

DISTRICT OF WEST VANCOUVER
750 17TH STREET, WEST VANCOUVER BC V7V 3T3

14.2.

COUNCIL REPORT

Date:	July 4, 2024
From:	Matthew O'Connor – Manager, Bylaw & Licensing Services
Subject:	Metro Vancouver Gleneagles Pump Station Upgrade - Second Request for Order of Non-Enforcement of Noise Control Bylaw 4404, 2005
File:	1605-15-2024

RECOMMENDATION

THAT the request from Metro Vancouver (Gleneagles Pump Station Upgrade Project – Gallagher Place Pump Station) for an Order of Non-Enforcement of the Noise Control Bylaw No. 4404, 2005 Section 6.1.2 (a) to allow for overnight construction noise between the hours of 05:30pm to 05:00am on the dates of Thursday September 5, 2024, to Friday September 6, 2024, with the additional conditions contained in the report titled “Metro Vancouver Gleneagles Pump Station Upgrade - Second Request for Order of Non-Enforcement of Noise Control Bylaw 4404, 2005”, dated July 4, 2024, be approved.

1.0 Purpose

The purpose of this report is to present for Council consideration a subsequent request from Metro Vancouver (the Applicant), for an Order of Non-Enforcement of the Noise Control Bylaw No. 4404, 2005 (**Appendix A**) to allow for one additional night of overnight work to safely perform a full shutdown of Metro Vancouver’s Gallagher Place Pump Station (GPPS), which services households and businesses in the Horseshoe Bay, Gleneagles and Eagle Harbour communities, in order to install piping assemblies to support the construction and upgrade of the new pump station.

2.0 Legislation/Bylaw/Policy

The Noise Control Bylaw No. 4404, 2005 regulates, prohibits, and imposes requirements in relation to noise in the community. As per the Noise Control Bylaw No. 4404, 2005, “Construction Noise” means:

“any noises or sounds made on or associated with a construction site:

- a) in carrying on work in connection with the construction, demolition, reconstruction, alteration, or repair of any building or structure,*

b) in carrying on any excavation or other operation, or

c) in moving or operating a machine, engine, or construction equipment.”

The Noise Control Bylaw No. 4404, 2005 restricts construction noise to the following hours:

1. Monday through Friday from 7:30 a.m. to 5:30 p.m.;
2. Saturday from 8:00 a.m. to 5:00 p.m.; and
3. No construction noise is permitted on Sundays and holidays.

3.0 Council Strategic Objective(s)/Official Community Plan

Official Community Plan Bylaw 4985, 2018 (OCP)

The following section of the OCP is applicable to this report:

- 2.5.1 Continue to monitor and address emerging needs of municipal utility systems (e.g., water supply and distribution, liquid and solid waste removal, and drainage systems) and infrastructure to ensure the long-term sustainable provision of reliable services.

4.0 Background

4.1 Previous Decisions

Council, at its February 26, 2024, regular meeting, passed the following resolution:

THAT the request from Metro Vancouver (Gleneagles Pump Station Upgrade Project – Kensington Crescent Pump Station) for an Order of Non-Enforcement of “Noise Control Bylaw No. 4404, 2005” Section 6.1.2 (a) to allow for overnight construction noise between the hours of 9 p.m. to 7 a.m. on the dates of Saturday March 16, 2024, and Sunday March 17, 2024, with the additional conditions contained in the report titled Metro Vancouver Gleneagles Pump Station Upgrade Request for Order of Non-Enforcement of “Noise Control Bylaw No. 4404, 2005”, dated February 13, 2024, be approved.

4.2 History

The Gallagher Place Pump Station is the fourth of five sanitary pump stations in series known as the Gleneagles system. It is located in West Vancouver and services households and businesses in the Horseshoe Bay, Gleneagles, and Eagle Harbor communities. The system is owned and operated by Metro Vancouver and ultimately conveys sanitary flow to the Lion’s Gate Wastewater Treatment Plant. The Gleneagles system was

originally constructed around 1971 and is reaching the end of its service life. GPPS is currently being upgraded by Metro Vancouver to ensure continued reliable service, to improve seismic resiliency, and to accommodate future demand.

