Swart, E., ... Hegewald, J. (2016a). Myocardial Infarction Risk Due to Aircraft, Road, and Rail Traffic Noise. *Deutsches Ärzteblatt International, 113*(24).
- Seidler, A., Wagner, M., Schubert, M., Dröge, P., Römer, K., Pons-Kühnemann, J., ... Hegewald, J. (2016b). Aircraft, road and railway traffic noise as risk factors for heart failure and hypertensive heart disease—A case-control study based on secondary data. *International Journal of Hygiene and Environmental Health, 219*(8), 749–758.

- Shepherd, D., Welch, D., Dirks, K. N., & Mathews, R. (2010). Exploring the relationship between noise sensitivity, annoyance and health-related quality of life in a sample of adults exposed to environmental noise. *International Journal of Environmental Research and Public Health*, 7(10), 3579–3594.
- Shepherd, D., Welch, D., Dirks, K. N., & McBride, D. (2013). Do quiet areas afford greater health-related quality of life than noisy areas? *International Journal of Environmental Research and Public Health*, 10(4), 1284–1303.
- Sørensen, M., Andersen, Z. J., Nordsborg, R. B., Jensen, S. S., Lillelund, K. G., Beelen, R., ... Raaschou-Nielsen, O. (2012). Road traffic noise and incident myocardial infarction: a prospective cohort study. *PLoS One*, 7(6), e39283.
- Sørensen, M., Hvidberg, M., Andersen, Z. J., Nordsborg, R. B., Lillelund, K. G., Jakobsen, J., ... Raaschou-Nielsen, O. (2011a). Road traffic noise and stroke: a prospective cohort study. *European Heart Journal*, 32(6), 737–744.
- Sørensen, M., Lühndorf, P., Ketznel, M., Andersen, Z. J., Tjønneland, A., Overvad, K., & Raaschou-Nielsen, O. (2014). Combined effects of road traffic noise and ambient air pollution in relation to risk for stroke? *Environmental Research*, 133, 49–55.
- Tonne, C., Halonen, J. I., Beevers, S. D., Dajnak, D., Gulliver, J., Kelly, F. J., ... Anderson, H. R. (2016). Long-term traffic air and noise pollution in relation to mortality and hospital readmission among myocardial infarction survivors. *International Journal of Hygiene and Environmental Health*, 219(1), 72–78.
- van Kempen, E., Fischer, P., Janssen, N., Houthuijs, D., van Kamp, I., Stansfeld, S., & Cassee, F. (2012). Neurobehavioral effects of exposure to traffic-related air pollution and transportation noise in primary schoolchildren. *Environmental Research*, 115, 18–25.

- Van Kempen, E., & Van Kamp, I. (2005). Annoyance from air traffic noise: Possible trends in exposure-response relationships. *National Institute of Public Health and the Environment, Bilthoven, Report*.
- Wise, S., & Leventhall, G. (2011). Active noise control as a solution to low frequency noise problems. *Noise Notes, 10*(1), 29–37.
- World Health Organization. (1999). Guidelines for community noise. *WHO, Geneva*.
- World Health Organization. (2009). Night noise guidelines for Europe. 2009. *Copenhagen: World Health Organization*.
- World Health Organization. (2011). Burden of disease from environmental noise. *WHO Regional Office of Europe*.
- World Health Organization. (2016). Cardiovascular diseases (CVDs). Retrieved from <http://www.who.int/mediacentre/factsheets/fs317/en/>
- World Health Organization. (2017). Chronic obstructive pulmonary disease (COPD). Retrieved from <http://www.who.int/respiratory/copd/en/>.
- Wright, B. A., Peters, E. R., Ettinger, U., Kuipers, E., & Kumari, V. (2016b). Moderators of noise-induced cognitive change in healthy adults. *Noise & Health, 18*(82), 117.

Appendix: Health Impacts of Environmental Noise Exposure:
Literature Review Evidence Summary Table

Reference	Noise Source	Adjustment for Air Pollution	Noise Detail	Threshold, or Mean and Range measured, or Lowest effect level (as available)	Findings
Cardiovascular mortality (overall)					
Recio et al., 2016	All	Yes	Leq night (0-8h)	Mean (SD) = 60.2 (1.0) Range = 56.2 – 69.9 dB(A)	RR = 1.033 (95% CI: 1.017, 1.049) per 1 dB(A) increase in Leqn at lag 0, ≥ 65 age RR = 1.050 (95% CI: 1.004, 1.098) per 1 dB(A) increase in Leqn at lag 0, < 65 years of age
Myocardial infarction morbidity or mortality					
Recio et al., 2016	All	Yes	Lmax night (0-8h)	Mean (SD) = 63.9 (1.7) Range = 58.7 - 76.3 dB(A)	RR = 1.035 (95% CI: 1.011,1.061) (mortality rate of myocardial infarction) per 1 dB(A) increase in Lnmax at lag 0, ≥ 65 age
			Leq night (0-8h)	Mean (SD) = 60.2 (1.0) Range = 56.2 – 69.9 dB(A)	RR = 1.11 (95% CI: 1.042,1.192) (mortality rate of myocardial infarction) per 1 dB(A) increase in Leqn at lag 0, < 65 years of age
Sorensen et al., 2012	Road	Yes	Lden	Range = 42–84 dB	IRR = 1.12 (myocardial infarction) per 10 dB(A) increase for both yearly exposure at the time of diagnosis (95% CI: 1.02, 1.22) and 5 years, time-weighted mean (95% CI: 1.02, 1.23) preceding the diagnosis
Seidler et al., 2016a	Road	No	Leq (24h) The evaluation was performed on the basis of the	Increased risk estimates can be seen starting from a road traffic noise level of 55 dB. The	OR = 1.028 (95% CI: 1.25, 4.5) per 10 dB(A) increase in Leq (24h) (myocardial infarction)

			continuous 24-hour noise level and the categorized noise level (in 5 decibel classes).	OR reaches statistical significance at a noise level between 60 dB and <65 dB (OR = 1.09 (95% CI: 1.02, 1.16)); the highest OR of 1.13 (95% CI: 1.00, 1.27) is found with a 24-hour continuous noise level ≥ 70 dB. For night-time hours between 10 p.m. and 6 a.m., the risk increases when road traffic noise increases above 50 dB (statistically significant in some cases).	
	Rail			For rail traffic, in the 50 to <55 dB category there is a statistically borderline significantly raised OR of 1.05 (95% CI: 1.00, 1.10); in the 55 to <60 dB category the OR is 1.04 (95% CI: 0.97, 1.12); while in the highest sound level category, 70 dB and upwards, the OR is 1.16 (95% CI: 0.93, 1.46). For night-time hours from 10 p.m. to 6 a.m, the ORs begin to rise notably at noise levels of ≥ 60 dB (OR = 1.10 (95% CI: 1.01, 1.20)).	OR = 1.023 (95% CI: 0.5, 4.2) per 10 dB(A) increase in Leq (24h) (myocardial infarction)
Hypertensive heart disease					

Babisch et al., 2014a	Road	Yes	<p>Lden</p> <p>Unit scale was 10 dB(A). For graphical presentation of the results the noise levels were categorized in 5-dB(A) categories using ≤45 dB(A) as a reference category [noise level categories: ≤ 45, 46–50, 51–55, 56–60, 61–65, ≥ 66 dB(A)].</p>	Range = 31–80 dB(A)	OR = 1.43 (95% CI: 1.10, 1.86) per 10 dB(A) increase in Lden (isolated systolic hypertension)
Seidler et al., 2016b	Road	No	<p>Leq (24h)</p> <p>For all continuous analyses, a starting point of 35 dB was chosen for noise in the range virtually indiscernible from background noise, below 40 dB.</p> <p>The continuous sound levels for each traffic noise source were grouped in 5 dB categories.</p> <p>For the analysis of road and railway traffic noise, cases and control subjects with noise exposure of less than 40 dB were grouped into the reference category. For the analysis of aircraft noise, individuals exposed to a continuous sound pressure level below 40 dB with the nightly maximum level exceeding 50 dB six or more times (NAT 6) were grouped into a</p>	The categorical analysis showed a nearly monotonous risk increase, reaching statistical significance from 55 dB upwards.	OR = 1.024 (95% CI: 1.016, 1.032) per 10 dB(A) increase in Leq (24h) (hypertensive heart failure)
	Rail			OR = 1.031 (95% CI: 1.022, 1.041) per 10 dB(A) increase in Leq (24h) (hypertensive heart disease)	
	Aircraft			<p>In the categorical analysis, the OR was significantly elevated to 1.07 (95%CI 1.04–1.09) at 45 to <50 dB sound levels.</p> <p>For individuals with 24-h continuous aircraft noise levels <40 dB and nightly maximum aircraft noise levels exceeding 50 dB six or more times, a significantly increased risk was observed.</p>	OR = 1.016 (95% CI: 1.003, 1.030) per 10 dB(A) increase in Leq (24h) (hypertensive heart disease)

			separate exposure category.		
Banerjee et al., 2014	Road	No	Lden Noise exposure was grouped into two categories (<60 dB(A)) according to the facade Lden levels. The choice of 60 dB(A) as cutoff point was due the fact that, firstly, it was close to the median Lden value (62.5 dB(A)) and, secondly, most studies have reported 60 dB(A) for similar investigations.	>65 dB(A) Lden (for men) >60 dB(A) Lden (for women)	OR = 1.99 (95% CI: 1.66, 2.39) per 5 dB(A) increase in Lden (hypertension)
Foraster et al., 2014	Road	Yes	Night	Median indoor sound modelled = 27.1 dB(A)	OR = 1.06 (95% CI: 0.99, 1.13) per 5 dB(A) increase in Lnight (hypertension)
				Median sound modeled at bedroom façade = 53.5 dB(A)	OR = 1.07 (95% CI: 1.01, 1.14) per 5 dB(A) increase in Lnight (hypertension)
				Median sound modeled outdoors = 56.7 dB(A)	OR = 1.19 (95% CI: 1.02, 1.40) per 5 dB(A) increase in Lnight (hypertension)
Ischemic heart disease morbidity and mortality					
Recio et al., 2016	All	Yes	Lmax night (0-8h)	Mean (SD) = 63.9 (1.7) Range = 58.7 - 76.3 dB(A)	RR = 1.029 (95% CI: 1.010, 1.048) (mortality rate of ischemic heart disease) per 1 dB(A) increase in Lnmax at lag 0, ≥ 65 age
			Leq night (0-8h)	Mean (SD) = 60.2 (1.0) Range = 56.2 – 69.9 dB(A)	RR = 1.108 (95% CI: 1.042, 1.177) (mortality rate of ischemic heart disease) per 1 dB(A) increase in Leqn at lag 0, < 65 years of age