Previous overnight work that occurred on March 16, 2024 and March 17, 2024, to upgrade the Kensington Crescent Pump Station, went well and only one public inquiry was received by Metro Vancouver, which was resolved immediately.

5.0 Analysis

5.1 Discussion

The Applicant has submitted a Noise Variance Application Report (**Appendix B**) seeking an Order of Non-Enforcement of the Noise Control Bylaw No. 4404, 2005 to allow for overnight bypass tie-in work to install two tee valve assemblies at GPPS along the existing Gleneagles sanitary main. The request for non-enforcement pertains to one night of overnight work on the dates of September 5, 2024, and September 6, 2024, between the hours of 05:30pm and 05:00am. The work is scheduled to occur at three separate sites: Eagle Harbour, Gallagher Place, and Kensington Crescent and Marine.

Proposed work is scheduled to begin preparation around 05:30pm on September 5, 2024, with the main project taking place between the hours of 10:00pm and 05:00am. Work is to be performed by Metro Vancouver, Industra and Mcrae's Environmental and involves many workers and supervisory staff.

During the proposed project, sanitary flow from the Gleneagles system will be taken in by the hydrovac trucks and transported to Metro Vancouver's grit station at Kensington Crescent and Marine Drive, where trucks will dispose it back into the sanitary system for transport to the Lion's Gate Wastewater Treatment Plant.

The proposed work is weather dependent, as rain and increased overnight sanitary flow rates would prevent it from going through. Work would be postponed to a later date if it was unable to be completed on September 5, 2024.

Eagle Harbour

Metro Vancouver has a grit chamber located within the Eagle Harbor Yacht Club parking lot. This will be the primary withdrawal point to bypass the tie-in work taking place at the GPPS. Hydrovac trucks will be running constantly throughout the duration of the work. This location has surrounding residential properties that will be subjected to sustained heavy equipment noise for the duration of the bypass. Active hydrovac

truck noise while fully vacuuming sanitary flow, when measured in direct proximity, is approximately 100 decibels. A substantial noise impact is expected. To help reduce the noise level experienced by nearby residents, the contractor will investigate the feasibility of using pumps with sound dampening protection to pump sanitary between the grit chamber and the hydrovac trucks. There will be traffic impacts and parking stall closures in the area requiring a street-occupancy permit (SOP).

Gallagher Place

Gleneagles Pump Station 4 at Gallagher Place is where the main tie-in work will occur, involving the installation of two tee valves to subvert GPPS, diverting sanitary flow to a temporary bypass station to allow for upgrade work to occur. Residents will be exposed to regular construction noise for the duration of the shutdown. This has been an active construction site during daytime hours for several months.

Kensington Crescent and Marine Drive

Metro Vancouver's grit chamber located at Kensington Crescent and Marine Drive is the proposed dump location. All hydrovac trucks from the withdrawal point at Eagle Harbour will be dumping at this location. The location is surrounded by residential houses. Residents will be exposed to noise from vehicles idling and dumping sanitary for the duration of the shutdown. Hydrovac trucks dispose of sanitary waste by gravity, thus limiting the noise impacts from the operations of their suction systems. This has been an active construction site during daytime hours for several months.

Overnight Work Justification

The primary justification for the exemption request is the difference in sanitary flow rates the Applicant has observed, and the operational feasibility and safety associated with daytime work when sanitary flow rates are at their highest. A window of no sanitary flow is required to cut into the existing pipe to install the tee valve assemblies at the GPPS upstream and downstream locations. To subvert the GPPS during this window, Metro Vancouver has contracted out 6 tanker trucks from Mcrae's Environmental.

Metro Vancouver observed daytime flow rates at GPPS averaging 15 litres per second, while overnight flow rates averaged 6 litres per second. If the system becomes overloaded and hydrovac trucks are unable to keep up with the sanitary flow, the emergency system will activate, and sanitary flow will be released into Eagle Harbour. If this were to happen, an environmental perimeter would need to be set up in Eagle Harbour to contain the sanitary flow and a large scale clean up, potentially spanning

numerous weeks, would be required. This would have a significant impact on the environment, community, and wildlife in the area.

Additionally, traffic impacts will be most limited at night. As disposal is proposed at the Kensington Crescent and Marine Drive grit station to re-enter the system, traffic impacts in the area would have a more significant impact during daytime hours.

Alternative Options Considered

Staff reviewed Appendix B and provided feedback regarding noise mitigation during the proposed work. An alternative to hydrovac trucks is typically a gas generator powering electric pumps. These alternative generators have noise issues themselves, to a lesser extent, but could be more easily muffled. Long term projects generally pursue this option due to the impacts of prolonged noise exposure and the ability to reduce more easily said noise.

Additional times were reviewed, including morning, daytime, and early night work. Average flow rate charts show a spike in rates during the morning and early night hours, while a higher sustained average occurs throughout the day. The lowest average flow rate measures are generally observed overnight, when residential and commercial use of facilities are less frequent. Preventatively to avoid complications, overnight work provides the best window for the work to be safely completed.

Recommended Conditions

Staff have reviewed the Application, and believe it is reasonable in the circumstances and given the scope of the work. Staff recommend that Council approves the Order of Non-Enforcement of the Noise Control Bylaw 4404, 2005, on the following terms:

1. Extended hours permitted overnight for one night between September 5, 2024, and September 6, 2024;
2. Extended hours permitted between 05:30pm to 12:00am on September 5, 2024 and 12:00am to 07:00am on September 6, 2024;
3. The Applicant must provide a representative onsite during the extended hours to ensure the contractor is adhering to the above conditions and will be the primary contact with District staff and members of the public;
4. The Applicant will notify the District if the proposed work has to be postponed and another date must be selected;
5. If the proposed work is postponed, Staff will engage with the Applicant to notify affected residents and approve another date for the overnight work;

6. The Applicant will distribute a notice, as approved by District staff, to all parcels within at least a 100-meter radius of the sites at least seven (7) days before the commencement of the overnight work.

7. The Applicant obtains the relevant street occupancy permits from the District for any work where a permit is not already active;

Authority to Consider a Request for an Order of Non-Enforcement

The Director of Planning and Development Services is authorized to consider applications for exemptions from the restrictions related to Construction Noise contained in subsection 6.1.2(a) of the bylaw for extended concrete pours only. The proposed work does not fall within that scope of work.

5.2 Climate Change & Sustainability

This proposed project will ensure that more modern infrastructure will enhance the sanitary system and better serve residents and businesses in West Vancouver. The new system will have improved seismic resiliency, which will better help accommodate future demand and prevent emergency overflow into surrounding lands, soil, and Eagle Harbour.

5.3 Public Engagement and Outreach

Metro Vancouver's Community Engagement team has committed to the following upon Council approval of the exemption request:

- Deliver notification letters to impacted residents and businesses in the each of the areas listed below, in advance of the work taking place.
- Conduct targeted door-to-door visits with the most impacted residents and businesses to explain the necessity of the planned nighttime work and capture feedback; and, relay engagement findings to the District of West Vancouver.
- Clearly communicate the anticipated overnight impacts.
- Work closely with project team to help mitigate impacts and ensure clear signage is in place near all work areas.
- Assign a dedicated Community Liaison who will be available by phone and email well in advance, during and after the work is complete to answer questions, provide information and receive input.

6.0 Options

6.1 Recommended Option

THAT the request from Metro Vancouver (Gleneagles Pump Station Upgrade Project – Gallagher Place Pump Station) for an Order of Non-Enforcement of the Noise Control Bylaw No. 4404, 2005 Section 6.1.2 (a) to allow for overnight construction noise between the hours of 05:30pm to 05:00am on the dates of Thursday September 5, 2024, to Friday September 6, 2024, with the additional conditions contained in the report

titled “Metro Vancouver Gleneagles Pump Station Upgrade - Second Request for Order of Non-Enforcement of Noise Control Bylaw 4404, 2005”, dated July 4, 2024, be approved.

6.2 Considered Options

Council may:

- Approve the Order of Non-Enforcement on other terms; or,
- Not approve the Order of Non-Enforcement.

7.0 Conclusion

Staff believe that the application is reasonable in the circumstances and reduces the length of impact and risk factors associated with the proposed work. Accordingly, staff recommend approving the application as recommended in this report. Staff will maintain communications with the Applicant to ensure compliance.