Sorensen et al., 2011a	Road	Yes	Lden Linear and categorical analyses performed with seven noise exposure categories (55–58, 58–61, 61–64, 64–67, 67–70, 70–73, and >73 dB) and a reference category (≤ 55 dB). 55 dB used as the reference because this is often the limit value for noise in outdoor residential areas, and used exposure categories of 3 dB because this difference is a doubling in acoustical energy. IRRs were calculated for above and below 64.5 years of age, corresponding to the median age at stroke diagnosis among the cases.		IRR = 1.14 (95% CI: 1.03, 1.25) (ischaemic stroke) per 10 dB increase in Lden
				Mean exposure < 64.5 years = 57.8 dB Mean exposure \geq 64.5 years = 58.2 dB	IRR = 1.27 (95% CI: 1.13, 1.43), (ischaemic stroke) per 10 dB increase in Lden, \geq 64.5 years of age
Systolic blood pressure					
Foraster et al., 2014	Road	Yes	Lnight	Median indoor sound modelled = 27.1 dB(A)	β = 0.72 (95% CI: 0.29, 1.15) per 5 dB(A) increase in Lnight (systolic blood pressure)
Cerebrovascular disease morbidity or mortality					
Recio et al., 2016	All	Yes	Lmax night (0-8h)	Mean (SD) = 63.9 (1.7) Range = 58.7 - 76.3 dB(A)	RR = 1.024 (95% CI 1.001, 1.048) (mortality rate of cerebrovascular disease) per 1 dB(A) increase in Lmax at lag 0, \geq 65 age
Sorensen et al., 2011a	Road	Yes	Lden Linear and categorical analyses performed with seven noise exposure categories (55–58, 58–61, 61–64, 64–67, 67–70, 70–73, and >73 dB) and a		IRR = 1.14 (95% CI: 1.03, 1.25) (ischaemic stroke) per 10 dB increase in Lden

			reference category (≤ 55 dB). 55 dB used as the reference because this is often the limit value for noise in outdoor residential areas, and used exposure categories of 3 dB because this difference is a doubling in acoustical energy.		
			IRRs were calculated for above and below 64.5 years of age, corresponding to the median age at stroke diagnosis among the cases.	Mean exposure < 64.5 years = 57.8 dB(A) Mean exposure \geq 64.5 years = 58.2 dB(A)	IRR = 1.27 (95% CI: 1.13, 1.43), (ischaemic stroke) per 10 dB increase in Lden, \geq 64.5 years of age
Coronary heart disease mortality					
Gan et al., 2011	Road	Yes	Lden Continuous variable to calculate the relative risks of CHD mortality associated with a 10-dB(A) elevation in noise levels and categorical variable to examine exposure-response relations by dividing study subjects into deciles based on noise levels	Mean (SD) = 63.4 (5.0) Range = 33.0 – 90.0 Median (Interquartile Range) = 62.4 (59.8–66.4)	RR = 1.13 (95% CI: 1.06, 1.21) per 10 dB(A) increase in Lden (Coronary Heart Disease mortality when adjusting for PM _{2.5})
					RR = 1.29 (95% CI: 1.11, 1.50) per 10 dB(A) increase in Lden, noise > 70 dB(A) (Coronary Heart Disease mortality when adjusting for PM _{2.5})
					RR = 1.09 (95% CI: 1.01, 1.18) per 10 dB(A) increase in Lden (Coronary Heart Disease mortality when adjusting for PM _{2.5} and black carbon)
					RR = 1.22 (95% CI: 1.04, 1.43) per 10 dB(A) increase in Lden, noise > 70 dB(A) (Coronary Heart Disease mortality when adjusting for

					PM _{2.5} and black carbon)
Cognitive impairment (children)					
Pujol et al., 2013	All	No	The school average outdoor L _{Aeq, day} was selected for analysis.	Mean (SD) = 51.5 (4.5) Range = 38 – 58 dB	$\beta = -0.44$ (95% CI: -0.85, -0.02) (Math test scores) per 10 dB increase in L _{Aeq, day} , ages 8-9 $\beta = -0.44$ (95% CI: -0.85, -0.02) (French test scores) per 10 dB increase in L _{Aeq, day} , ages 8-9
van Kempen et al., 2012	Road	Yes	Leq (7-23h)	Mean (SD) = 48.7 (8.6) Range = 34.0 – 62.0	$\beta = 0.30$ (95% CI: 0.10, 0.50) (Attention scores: SAT, arrow)
	Aircraft			Mean (SD) = 48.6 (7.1) Range = 36.3 – 62.8	$\beta = 0.92$ (95% CI: -0.02, -1.850) (Attention scores: SAT, switch)
Matheson et al., 2010	Road	No	Leq16h	Range = 32 to 71 dB	$\beta = 0.065$ (95% CI: 0.02, 0.11) (conceptual recall) per 5 dB(A) Leq16h increase, 8-10 years of age
Sleep disturbance					
Chum et al, 2015	Road	Used local traffic data (together with noise as a control variable) as a proxy for air pollution (common in other studies)	Self-reported level of noise disturbance	Neither agree or disagree - disturbed by noise at home	OR = 1.13 (95% CI: 1.01, 1.28) (≤ 6 vs. 7 hrs sleep)
				Agree - disturbed by noise at home)	OR = 1.66 (95% CI: 1.39, 1.98) (≤ 6 vs. 7 hrs sleep)
				Strongly agree - disturbed by noise at home	OR = 2.24 (95% CI: 1.77, 2.84) (≤ 6 vs. 7 hrs sleep)
				Disagree -disturbed by noise at home	OR = 1.15 (95% CI: 1.00, 1.31) (any vs. none: sleep problems)
				Neither agree or disagree - disturbed by noise at home	OR = 1.84 (95% CI: 1.65, 2.04) (any vs. none: sleep problems)
				Agree - disturbed by noise at home	OR = 2.74 (95% CI: 2.25, 3.34) (any vs. none: sleep problems)

				Strongly agree - disturbed by noise at home	OR = 3.03 (95% CI: 2.26, 4.07) (any vs. none: sleep problems)
Schreckenberget al., 2010	Aircraft	No	L _{Aeq, 16h}	Sleep quality is worst for residents exposed to 50 to 60 dB(A) at daytime and 50 to 55 dB(A) at night-time than for residents with less or higher noise exposure.	OR = 0.95 (95% CI: 0.93, 0.97) (bad sleep quality)
Annoyance among adults					
Dratva, et al., 2010	Road		Self-Reported Noise Exposures	The degree of noise annoyance was measured by a thermometer scale ranging from 0 (not at all) to 10 (strong and unbearable, Fig. 2) [10, 37–39]. We created a dichotomous noise annoyance variable, defining high noise annoyance as a value of >6 on the original 11-point scale, similar to the dichotomization presented by Li et al. and Conzelmann-Auer et al. [10, 37].	OR = 0.42 (95% CI: 0.24, 0.74) (high annoyance), countryside vs. heavy traffic location
					OR = 1.82 (95% CI: 1.38, 2.39) (high annoyance), moderate vs. light traffic
					OR = 1.46 (95% CI: 1.09, 1.95) (high annoyance), infrequent truck noise vs. no truck noise
					OR = 3.20 (95% CI: 2.17, 4.82) (high annoyance), constant truck noise vs. no truck noise
de Kluzenaar et al., 2011	Road	No	Lden (without quiet side dwelling) <45 defined as reference category	45 – 50 dB(A)	OR = 1.19 (95% CI: 1.03, 1.39)
				45 – 52.5 dB(A)	OR = 1.26 (95% CI: 1.09, 1.44)
				50 – 55 dB(A)	OR = 1.74 (95% CI: 1.47, 2.05)
				52.5 – 57.5 dB(A)	OR = 2.23 (95% CI: 1.87, 2.66)
				55 – 60 dB(A)	OR = 2.75 (95% CI: 2.27, 3.34)
				57.5 – 62.5 dB(A)	OR = 3.83 (95% CI: 3.09, 4.74)
				>60 dB(A)	OR = 6.93 (95% CI: 5.65, 8.50)
			>62.5 dB(A)	OR = 8.00 (95% CI: 6.30, 10.16)	
Lden (with quiet side dwelling)	50 – 55 dB(A)	OR = 1.63 (95% CI: 1.25, 2.13)			




			<45 defined as reference category	52.5 – 57.5 dB(A)	OR = 2.05 (95% CI: 1.67, 2.52)
				55 – 60 dB(A)	OR = 2.38 (95% CI: 1.99, 2.84)
				57.5 – 62.5 dB(A)	OR = 2.96 (95% CI: 2.52, 3.48)
				>60 dB(A)	OR = 5.30 (95% CI: 4.63, 6.07)
				>62.5 dB(A)	OR = 6.54 (95% CI: 5.64, 7.58)
Chronic obstructive pulmonary disease mortality					
Recio et al., 2016	All	Yes	Lmax night (0-8h)	Mean (SD) = 63.9 (1.7) Range = 58.7 - 76.3 dB(A)	RR = 1.04 (95% CI: 1.010, 1.070) (mortality rate of Chronic Obstructive Pulmonary Disease) per 1 dB(A) increase in Lnmax at lag 1, ≥ 65 age
Pneumonia mortality					
Recio et al., 2016	All	Yes	Lmax night (0-8h)	Mean (SD) = 63.9 (1.7) Range = 58.7 - 76.3 dB(A)	RR = 1.03 (95% CI: 1.002, 1.058) (mortality rate of pneumonia) per 1 dB(A) increase in Lnmax at lag 1 when NO2 > 30µg/m ³ , ≥ 65 age
Diabetes mortality					
Recio et al., 2016	All	Yes	Leq night (0-8h)	Mean (SD) = 60.2 (1.0) Range = 56.2 – 69.9 dB(A)	RR = 1.11 (95% CI: 1.040, 1.192) (mortality rate of diabetes) per 1 dB(A) increase in Leqn at lag1, ≥ 65 age
Depression					
Orban, et al., 2016	Road	No	Lden High noise exposure was defined as annual mean 24-hr noise levels > 55 dB(A) (High noise at night was also defined as >50 dB(A) Lnight and in general had similar associations)		RR = 1.29 (95% CI: 1.03, 1.62) (high depressive symptoms), middle-age
Quality of Life scores					

Schreckenberget al., 2010	Aircraft	No	L _{Aeq} , 16h	HQoL with regard to vitality and mental health decreases with increasing aircraft sound level at daytime from <45 dB(A) up to the sound level class 50–55 dB(A), but then increases again for residents exposed to higher sound level classes at daytime.	OR = 0.95 (95% CI: 0.93, 0.97) (vitality)
					OR = 0.96 (95% CI: 0.94, 0.98) (mental health)
Adverse behaviour among children					
Hjortebjerg et al., 2016	Road	Yes	Time-weighted mean exposure from birth to 7 years of age	For time-weighted mean exposure from birth to 7 years of age, estimated that a 10-dB higher exposure to road traffic noise was associated with a 7% increase in abnormal total difficulties scores (95% CI: 1.00, 1.14) (Table 2), which seemed to follow a monotonic exposure–response relationship until 60–65 dB, after which the curve leveled off (Figure 1A).	RR per 10 dB(A) increase (age 7, exposure from birth) = <ul style="list-style-type: none"> • 1.07 (95% CI: 1.00, 1.14) (abnormal vs. normal total difficulties) • 1.05 (95% CI: 1.00, 1.10) ("borderline and abnormal hyperactivity") • 1.09 (95% CI: 1.03, 1.18) ("borderline and abnormal inattention") • 1.05 (95% CI: 0.98, 1.14) ("abnormal conduct problems") • 1.06 (95% CI: 0.99, 1.12) ("peer relationship problems")
	Rail			≤ 60 dB In the cohort as a whole, exposure to railway noise ≤ 60 dB at the time of birth was positively associated with abnormal emotional	OR = 1.11 (95% CI: 1.00, 1.23) (abnormal emotional symptom scores), exposure at time of birth

				symptom scores (OR = 1.11; 95% CI: 1.00, 1.23 compared with unexposed children) but this outcome was not associated with railway noise > 60 dB (OR = 1.01; 95% CI: 0.83, 1.22).	
--	--	--	--	---	--

THIS PAGE INTENTIONALLY LEFT BLANK



 Department Manager	 Director	 CAO
---	---	--

The Corporation of **THE CITY OF NORTH VANCOUVER**
FIRE DEPARTMENT

REPORT

To: Mayor Linda Buchanan and Members of Council

From: Greg Schalk, Public Safety Director and Fire Chief

Subject: COMMUNITY SAFETY ADVISORY COMMITTEE TERMS OF REFERENCE

Date: October 3, 2024 File No: 14-7000-01-0001/2024

The following is a suggested recommendation only. Refer to Council Minutes for adopted resolution.

RECOMMENDATION

PURSUANT to the report of the Public Safety Director and Fire Chief, dated October 3, 2024, entitled “Community Safety Advisory Committee Terms of Reference”:

THAT the Community Safety Advisory Committee Terms of Reference be endorsed;

THAT two Council members be appointed to the Committee at the time of the annual appointment of Council members to advisory bodies;

THAT a copy of this motion be sent to the member organizations identified in the Terms of Reference;

AND THAT staff be directed to include the Community Safety Advisory Committee in the upcoming annual recruitment process in respect of the five (5) Resident member positions.

ATTACHMENT

1. Proposed Terms of Reference – Community Safety Advisory Committee (CityDocs [2504083](#))

SUMMARY

This report provides a recommended Terms of Reference and next steps for the establishment of a Community Safety Advisory Committee in response to the Council resolution on June 17, 2024.

BACKGROUND

On June 17, 2024, the following resolution was unanimously approved by Council:

“PURSUANT to the report of the Public Safety Director and Fire Chief, dated June 5, 2024, entitled “Community Safety Advisory Committee”:

THAT staff be directed to implement a Community Safety Advisory Committee and bring forward Terms of Reference for Council’s consideration;

AND THAT the report of the Public Safety Director and Fire Chief, dated June 5, 2024, entitled “Community Safety Advisory Committee”, remain in the Closed session.”

DISCUSSION

Attachment #1 provides a recommended Terms of Reference for the Community Safety Advisory Committee. The Committee will, among other things, provide a public forum for the citizens of the City and form the foundation for a community-driven and community-focused collaborative approach to addressing public safety concerns in the community, both real and perceived. This committee will also serve as a vehicle to help the City’s public safety officials to better understand the concerns of the community as well as inform the work of the established internal City of North Vancouver Public Safety Committee.

It is proposed that the committee function for one year as a pilot project. After the first full year of meetings, the committee will report back to Council to share its experiences and to consider future membership and structure. The work of the committee will be supported administratively by the Public Safety Department and by the Clerks Division of the Office of the Deputy Chief Administrative Officer.

Next steps will include advertising for new committee members as well as engaging the City partner agencies as outlined in the Terms of Reference. It is hoped that Council will appoint the Resident members no later than January and the new Committee will be able to meet for the first time in February 2025.

FINANCIAL IMPLICATIONS

Any costs associated with the Committee during its inaugural year would be absorbed within existing operating budgets. If the Committee continues to operate after its inaugural year, a new funding request would be submitted as part of the 2026-2030 Financial Plan.

INTER-DEPARTMENTAL IMPLICATIONS

Development of the Community Safety Advisory Committee will include input and align with the work being conducted by the City's internal Public Safety Committee which is composed of representatives from the Fire Department, the RCMP, NSEM, Bylaw Services, Community and Long Range Planning, Engineering, Parks and Environment, Communications, North Vancouver Recreation and Culture Commission, People and Culture, and the City Library.

STRATEGIC PLAN, OCP OR POLICY IMPLICATIONS

The implementation of a Community Safety Advisory Committee aligns with Council's Strategic Plan to be "A City for People" by being a safe and welcoming community.

RESPECTFULLY SUBMITTED:



Greg Schalk
Public Safety Director and Fire Chief



TERMS OF REFERENCE

Community Safety Advisory Committee

PURPOSE

The Community Safety Advisory Committee is being established at the direction of Council in order to advance Council's Priority of being A City for People: an equitable, accessible and healthy community that is inclusive, welcoming and safe.

MANDATE

The Committee will act as an advisory body to Council to share information and facilitate Council decision making on matters of public safety.

Committee Mandate

In its inaugural year, the Committee will work together to develop and test new ways to support the following longer-term goals to

- Help inform the development and implementation of a Community Safety Strategy;
- Increase the community's feelings of safety;
- Improve health and wellness through the reduction of safety risk;
- Improve community resilience through collaboration of community networks and resources;
- Increase the delivery of public education to support safety mindfulness;
- Develop both physical and perceived safe spaces within the community;
- Build community capacity and empower our citizens with life safety education and awareness;
- Support vulnerable populations;
- Develop and foster initiatives that focus on cultivating community and cultural relationships to enhance cross-cultural and other bonds which promote safety within the community; and
- Provide the community with a forum for public input and the ability to contribute to discussions on community safety priorities, initiatives and safety issues.

At the end of the inaugural year, the Committee will report back to Council on its progress in fulfilling the Committee's Mandate.

Decision Making Structure

- Suggestions of the Committee are to be made in the form of recommendations arrived at, preferably through consensus, in the form of resolutions passed by the Committee.
- Recommendations of the Committee are advisory in nature and are not binding on the City.
- These recommendations will be included in publicly available staff reports to Council for consideration, unless there are matters better suited to, or requiring, consideration by the Committee and/or Council *in camera* in accordance with section 90 of the *Community Charter*.

GOVERNANCE**Membership**

The Committee is established as a select committee under the *Community Charter* and will act as an advisory body to Council.

The Committee shall be comprised of up to 11 voting members and will include resident representation from the local community as well as representatives from City partner agencies. The full membership complement will be comprised as follows:

- Two (2) members of Council;
- Five (5) residents, generally representative of the demographic and cultural diversity of the City, one of which is preferred to be a representative of one of the two local First Nations;
- One representative of the City of North Vancouver's Public Safety Division;
- One representative from the City of North Vancouver's RCMP detachment;
- The Squamish Nation Public Safety Director; and
- The Community Safety Manager from Tsleil-Waututh Nation.

Council will appoint the two Council Committee members and the five residents; the City will promote participation in the Committee to diverse and under-represented communities. The four representative members will be appointed by their respective organizations.

One of the members of Council will serve as Chair; the other will serve as Vice-Chair.

Terms of Appointment

If the Committee is to remain active after the inaugural year, Council may appoint or reappoint the Council members and Resident members for a second year; thereafter, Council member terms shall be for one year and Resident member terms shall be for two years with an opportunity to be renewed no more than once for a maximum Resident membership of four consecutive years. Terms will commence on February 1 and will end on January 31.

Attendance

Members are expected to:

- Attend all scheduled meetings and participate fully;
- Review distributed material prior to each meeting;
- Advise the Committee Clerk of an anticipated absence prior to a scheduled meeting, to help maintain quorum; and
- For resignation prior to the end of a term, submit a written notice of resignation to the Committee Chair, with a copy to the Committee Clerk.

When the Chair is absent from a meeting, the Vice-Chair will preside.

Community Safety Advisory Committee

A representative member from one of the City's partner agencies may designate an alternate to attend a meeting in their place, if required. For clarification, this includes the following:

- The representative of the City of North Vancouver's Public Safety Division;
- The representative from the City of North Vancouver's RCMP detachment;
- The Squamish Nation Public Safety Director; and
- The Community Safety Manager from Tsleil-Waututh Nation.

A resident member is not permitted to designate an alternate to attend a meeting in their place.

Any representative member who, without an excused absence, fails to attend three (3) consecutive meetings will have their membership reviewed by the Chair. A request for an excused absence must be submitted to the Chair at least 24 hours prior to a scheduled meeting of the Committee and may be reviewed by the Committee at the discretion of the Chair.

MEETINGS**Rules of Procedure**

Meetings shall be held in accordance with the *Community Charter* and "Council Procedure Bylaw 2015, No. 8500", as amended. The most recent version of the Advisory Body Procedures applicable to all advisory bodies of the City may also be referenced for guidance in respect of member responsibilities, conduct, public attendance, closed meetings and more. To the extent there are any gaps in procedure, the most recent edition of Robert's Rules of Order may be referenced.

Schedule

Meetings will be held on a bi-monthly basis or as required at the call of the Chair. No meetings are expected to be held in July or August. Meetings will typically be held in person at City Hall, 141 West 14th Street, North Vancouver, or at another location as determined by the Chair.

Resource Support

The City will designate a Committee Clerk to provide support for organizing meeting logistics, preparing and distributing agendas and notices, preparing meeting minutes, and coordinating food services for Committee meetings.

The Committee Clerk will distribute meeting agendas the week prior to the meeting. Meeting minutes will be recorded, including key decisions, highlights of discussion points, and an action log.

Public Safety departmental staff will provide the Committee with administrative support for reports, presentations, correspondence and other information to be gathered, distributed, reviewed and considered by the Committee.

Quorum

A majority of the voting members is required to be present in order to hold a meeting, and must include at least one of the Council members appointed.

If quorum is not present within 15 minutes of the scheduled meeting start time, the Committee Clerk will:

- a) Declare the meeting cancelled due to quorum not being reached;
- b) Record the time and names of the members present and those absent; and
- c) Place agenda items from the cancelled meeting onto the agenda for the next scheduled meeting.

Decisions

As an advisory body, the Committee will use consensus decision-making models to engender internal support for its recommendations but, in the event of a recommendation, the resolution will require a mover, a seconder, and a majority vote to be considered carried.

All decisions of the Committee, including dissenting votes, will be recorded in the minutes.

Communications

Communication to the media, or responses to media queries, shall be made only by the Chair.

Remuneration

Members are unpaid and serve on a voluntary basis. Any reasonable expense incurred in carrying out business of the Committee may be claimed and will be reimbursed at the discretion of the Chief Financial Officer in accordance with approved expense policies.

Note: Mileage is not deemed a reasonable expense.

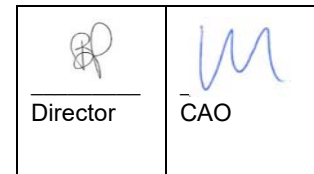
CODE OF CONDUCT

The City of North Vancouver expects all members to adhere to its core corporate values of behavioural excellence, service excellence, leadership, accountability, communication, value and teamwork.

All members must follow the Code of Conduct set out in "Council Procedure Bylaw 2015, No. 8500" during Committee meetings. Members are also governed by the City's Respectful Communications Policy, its Respectful Workplace Policy and its Social Media Policy, amongst other documents guiding member responsibilities including expectations around confidentiality and conflict of interest.

Adopted on <>

THIS PAGE INTENTIONALLY LEFT BLANK



The Corporation of **THE CITY OF NORTH VANCOUVER**
OFFICE OF THE DEPUTY CHIEF ADMINISTRATIVE OFFICER

REPORT

To: Mayor Linda Buchanan and Members of Council

From: Peter DeJong, Acting Corporate Officer

Subject: NORTH VANCOUVER MUSEUM AND ARCHIVES COMMISSION
AGREEMENT BYLAW AMENDMENT (DEACCESSIONS)

Date: October 2, 2024 File No: 01-0360-20-0073/2024

The following is a suggested recommendation only. Refer to Council Minutes for adopted resolution.

RECOMMENDATION

PURSUANT to the report of the Acting Corporate Officer, dated October 2, 2024, entitled “North Vancouver Museum and Archives Commission Agreement Bylaw Amendment (Deaccessions)”:

THAT the report to and resolution of the North Vancouver Museum and Archives Commission (the “Commission”), considered by the Commission September 26, 2024, be received by Council for information and consideration;

THAT the request of the Commission for amendment of the Commission Agreement and Bylaw to delegate approval of deaccessions to the Commission be approved;

THAT the Mayor and Corporate Officer be authorized to execute an amended Commission Agreement, substantially in the form recommended in the Commission’s resolution of September 26, 2024;

AND THAT “North Vancouver Museum and Archives Commission Agreement Bylaw, 1995, No. 6719, Amendment Bylaw, 2024, No. 9063”, be considered for readings pending execution of the amended Commission Agreement prior to adoption.

ATTACHMENTS

1. Report on the Deaccession Process from Archivist, R. Pasch, and Curator, A. Terron, North Vancouver Museum and Archives (MONOVA) dated September 3, 2024 (CityDocs [2579198](#))
2. Resolution of the Commission as moved by Commissioner D. Bell, seconded by Commissioner J. Back and approved unanimously by the Commission September 26, 2024 (CityDocs [2579202](#))
3. Copy of “North Vancouver Museum and Archives Commission Agreement Bylaw, 1995, No. 6719”, consolidated as of March 1, 1999 (CityDocs Pt.1 [2160831](#) Pt.2 [2325084](#))
4. Proposed “North Vancouver Museum and Archives Commission Agreement Bylaw, 1995, No. 6719, Amendment Bylaw, 2024, No. 9063” (CityDocs [2562332](#))

SUMMARY

The Commission wishes to have the authority for deaccessions delegated to them while maintaining the current arrangements for any financial benefit to accrue to the owner(s) of the deaccessed materials.

BACKGROUND

The North Vancouver Museum and Archives (MONOVA) is operated through a Commission under a joint Agreement with the District of North Vancouver (DNV). Each municipality appoints five (5) persons to the Commission, including one (1) Council member and four (4) residents at large, and an eleventh (11th) person is appointed by the Friends of the North Vancouver Museum Society. Each party has attached the Agreement to an internal bylaw jointly establishing the Commission. The City’s bylaw, as it presently stands, is Attachment 3 to this report.

DISCUSSION

In the operations of a museum, a “deaccession” is a disposition of materials in the possession of the institution. Under the City’s Agreement with the DNV, materials in the possession of MONOVA are owned by one municipality or the other, or they are owned jointly. Under the Agreement, any monies received from such disposition are retained by the Commission to acquire appropriate new material for the collection on behalf of the owner of the deaccessed material. The report of the MONOVA curator (Attachment 1) provides greater detail as to the process for deaccession.

Presently, recommendations for deaccession are brought to the owner(s) of the material for approval. Per Attachment 2, the Commission wishes to have the authority for deaccessions delegated to them while maintaining the current arrangements for any financial benefit to accrue to the owner(s) of the deaccessed materials. Provision has also been made for municipally generated materials to be returned, if requested, to a municipal owner upon deaccession. The tracked changes are shown below and the amendment bylaw is Attachment 4 to this report.

Deaccession

D.15. A recommendation for the deaccession of any material in the collection shall be referred by the ~~Commission~~ Director to the ~~owner of the material~~ Commission for approval, and, if approved by the Commission, any monies received from such deaccession shall be retained by the Commission to acquire appropriate material for the collection on behalf of the owner of the deaccessioned material. For clarity, deaccessions apply to materials in the collections held by both the museum and the archives and, if requested by a municipal owner, municipally generated materials will be returned to the municipality upon deaccession.

This would enable MONOVA to renew its collection and manage its museum and archives operations more efficiently while still protecting the interests of the parties to which it is ultimately responsible.

FINANCIAL IMPLICATIONS

There are no financial implications for the City or the District. Any monies received from deaccession will still be to the credit of the party who owned the deaccessioned materials.

INTER-DEPARTMENTAL IMPLICATIONS

MONOVA is seeking concurrent approval from both District and City Councils. District staff have indicated a report recommending approval of the request is being considered.

STRATEGIC PLAN, OCP OR POLICY IMPLICATIONS

Enabling MONOVA to more efficiently renew the Museum and Archives collection supports a Vibrant City where dynamic public spaces and places provide opportunities for connection and enable residents to engage with their community, and celebrate their culture and history.

RESPECTFULLY SUBMITTED:



Peter DeJong
Acting Corporate Officer

DEACCESSION PROCESS

September 3, 2024

By MONOVA Archivist Rebecca Pasch and MONOVA Curator Andrea Terron

What is it:

Deaccessioning refers to the documented and approved removal of materials from the accessioned collections.

Why do it:

It is necessary to deaccession materials from the collections because of new goals and changed priorities of the North Vancouver Museum and Archives Commission (NVMAC). New acquisitions of stronger examples of materials may cause redundancies and require us to deaccession what we had previously taken in.

From the Collection Policy

Deaccessions

A record of the circumstances and conditions of the deaccession of every item is retained as part of the institution's collection records. Materials are disposed of according to their nature and the circumstance in one of the following ways:

1. Transfer of ownership, outright or as part of an exchange, to another public institution or organisation.
2. Transfer of ownership outright to the NVMA Education Collection.
3. Destruction. Select the method; if necessary, seek expert advice, ensure the method does not pose a risk to staff or the public. Ensure that destruction takes place and reuse/recycle as many component parts as possible. Document the item and the process.

No member of the staff of the Museum and Archives, nor any member of the Museum and Archives Commission, nor any member of the Councils of The Corporation of the City of North Vancouver and The Corporation of the District of North Vancouver, nor Employees of either the City or the District of North Vancouver who are involved in the deaccessioning and/or disposal of items may buy or receive any materials deaccessioned from the collections. The purpose of this policy is to eliminate actual or apparent conflict of interest in the deaccessioning process.

From the Bylaws (6789DNV and 6719CNV)

Deaccession D.15

A recommendation for the deaccession of any material in the collection shall be referred by the Commission to the owner of the material for approval, and, if approved, any monies received from such deaccession shall be retained by the Commission to acquire

appropriate material for the collection on behalf of the owner of the deaccessioned material.

Proposed Language Change to Deaccession D.15 (September 2024)

D.15 A recommendation for the deaccession of any material in the collection shall be referred by the ~~Commission Museum-Director to the owner of the material~~ **Commission** for approval and, if approved **by the Commission**, any monies received from such deaccession shall be retained by the Commission to acquire appropriate material for the collection on behalf of the owner of the deaccessioned material. **For clarity, deaccessions apply to materials in the collections held by both the museum and archives and, if requested by a municipal owner, such municipally generated materials will be returned to the municipality upon deaccession.**

Current process

The Director presents a list of records to be deaccessioned to the NVMAC and with NVMAC's approval, the Director then takes that list and seeks permission to deaccession from the DNV and CNV Councils. With this language change the Director will present a list of records to be deaccessioned and seek permission to deaccession from the NVMAC.

In the past few years, the NVMA issued many reports to reduce the collection in preparation of building the museum at The Shipyards. The current team follows the Collections Policy for any records that it receives from the public and from the CNV and DNV. MONOVA is not accessioning materials that do not match our collecting criteria.

With the inherited system and collections, the Archivist and Curator are locating material that no longer meets that criteria and they are implementing efficiencies and utilizing the space and staff capacity to rearrange and protect the materials that they are responsible for. This means that there will be deaccessions for legacy materials that do not comply with the collection policy. After this work is done, deaccessions will no longer be a regular occurrence.

Criteria for collecting and deaccessioning

The following criteria assist in determining those materials to be brought into the NVMA collections, if they are found in the collection and they do not meet the requirements, they will be deaccessioned. At any time, the staff may refuse materials considered to be inappropriate for the collections.

- Relationship to item(s) already in the collections.
- Relationship to a subject area, person(s), organisation, or event that is relevant to North Vancouver and the North Vancouver story.
- Rarity; historical, artistic, cultural, scientific, or technical significance.
- Completeness and integrity of records and documentation.

- Practical value of the proposed acquisition for exhibition, study, or research, or for educational programs.
- Availability of storage and exhibition space.
- Condition and cost, including the potential costs of maintenance and conservation.

At the Archives:

There is a threshold for considering a process deaccessioning. The process of removing transitory records is considered weeding, rather than deaccessioning. If the Archives is keeping the bulk of the records from a single donor, we note in the accession file that we have weeded out the transitory and non-North Vancouver records and either sent them back to the donor (or destroyed them, if the donor signed off on that) and no formal deaccession process would be required.

At the Museum:

Deaccessions are part of Collection Management procedures. It is the role of the Curator to undertake a full account of the collections, which implies making decisions to dispose as part of an overall strategy/policy within the institution. Several of these considerations are proper storage, relevance, if it has a chance to be exhibited and if it can be accessible to the public.

Examples:

At the Archives: Accession record 2017-024

Records pertaining to a house renovation. Gift from a member of the public. Comprised of transitory records including paint chips, multiple receipts and to do lists. No archival value. The house still exists, there are privacy and safety concerns.

Reasoning: It does not meet the criteria. It is from the North Shore but does not add any practical value for study. Also, it has no historical value; transitory records are not rare.

At the Museum: Accession record 2003.18.1

Harbottle pickup truck. Gift from a member of the public, fully restored by donor prior to donation. Diamond T, Model 201 C PU. Serial 201C550. Museum Use: Driven by Ian Steward in Canada Day parade in 2005 and 2006. Won 1st prize award for 2005 parade; and Outstanding Entry award for 2006 parade. Ribbons are in accession file.
Location at Rice Lake Storage.

Reasoning: In this case the concern is over conservation and space. We do not always have the capacity and access to the storage at Rice Lake. The truck is covered by a tarp, and it is missing the gas cap, we have not turned it on in a few years and the mechanical expenses are high. In the current themes and stories at the permanent exhibition, the museum does not have the budget for the upkeep and cannot maintain it to its proper valuable condition. The recommendation is to transfer to another museum with the capacity to protect it and to be exhibited.

**PROPOSED SPECIAL RESOLUTION OF THE
NORTH VANCOUVER MUSEUM AND ARCHIVES COMMISSION**

PREAMBLE:

The North Vancouver Museum and Archives Commission ("NVMAC") intends to make the process of deaccessioning material in the museum and archives collection more efficient when deemed appropriate or necessary by the Museum Director. The NVMAC recommends that the existing Bylaws of the North Vancouver Museum & Archives be amended so that deaccessioning approval may be referred by the Museum Director to the NVMAC rather than going to Council for approval.

BE IT RESOLVED:

THAT the North Vancouver Museum and Archives Commission recommends the following amendment to section D.15 of Bylaw no. 6719:

Deaccession

D.15 A recommendation for the deaccession of any material in the collection shall be referred by the ~~Commission~~ Museum Director to the ~~owner of the material~~ Commission for approval and, if approved by the Commission, any monies received from such deaccession shall be retained by the Commission to acquire appropriate material for the collection on behalf of the owner of the deaccessioned material. For clarity, deaccessions apply to materials in the collections held by both the museum and archives and, if requested by a municipal owner, such municipally generated materials will be returned to the municipality upon deaccession.



THE CORPORATION OF THE CITY OF NORTH VANCOUVER

**“North Vancouver Museum and Archives Commission
Agreement Bylaw, 1995, No. 6719”**

CONSOLIDATED FOR CONVENIENCE – MARCH 1, 1999

Amendment #	Adoption Date	Subject
7103	March 1, 1999	Increase of Commissioners

THE CORPORATION OF THE CITY OF NORTH VANCOUVER

BYLAW NO. 6719

A Bylaw to establish a joint civic properties commission and to authorize entering into an Agreement with The Corporation of the District of North Vancouver for the joint operation and the sharing of costs of the commission pursuant to sections 237 and 688 of the *Municipal Act (RSBC 1996, c.323)*. [Bylaw 7103, March 1, 1999]

The Council of The Corporation of the City of North Vancouver, in open meeting assembled, enacts as follows:

Title

1. This Bylaw shall be known and cited for all purposes as **“North Vancouver Museum and Archives Commission Agreement Bylaw, 1995, No. 6719”**.

Establishment of Commission

2. The North Vancouver Museum and Archives Commission is established jointly with The Corporation of the District of North Vancouver and shall be operated in accordance with the agreement authorized in section 3.

Authorization to enter into Agreement

3. The Council authorizes The Corporation of the City of North Vancouver to enter into an Agreement with The Corporation of the District of North Vancouver to establish a Joint Civic Properties Commission as set out in the Agreement entitled “North Vancouver Museum and Archives Commission Agreement”, dated August 28th, 1995, attached to this bylaw.

Execution of Documents

4. The Mayor and Clerk are authorized to execute any documents required to give effect to the intent of this bylaw.

READ a first time by the Council on the 18th day of September, 1995.

READ a second time by the Council on the 18th day of September, 1995.

READ a third time on the 18th day of September, 1995.

RECEIVED the approval of the Minister of Municipal Affairs on the 9th day of November, 1995.

RECONSIDERED and finally adopted by two-thirds majority of all Members of Council, signed by the Mayor and City Clerk, and sealed with the Corporate Seal on the 20th day of November, 1995.

“John E. Loucks”

MAYOR

“Bruce A. Hawkshaw”

CITY CLERK

NORTH VANCOUVER MUSEUM AND ARCHIVES COMMISSION AGREEMENT

IN THIS AGREEMENT made the 4th day of December, 1995.

BETWEEN:

The Corporation of the City of North Vancouver

141 West 14th Street in the City of North Vancouver,
British Columbia
(herein called the "City")

AND:

The Corporation of the District of North Vancouver

355 West Queens Road in the District of North Vancouver,
British Columbia
(herein called the "District")

FOR THE PURPOSE OF

- I. establishing a joint civic properties commission to serve as sole custodian of the City and District cultural, archival and museum collections;
- II. mandating the commission to facilitate, encourage and, provide a broad array of museum and archives services within the City and the District and to incur liabilities for such services within the amounts included for it in the annual budget of each municipality; and
- III. sharing in the annual subsidy to the Commission on the basis of statistics collected by the Commission of services provided to the City and District; and

THE DISTRICT AND THE CITY AGREE

1. to establish a joint civic properties commission known as the North Vancouver Museum and Archives Commission, herein called the "Commission", which
 - (a) is comprised of eleven members, herein called "Commissioners" appointed as set out in section B.1 of Attachment B; *[Bylaw 7103, March 1 1999]*
 - (b) is regulated in accordance with Attachment B,
 - (c) shall organize and conduct a broad array of cultural, museum and archives services;
 - (d) may incur liabilities for the purposes of (c) within the amounts included for it in the annual and capital budgets of the City and the District in accordance with Attachment D; and
 - (e) has possession of, shall manage, and shall maintain in good and safe condition the following property and facilities, herein referred to as "Facilities":

- (i) the portion of Presentation House set aside for or occupied by the North Vancouver Museum and Archives;
- (ii) the Pacific Great Eastern Station located at the foot of Lonsdale Avenue; *[Bylaw 7103, March 1, 1999]*
- (iii) any leased space occupied by the title North Vancouver Museum and Archives; and

including any plant, equipment, fixtures, fittings, off-street parking areas, walkways and landscaped grounds associated with a Facility;

2. to provide funding for the museum and archives services
 - (a) as approved by the Councils of the City and District in the Commission's Annual Operating Budget, as set out in Attachment D; and
 - (b) as approved as approved by the Councils of the City and the District in the Commission's Annual Capital Budget as set out in Attachment D;
3. that, before a museum and archives facility intended to be added to section (1)(e) of this Agreement is developed,
 - (a) first, the facility concept shall be prepared by the Commission and presented to the City and the District;
 - (b) if the facility and the timing of the development of the facility are acceptable to the City and the District, the City and the District shall then make provision in their respective capital budgets in the appropriate years for the costs of the capital project;
 - (c) then the facility shall be constructed and equipped under the management and supervision of the City and the District;
4. that the attachments to this Agreement are part of the Agreement;
5. that should be one party desire to change this agreement, from time to time, to meet newly identified or newly arising requirements, upon written request to the other party, the parties agree to enter into good faith discussions of requested changes to this bylaw with a view to reaching agreements on required amendments to this agreement, and to amend the North Vancouver Museum and Archives Commission Bylaw accordingly;
6. that any dispute arising out of the interpretation or application of this Agreement shall be referred
 - (a) in the first instance, to the Chief Administrative Officers to resolve the dispute, and, if they do so, their decision is final and binding upon the parties;
 - (b) if the Chief Administrative Officers are unable to resolve the dispute, to the Councils of the City and the District in a joint meeting to resolve the dispute and, if they do so by majority vote of each Council, their decision is final and binding upon the parties; and

(c) if the Councils are unable to resolve the dispute, to the Inspector of Municipalities for final determination; and

7. that this Agreement comes into effect on January 1, 1996 and continues in effect until terminated by either party upon one year's written notice to the other;

AND the parties execute this Agreement on the day and year above mentioned.

The Corporate Seal of THE CORPORATION OF THE CITY OF NORTH VANCOUVER was hereunto affixed in the presence of:

"John E. Loucks"

MAYOR

"Bruce A. Hawkshaw"

CITY CLERK

The Corporate Seal of THE CORPORATION OF THE DISTRICT OF NORTH VANCOUVER was hereunto affixed in the presence of:

MAYOR

MUNICIPAL CLERK

ATTACHMENT A

THE MANDATE

An understanding and appreciation of our social, cultural, artistic, political and economic history is an essential and necessary component of the fabric of our community life. The Councils of the City, and District, therefore, mandate the Commission to develop and maintain an appropriate level of museum and archives services, in accordance with commonly accepted standards, to meet the needs and interests of public bodies, corporations and organizations doing business in North Vancouver and private citizens living in the two municipalities.

MEETING THE MANDATE

In fulfillment of the Mandate, the Commission shall strive to provide services to the people of North Vancouver in accord with the following:

The Commission shall maintain and develop collections that reflect the social, political and economic history of North Vancouver. It is charged with the responsibility of seeing to the safe-keeping of all materials entrusted to its care and shall manage the collections in accordance with a Collections Policy amended as necessary from time to time and approved by both Councils.

The Commission shall provide access to archival resources and museum exhibits and programs for periods of time each week and at hours of the day that may best serve the interests of the citizens of North Vancouver.

The Commission shall be aware of and, whenever practical, work with other public bodies or private citizens involved or interested in the provision of museum and archives services, to harmonize its efforts with the plans and programs of other such providers so that all plans and programs can complement each other.

The Commission shall be aware of the changing needs of the community, and of the practice of museum and archives work. Both short and long term plans shall be developed to accommodate these changes and shall be submitted to the Councils of the City and District for approval within the context of ongoing annual operating and capital budgets.

ATTACHMENT B

THE COMMISSION

Appointments to Commission

B.1 Appointments shall be made to the Commission as follows:

- (a) The City shall appoint five persons to serve as Commissioners, one of whom may be a member of the Council for a one-year term and the others appointed at large;
- (b) The District shall appoint five persons to serve as Commissioners, one of whom may be a member of the Council for one-year term and the others appointed at large;
- (c) The Friends of the North Vancouver Museum Society may appoint a member of the Society to serve as a Commissioner.

Initially, Commission members appointed at-large, or by Friends of the North Vancouver Museum Society, may be appointed for either a one, two or three-year term.

[Bylaw 7103, March 1, 1999]

Term of Office

B.2 Except as otherwise provided in section B.1, the term of a Commissioner is three years.

Commencement of Term

B.3 The term of a Commissioner commences,

- (a) in the case of a one-year term, on the day of the regular January meeting of the Commission;
- (b) in the case of a two-year term, on the day of the regular January meeting of the Commission held in an even numbered year; and
- (c) in the case of a three-year term, on the day of the regular January meeting of the Commission held is a year in which a local general election is held.

Qualifications for At Large Appointments

B.4 A person who is

- (a) 18 years of age or older;
- (b) is not serving a sixth consecutive year as a Commissioner may be appointed a Commissioner at large;
- (c) has one or more of the following qualifications;
 - (i) knowledgeable in the field of history;
 - (ii) interested in archivist work;
 - (iii) interested in promoting appreciation of the history of the City and the District;
 - (iv) interested in promoting appreciation of the cultural and artistic works and history in the City and the District.

Vacancy

- B.5 A vacancy created by death, resignation, loss of office or of membership in the body that made the appointment shall be reported by the Chair of the commission to the body making the original appointment and that body shall appoint a replacement.

Absenteeism

- B.6 A Commissioner who, without leave of the Commission, is absent from three consecutive regular meetings of the Commission is deemed to have resigned effective at the end of the third such meeting.

Rules of Procedure

- B.7 The Commission shall observe the following rules of procedure in the calling of and conduct in its meetings:

Election of Chair and Vice-Chair

- (a) At the regular January meeting of the Commission the first order of business is the selection of a Chair, during which the Director of Museum and Archives shall preside, and the selection of a Vice-Chair.

Vice-Chair

- (b) In the absence or incapacity of the Chair, the Vice-Chair has all the powers and is subject to the same rules as the Chair.

Regular Meetings

- (c) The Commission shall meet regularly and not less than nine times a year.

Special Meetings

- (d) The Commission may meet for a special meeting at the call of the Chair or, in the absence of the Chair and the Vice-Chair, at the call of three Commissioners.

Notice

- (e) Notice of a regular meeting, together with the agenda for the meeting, shall be delivered to each Commissioner with copies to the Clerk of each municipality at least three days prior to the meeting.

Quorum

- (f) A quorum of the Commission is six Commissioners.

Conduct of Meeting

- (g) The Chair shall preside at all meetings of the Commission and shall be guided by the following rules:
- (i) The order of business shall be as set out in the agenda, except that an item may be added to or withdrawn from the agenda by the Chair, a majority vote of the Commissioners present being required if a Commissioner objects.
 - (ii) All decisions of the Commission shall be made by resolution and by a majority vote of all Commissioners present; on a tie vote, the question shall be negated.
 - (iii) The Commission shall meet in public, except for the following matters which shall be considered in camera:
 - a) wage and salary negotiations and other personnel matters; and

- b) matters which are in or have potential for litigation, disputed claims, and matters involving legal agreements or contracts where legal advice is required.
- (iv) When a matter is no longer confidential, the Chair shall announce at the earliest Commission meeting any decisions reached in an in camera meeting on the matter.
- (v) The Chair shall maintain order by following these rules and any supplementary rules adopted by the Commission.

Supplementary Rules

- (h) The Commission may adopt any supplementary rules of procedure that do not conflict with those contained in (f).

Minutes

- (i) Minutes shall be taken of all meetings of the Commission and shall
 - (i) record the mover and seconder of, and the voting on all resolutions;
 - (ii) be signed by the Chair as a true record of the decisions of the Commission, and by the person taking the minutes;
 - (iii) except in the case of in camera minutes, be distributed before the next regular meeting to the Commissioners to the Commission Auditors, in appropriate numbers to the City Clerk and the District's Director of Legislative Services for distribution to members of Councils of the City and the District to others as deemed appropriate by the respective Chief Administrative Officers and, after correction of the minutes, to members of the public in accordance with current Commission policy;
 - (iv) in the case of in camera minutes, be distributed before the next regular meeting to the Commissioners; and
 - (v) be subject to correction at the next meeting of the Commission.

Standing Committees

- (j) The Chair may appoint standing committees comprised of Commissioners, who shall serve at the pleasure of the Commission, and upon which the Chair and Director of Museum and Archives, or the Director's delegate, may sit as non-voting members; and minutes of the meetings of the committees shall be kept and copies sent to the Commissioners.

Reports to Council

- B.8 The Commission shall report to the Councils of the City and of the District on any matter within the mandate of the Commission when requested to do so by either Council, or when the Commission considers it necessary.

Advisory Committees to the Commission

- B.9 The Commission shall, as funding permits, provide staff support to facilitate the functioning of those advisory committees to the Commission that represent community groups actively providing all services to the residents of North Vancouver Museum and Archives.

ATTACHMENT C

MUSEUM AND ARCHIVES SERVICES

Duties of Commission

- C.1 The Commission has the duty to plan for, appropriately develop, and conduct, within the approved funding, comprehensive and balanced museum and archives programs for people of all ages and differing intents in the City and the District, and for that purpose may
- (a) use the Facilities;
 - (b) establish committees of users and other persons on any matters within the mandate of the Commission;
 - (c) make recommendations to the Councils with respect to the need for additional facilities or for changes to existing Facilities, or policies, or in relation to the development of policies and Facilities to meet museum and archives needs affecting both the City and the District;
 - (d) implement polies under which the museum and archives services shall operate and rules under which the Facilities shall be used for museum and archives purposes or other appropriate community needs.

Director of Museum and Archives

- C.2 The Commission shall employ a person in the capacity of Director of Museum and Archives, herein called the Director, who shall
- (a) be responsible for managing the Museum and Archives programs of the Commission and for the implementation of the Commission's policies and rules, and may make recommendations respecting any matter contained in section C.1;
 - (b) have authority to hire within the approved complement and budget, and to direct, discipline and discharge such employees as necessary for the effective and efficient administration of the Commission, and for the proper operation, maintenance and supervision of the Facilities in the possession of the Commission, and the programs related thereto.

ATTACHMENT D

MUSEUM AND ARCHIVES COMMISSION FINANCES

Operating Budget

D.1 The Commission shall prepare a draft operating budget for the upcoming year, setting out in detail the operating funds required by the Commission for the carrying out of its mandate, and a summary of the budget to show the anticipated contributions from the operating budgets of the City and of the District such contribution to be calculated by subtracting the estimated revenues, including funds received from all other sources, from the estimated expenditures and apportioning the difference as follows:

- (a) 50% to City and;
- (b) 50% to the District.

Transitional

D.1.1 The cost sharing of the operating budget shall be phased into the level provided in D.1 over 4 years as follows:

YEAR	CITY % Share	DISTRICT % Share
One	87.5	12.5
Two	75.0	25.0
Three	62.5	37.5
Four	50.0	50.0

Capital Budget

D.2 The Commission shall prepare a draft capital budget for the upcoming year, setting out in detail capital funds required by the Commission for the carrying out of its mandate in the following manner:

- (a) the estimated *capital expenditures* for any new facility or major addition to an existing Facility with separate amounts for
 - (i) design and management,
 - (ii) construction, and
 - (iii) fittings, furnishings and equipment,

as a part of the municipality's capital budget; and an estimate of annual operating costs and revenues and the net annual contribution required from each municipality;

- (b) the estimated *capital expenditures* for the acquisition of new equipment for museum and archives activities and to make internal alterations and additions to a facility as part of the owner municipality's capital budget, except where the estimated expenditure cannot be attributed to a Facility, in which case the expenditures are apportioned as set out in D.1;

and a 5 year capital budget in a format acceptable to the Treasurers of the City and of the District and for the purposes of this section, *capital expenditures* means expenditures of more than \$1000 on an asset with a useful life of greater than one year or for the purpose of appreciably extending the useful life of an existing asset.

Budget Submissions

- D.3 The operating budget and the capital budget shall be prepared and submitted in a manner that,
- (a) for the portions of the budget that apply to the City, meets the budget preparation requirements of the Treasurer of the City, and
 - (b) for the portions of the budget that apply to the District, meets the budget preparation requirements of the Treasurer of the District.

Budget Adoptions

- D.4 Within 30 days of the approval of the Commissioner's operating budget by the City and the District, the Commission shall adjust its draft annual budget and the capital budget, as necessary accordingly, and shall then adopt the resultant budgets.

Fees and Charges

- D.5 The Commission may establish fees for the use of museum and archives services.

Use of Funds

- D.6 The Commission may expend funds as required during the budget year for the purposes and up to the amounts set out in the operating budget and the capital budget as adopted under section D.4, and shall not incur an indebtedness or a liability to make any expenditure other than as provided for in the budgets, except that
- (a) funds may be otherwise expended by the Commission with the prior approval of both Councils;
 - (b) funds may be re-allocated by the Commission within each of the operating budget allocations; and
 - (c) when an expenditure is required for the emergency replacement of a capital item essential for the continual operation of all or part of a facility, the chair together with the Director may authorize an expenditure from the Emergency Capital Replacement Fund established pursuant to section 2(b) of this agreement; and the Director shall provide each treasurer with a listing of expenditures from the fund at the ends of each fiscal year.

Maintenance of Records

- D.7 The Treasurer of the City shall
- (a) exercise the duties and powers of the Treasurer as provided in the *Municipal Act* (RSBC 1996, c.323), in dealing with the Funds of the Commission; [*Bylaw 7103, March 1, 1999*]
 - (b) ensure that accounting and payroll records of the Commission are properly prepared and maintained, such records to include payroll, accounts payable, cash receipts and disbursements, accounts receivable, general ledger, subsidiary cost ledger, financial statements, and reports and supporting documents to the foregoing, such records being deemed to be requested by the Commission;
 - (c) provide, when possible, any additional financial systems that have been requested

by the Commission;

- (d) direct, to the extent necessary to ensure that the systems and procedures established for financial controls are in effect and are in accordance with the *Municipal Act*, the Manager of Administrative Services and the accounting staff employed by the Commission; and
- (e) ensure that the statistics collected by the Commission of City and District users of the Facilities would permit an equitable revision of the sharing ratio as and when necessary.

Reimbursement of City

- D.8 The Commission shall reimburse the City for the financial services provided, based on a detailed estimate from the City of the actual costs including overhead.

Examination of Records

- D.9 The Treasurer of the District may conduct audits or examinations to see that adequate financial controls and checks are being maintained by the Commission.

Budget Year

- D.10 The budget year of the Commission is the calendar year.

Execution of Documents

- D.11 The Chair or, in the absence of the Chair, two Commissioners are authorized together with the Director to execute any agreements or contracts in behalf of the Commission.

Insurance

- D.12 The Commission shall arrange for insurance coverage for any exposures of consequence, including

- (a) at a level recommended by the Municipal Insurance Association that is acceptable to the treasurer for the City and the District, but in any case not less than \$2,000,000 per event of public liability in respect of programs operated or sponsored by the Commission, and
- (b) replacement cost and property damage incurred on the physical plant and equipment, vehicles, goods, chattels, monies and securities in the care, custody and control of the Commission;

and copies of the insurance policies or binders shall be sent to the Treasurers of the City and the District.

Remuneration and Reimbursement

- D.13 Commissioners and Members of Committees shall serve without remuneration, it being understood that

- (a) the admission of Commissioners to Commission programs or Facilities at a rate less than that paid by the general public shall not be considered to be a form of remuneration; and
- (b) by resolution of the Commission, a Commissioner or member of a Committee may be reimbursed for expenses properly incurred on behalf of or in respect to

the business of the commission or Committee.

Ownership of the Collection

D.14 Ownership of the Collection is as follows:

- (a) All material in the possession of the North Vancouver Museum and Archives at 31 December 1995 is owned by the City.
- (b) After 31 December 1995, all materials donated or transferred to the museum and archives
 - (i) by the City is owned by the city;
 - (ii) by the District is owned by the District;
 - (iii) by any other source is owned in accordance with the decision of the Commission as to whether the material is reflective of the history of the City, in which case it is owned by the City; reflective of the history of the District, in which case it is owned by the District; or reflective of the history of both the City and the District or is of general interest, in which case it is owned equally by the City and the District

Deaccession

D.15 A recommendation for the deaccession of any material in the collection shall be referred by the Commission to the owner of the material for approval, and, if approved, any monies received from such deaccession shall be retained by the Commission to acquire appropriate material for the collection on behalf of the owner of the deaccessed material.

Distribution of Collection at Termination

D.16 On the termination of the North Vancouver Museum and Archives all items in the collection shall be returned to the owner. In the case of items jointly owned an appraisal shall be made by a qualified appraiser acceptable to both parties. The City and the District will compensate each other for items transferred to them by mutual consent. In the case of the sale of any items jointly owned the proceeds shall be split on a 50-50 basis between the two municipalities.

Ownership of Capital Assets (excluding the Collections)

D.17 All capital assets acquired by the Commission from funds contributed pursuant to the capital budget

- (a) are owned by the City and the District in direct proportion to the contribution each municipality made to the purchase of the asset;
- (b) shall each be recorded in an inventory kept by the Commission and showing
 - (i) date of purchase,
 - (ii) cost,
 - (iii) location (Facility),
 - (iv) expected life, and
 - (v) depreciation rate; and
- (c) shall each be dealt with at the termination of the Agreement as follows:
 - (i) if either municipality wishes to obtain full ownership of an asset, it shall pay to

the other municipality the depreciated value of the other municipality's share, such depreciation to be based on the appropriate capital cost allowance used for income tax purposes.

- (ii) if neither municipality wishes to retain possession or if both Municipalities wish to obtain full ownership of an asset, the asset shall be sold and the proceeds divided between the two Municipalities in direct proportion to the ownership of the asset as set out in (a).

Province of British Columbia



No. 950493

Statutory Approval

Under the provisions of section 237

of the Municipal Act

I hereby approve Bylaw No. 6719

of The Corporation of the City of North Vancouver, a copy

of which is attached hereto.

Dated this 9th day of November, 1995

Pauline T. Ferguson
Minister of Municipal Affairs

THIS PAGE INTENTIONALLY LEFT BLANK

THE CORPORATION OF THE CITY OF NORTH VANCOUVER

BYLAW NO. 9063

**A Bylaw to amend the “North Vancouver Museum and Archives
Commission Agreement Bylaw, 1995, No. 6719”**

The Council of The Corporation of The City of North Vancouver, in open meeting assembled, enacts as follows:

1. This Bylaw shall be known and cited for all purposes as “**North Vancouver Museum and Archives Commission Agreement Bylaw, 1995, No. 6719, Amendment Bylaw, 2024, No. 9063**” (Deaccession).
2. The “North Vancouver Museum and Archives Commission Agreement Bylaw, 1995, No. 6719” is amended:
 - A. By deleting in its entirety section D.15 of Attachment D to the Agreement entitled “Deaccession” and replacing it with the following new section D.15:

Deaccession

D.15. A recommendation for the deaccession of any material in the collection shall be referred by the Director to the Commission for approval, and, if approved by the Commission, any monies received from such deaccession shall be retained by the Commission to acquire appropriate material for the collection on behalf of the owner of the deaccessioned material. For clarity, deaccessions apply to materials in the collections held by both the museum and the archives and, if requested by a municipal owner, municipally generated materials will be returned to the municipality upon deaccession.

READ a first time on the <> day of <>, 2024.

READ a second time on the <> day of <>, 2024.

READ a third time on the <> day of <>, 2024.




ADOPTED on the <> day of <>, 2024.

MAYOR

ACTING CORPORATE OFFICER

THIS PAGE INTENTIONALLY LEFT BLANK



 Department Manager	 Director	 CAO
---	---	--

The Corporation of **THE CITY OF NORTH VANCOUVER**
PLANNING & DEVELOPMENT DEPARTMENT

REPORT

To: Mayor Linda Buchanan and Members of Council

From: Sean Galloway, Director, Planning and Development

Subject: ZONING BYLAW AMENDMENT – MONEY SERVICES BUSINESS

Date: October 2, 2024 File No: 13-6630-01-0001/2024

The following is a suggested recommendation only. Refer to Council Minutes for adopted resolution.

RECOMMENDATION

PURSUANT to the report of the Director, Planning and Development, dated October 2, 2024, entitled “Zoning Bylaw Amendment – Money Services Business”:

THAT a Zoning Bylaw amendment, to introduce a definition for Money Services Business and regulate the location of such businesses, be considered and no Public Hearing be held, in accordance with the *Local Government Act*;

AND THAT notification of First Reading of “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9084” be circulated in accordance with the *Local Government Act*.

ATTACHMENTS

1. “Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9084” (CityDocs [2580974](#))

BACKGROUND

The City of North Vancouver has consistently promoted the importance of Lonsdale Avenue and its surrounding commercial areas as the centre of both the City and the North Shore. Beyond this, policy measures, including the Official Community Plan and Zoning Bylaw, direct development to ensure a diversity of land use and built form types. The importance of these policies and their intent are discussed below.

As Lonsdale Avenue and the surrounding commercial areas have developed there has been a concentration of business types that are not generally consistent with creating a vibrant walkable urban main street. These types of businesses tend to function as more office oriented than retail/pedestrian oriented and the former does not generate the same level of street activity as the latter.

Given the City’s desire to maintain a strong pedestrian oriented street with uses that generate activity, Council directed staff through the following Notice of Motion to review and recommend a path forward to prevent an over-concentration of business types, such as Money Services Business, within the Lonsdale Corridor and throughout the City’s commercial areas.

The Notice of Motion adopted by Council provides:

WHEREAS the number of currency exchanges in the City of North Vancouver has noticeably increased over the past few years, particularly in the Central Lonsdale area of the City;

WHEREAS financial services, such as currency exchanges, that are located at the street level do not add sufficiently to the vibrancy, balance and diversity of the street level experience as envisioned by the City of North Vancouver Strategic Plan, which calls for “A Vibrant City” with the objective to “activate public spaces – parks, streets, plazas, outdoor areas – for residents to gather together, interact and engage in activities”;

WHEREAS the City of North Vancouver plans include projects such as Lonsdale Great Street, with the aim of reimagining, revitalizing and repurposing Central Lonsdale Avenue as a ‘great street’ to support commercial activity, enhance esthetics, walkability, vibrancy and history;

AND WHEREAS the City of North Vancouver restricts the number of licences for cannabis and liquor stores across the City and does not prescribe the use of financial services in Retail Service Group 1A;

THEREFORE BE IT RESOLVED that staff prepare a recommendation to Council that would limit the number and/or location of currency exchanges operating in the City.

PROPOSED ZONING BY-LAW AMENDMENT

The proposed Zoning Bylaw change is for two text amendments that would:

1. Add a definition for Money Services Business; and,
2. Include a general provision across all zones within the City of North Vancouver (CNV) that the uses defined in the aforementioned new definition be directed away from ground floor units that are adjacent to the sidewalk.

The new definition for Money Services Business to be added:

Money Services Business: Money Services Business: means the use of Premises for providing one or more of the following services:

1. currency exchange;
2. issuing or redeeming money orders, traveller's cheques or other similar negotiable instruments except for cheques payable to a named person or entity;
3. remitting funds or transmitting funds by any means or through any person, entity or electronic funds transfer network; or
4. dealing in virtual currencies.

but excludes Canada Post offices or outlets, and banks and financial institutions, as those terms are defined in the Canada Bank Act, S.C. 1991, c. 46.

The new general provision to be added:

Money Services Business are not to be located in a ground floor unit of any building that is directly accessed by a sidewalk. The uses defined under this category may locate on the 2nd floor and above, in an adjoining unit to the ground floor unit (cannot be the primary business on the ground floor) that is accessed by a sidewalk and below the ground floor.

To give further context to the aforementioned general provision, a sidewalk is defined under the Street and Traffic Bylaw as: "Sidewalk" means that portion of the street other than a roadway that is improved for the use of pedestrians.

POLICY CONTEXT

Metro 2050 – Regional Growth Strategy	
<p>Goal 1 <u>Regional City Centre:</u> Accommodates significant levels of sub-regional residential and employment growth.</p> <p><u>Types of Uses:</u> Sub-region serving uses (hospital, postsecondary). Office uses. Sub-regional scale employment, services, business and commercial activities. Major institutional, community, cultural and entertainment uses. High and medium density forms of housing (in General Urban only), including affordable housing choices. Existing frequent transit services. Provision of transit priority measures and other transit-supportive road infrastructure and operations. Minimum density of 60-350 Jobs + People/hectare.</p>	<p>The proposed amendments support the preservation of employment space for larger scale (or Sub-regional) opportunities. As major activity generating uses are intended to be directed to the Regional City Centres, the proposed changes ensure the opportunity for consolidation and enhancement of space to better allow for more major uses.</p>

Official Community Plan	
<p>Policy 1.1.4 Support the role of the Lonsdale Regional City Centre as the urban core of the City, in part, by locating high trip-generating uses such as high density residential and commercial uses there.</p>	<p>By ensuring zoning provisions support more activity generating uses at the ground floor this will re-enforce the policy to direct those uses away from the ground plane within the Lonsdale Corridor and associated commercial areas.</p>
<p>Policy 1.1.5 Provide space for commercial uses in mixed-use developments to support employment and economic development.</p>	<p>The amendments ensure that there is not an over-concentration of a singular use along the Lonsdale Corridor.</p>
<p>Policy 1.3.8 Ensure that developments along commercial streets contribute to the active and pedestrian-friendly character of the area</p>	<p>By ensuring these provisions are in the Zoning By-law it directs less activity oriented uses to the second floor of buildings and ensure the character of the Lonsdale Corridor remains intact.</p>
<p>Policy 1.3.10 Encourage active, healthy lifestyles and the opportunity for more social connections through planning and active design principles that encourage physical activity and contribute to enhanced walkability and active streets, sidewalks and public spaces.</p>	<p>Similar to Policy 1.3.8, the provisions will assist in promoting active streets that in turn supports more walkable and healthy public spaces and shopping streets.</p>
<p>Policy 7.1.2 Seek a strong balance of employment to resident labour force as generating more jobs close to home makes for shorter average commutes.</p>	<p>The amendments will continue to support more active uses along the Corridor and associated precincts along with opportunities to diversify job opportunities for a variety of ages.</p>
CNV Economic Strategy	
<p>Direction #1 Enhance economic space: Optimize Employment Lands and Innovate Economic Space.</p>	<p>The proposal promotes the preservation of space for innovative economic opportunities to exist at the ground plane; along with ensuring more diverse uses can exist in the corridor at various levels of multi-story buildings.</p>
<p>Direction #2 Create world-class, multifunctional public Places: Activate the Public Realm to Facilitate Economic Growth.</p>	<p>As with the policies of the OCP, the provisions of the proposal look to ensure more active uses are located on the ground floor to activate the public realm.</p>
<p>Direction #4 Build a future-focused, resilient local Economy: Enable Responsive and Targeted Economic Programming.</p>	<p>The proposal provides direction to prevent the over-concentration of one particular use and promotes opportunities/space for future-oriented employment opportunities to easily locate along the corridor.</p>

CNV Community Well-Being Strategy	
Direction #4 Create an inclusive city, where we celebrate diversity, and we commit to advancing equity and accessibility for all.	This direction seeks to ensure spaces and places are designed to be inclusive and are diverse. Though the provisions proposed do remove business opportunities along the ground floor they are not fully prohibited, which supports individuals to engage with there community.
Direction #5 Poverty Reduction and Inclusive Economy: Create a people-centered local economy and work together to break the cycle of poverty.	Consistent with Direction #4 of this Strategy, the proposal does not fully prohibit this use, but does reduce its available opportunities.

Within the OCP a variety of land use designations will be impacted, but all will contain non-residential permissions within the designation. These include:

1. Mixed Use Levels 1,2 and 3
2. Mixed Use Levels 4A and 4B
3. Harbourside Waterfront
4. School and Institutional
5. Commercial
6. Mixed Employment
7. Industrial
8. Parks and Open Space

However, the designations mostly impacted will be Nos. 1, 2, 3, 5 and 6. The proposed amendment would be directing the use to the floors above and/or below the ground floor of a building within the designation that permits commercial uses. Where a building is residential only in these designations, this use would not be permitted within a residential unit.

PLANNING ANALYSIS

The Lonsdale Great Street Project will prepare a long-term vision and strategy to coordinate, the overall look and feel of the street, how programming and maintenance operations will occur and the future urban form and land use. Particular to this amendment, the coordination of future land use will help to inform the appropriate retail, office and entertainment mix to ensure that Central Lonsdale and Lonsdale Avenue is a vibrant destination.

The current amendment allows all current Money Services Businesses with a business licence to continue operating as legal non-conforming and will only allow new businesses to open in the prescribed areas of buildings as described in the general provision of this amendment.

Council’s Community Well-Being Strategy looks to support inclusivity and an inclusive economy; the amendment as proposed does not fully prohibit the Money Services

Business use, but would reduce their future availability in ground floor locations. In not fully prohibiting the use(s), there is still the opportunity to build an inclusive economy and enable a variety of money service options that may support diaspora communities within the City who require access to support families both in North Vancouver and abroad.

Use:

In general terms, the uses as defined above that form part of the Zoning Bylaw Amendment, are not consistent with the aforementioned policy framework when the uses are permitted on the ground floor. Both the Regional and City based policies seek to activate and support pedestrian activity, which creates a more walkable environment. Like many financial oriented uses, those defined as Money Services Business are not strong activators of the public realm. In providing activation along the City's commercial corridors, it promotes a stronger opportunity for world-class, multifunctional public spaces, enhanced economic space (diversification of uses) and builds a foundation for a more future-focused and resilient local economy. As the money services businesses are still generally needed within the community and provide a variety of supports for community members, the proposed amendments do not seek to fully prohibit the use within CNV. However, the General Provisions of the Zoning Bylaw will seek to move the businesses, in this use category, off the ground floor or on the ground floor, but not directly accessed from the sidewalk. In doing this, the uses will no longer impact the ground floor activation requirements of the policy framework.

Beyond the proposed amendment, the other potential tool that the City could use to control the location of money service businesses would be to implement the Retail Service Group 1A (RSG 1A) category across all commercial and mixed use zones. The RSG 1A category was implemented in an effort to prevent the further proliferation of financial service uses along the Lonsdale Corridor, such as banks, credit unions and investment companies. To date, this category has only been applied to a small number of Comprehensive Development Zones (CD) in Upper and Lower Lonsdale. If RSG 1A is implemented across all commercial and mixed use zones it would be a full prohibition on not only money service businesses, but all financial service businesses. If any future business consistent with financial service uses would want to locate in the City it would require a Zoning By-law Amendment and the creation of a CD Zone on every subject property. Given this, the use of the RSG 1A is not recommended.

Intensity:

As with all planning activities, a successful place is created when there is a balance of intensity of the use and urban form. For the purposes of the proposed amendment, given that the urban form is largely intact and the focus is on defining the use there will be no discussion on the intensity of urban form.

A place like the Lonsdale Corridor (Upper and Lower Lonsdale), needs to have a strong balance in the intensity of commercial uses. There is the potential for an over-intensification of a use(s), which may have a long-term negative impact from an economic, walkability and civic image perspective of a place. Over the past few years there has been an increase in money service businesses and related uses along the Lonsdale Corridor. As the number of businesses in this category increase, it is

warranted to assess their overall impact on the Corridor and potential for over-intensification, ultimately affecting the City’s ability to deliver on the policy framework for its commercial corridors.

As such, the proposed Zoning B-law Amendment seeks to limit the impact for potential over-intensification of this use on the ground floor. This will support the City’s policy framework for economically strong and pedestrian activated commercial areas. However, the use still has the opportunity to exist within designated commercial areas of CNV, by way of the proposed general provision. The zoning provision allows these uses on other floors of buildings or on the ground floor not directly accessed from the sidewalk.

Form:

As urban form is generally not impacted by the proposed Zoning Bylaw Amendment there is no effect on the City’s policy framework relative to this area.

FINANCIAL IMPLICATIONS

There are no anticipated financial impacts to the City.

INTER-DEPARTMENTAL IMPLICATIONS

Coordination with the City’s Business Services Team in the zoning review of Business Licence applications will be necessary.

CONCLUSION

The proposed amendment responds to Council’s notice of motion and seeks to implement the City’s policy framework, which aims to preserve the Lonsdale Corridor and surrounding precincts as walkable, active and vibrant pedestrian areas. The proposal does not fully prohibit the use throughout the City and therefore directs Money Service Businesses, like many other less active businesses, away from the ground floor. The amendment represents good planning and finds the appropriate balance to ensure a strong and vibrant Lonsdale Regional City Centre.

RESPECTFULLY SUBMITTED:



Sean Galloway, RPP, MCIP
Director, Planning and Development

THE CORPORATION OF THE CITY OF NORTH VANCOUVER**BYLAW NO. 9084****A Bylaw to amend “Zoning Bylaw, 1995, No. 6700”**

The Council of The Corporation of the City of North Vancouver, in open meeting assembled, enacts as follows:

1. This Bylaw shall be known and cited for all purposes as **“Zoning Bylaw, 1995, No. 6700, Amendment Bylaw, 2024, No. 9084” (Money Services Business)**.
2. Division I: Administration of Document “A” of “Zoning Bylaw, 1995, No. 6700” is hereby amended as follows:
 - A. In Part 2: Interpretation, by adding the definition for “Money Services Business” as follows:

“Money Services Business” means the use of Premises for providing one or more of the following services:

 - (1) currency exchange;
 - (2) issuing or redeeming money orders, traveller’s cheques or other similar negotiable instruments except for cheques payable to a named person or entity;
 - (3) remitting funds or transmitting funds by any means or through any person, entity or electronic funds transfer network; or
 - (4) dealing in virtual currencies;

but excludes Canada Post offices or outlets, and banks and financial institutions, as those terms are defined in the *Canada Bank Act*, S.C. 1991, c. 46.
3. Division II: General Zoning Standards of Document “A” of “Zoning Bylaw, 1995, No. 6700” is hereby amended as follows:
 - A. In Part 4: General Regulations, Section 405, replace “Unassigned” with “Money Services Business Location in Commercial Areas”;

B. In Part 4: General Regulations, Section 405, by adding the following:

Money Services Business must not be located in a ground floor unit of any building that is directly accessed by a sidewalk. The uses defined under this category may locate on the second floor and above, or in an adjoining unit to the ground floor unit (must not be the primary business on the ground floor) that is accessed by a sidewalk and below the ground floor.

READ a first time on the <> day of <>, 2024.

READ a second time on the <> day of <>, 2024.

READ a third time on the <> day of <>, 2024.

ADOPTED on the <> day of <>, 2024.

MAYOR

ACTING CORPORATE OFFICER