Author: *Matthew O'Connor*
Matthew O'Connor – Manager, Bylaw & Licensing Services

Appendices:

Appendix A: Noise Control Bylaw No. 4404, 2005

Appendix B: Metro Vancouver Noise Variance Application – Gleneagles Pump Station Upgrade Project – Gallagher Place Pump Station

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Appendix A

District of West Vancouver



Noise Control Bylaw No. 4404, 2005

Effective Date – May 09, 2005

Consolidated for Convenience Only

This is a consolidation of the bylaws below. The amendment bylaws have been combined with the original bylaw for convenience only. This consolidation is not a legal document. Certified copies of the original bylaws should be consulted for all interpretations and applications of the bylaw on this subject.

Amendment Bylaw	Effective Date
Bylaw No. 5042, 2019	December 16, 2019
Bylaw No. 4981, 2018	May 28, 2018
Bylaw No. 4521, 2007	October 22, 2007
Bylaw No. 4500, 2007	May 28, 2007
Bylaw No. 5042, 2019	December 16, 2019

The bylaw numbers in the margin of this consolidation refer to the bylaws that amended the principal bylaw: Noise Control Bylaw No. 4404, 2005. The number of any amending bylaw that has been repealed is not referred to in this consolidation.

District of West Vancouver

Noise Control Bylaw No. 4404, 2005

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District of West Vancouver

Noise Control Bylaw No. 4404, 2005

A bylaw to regulate or prohibit the making of certain noises or sounds in the District of West Vancouver under the *Community Charter*.

Previous amendments: *Amendment Bylaws 4500, 4521, 4981 and 5042.*

WHEREAS the Council of The Corporation of the District of West Vancouver deems it expedient to provide for regulations and prohibitions regarding the making of noise;

AND WHEREAS Council may by bylaw regulate, prohibit and impose requirements in relation to the protection and enhancement of the well-being of its community in relation to nuisances, disturbances and other objectionable situations, including noise that is liable to disturb the quiet, peace, rest, enjoyment, comfort or convenience of individuals or the public;

NOW THEREFORE, the Council of the District of West Vancouver enacts as follows:

Part 1 Citation

1.1 This Bylaw may be cited as Noise Control Bylaw No. 4404, 2005.

Part 2 Severability

2.1 If a portion of this bylaw is held invalid by a Court of competent jurisdiction, then the invalid portion must be severed and the remainder of this bylaw is deemed to have been adopted without the severed section, subsection, paragraph, subparagraph, clause or phrase.

Part 3 Previous Bylaw Repeal

3.1 Noise Control Bylaw No. 3908, 1994 (adopted on May 01, 1995) and the following amendment bylaws are hereby repealed:

Amendment Bylaw	Effective Date
Bylaw No. 3995, 1996	April 22, 1996
Bylaw No. 4250, 2001	July 16, 2001

Part 4 Definitions

4.1 In this bylaw:

“Bylaw Enforcement Officer” means every person designated by Council as a Bylaw Enforcement Officer, and includes every peace officer;

“Construction Noise” means any noises or sounds made on or associated with a construction site:

- a) in carrying on work in connection with the construction, demolition, reconstruction, alteration, or repair of any building or structure,
- b) in carrying on any excavation or other operation, or
- c) in moving or operating any machine, engine, or construction equipment;

“Continuous Sound” means any noise or noises, other than Construction Noise, continuing for a period, or periods, totalling 3 minutes or more in any 15 minute period;

“Day” means the period of time from 0700 hours (7:00 a.m.) to 1800 hours (6:00 p.m.) on each week day or Saturday and from 0900 hours (9:00 a.m.) to 1800 hours (6:00 p.m.) on a Sunday or holiday;

Bylaw 4981

“Extended Concrete Pour” means a concrete pour that requires an extended period of time for placement or finishing due to any of the following characteristics, which must be confirmed by a Structural Engineer to be engaged by the District at the expense of the applicant:

- a) a single concrete slab pour in excess of 7,000 square feet;
- b) a concrete slab with added complexity due to below grade location, shape, or level of flatness required; or
- c) a concrete slab that requires post tension reinforcing;

“Highway” includes a street, road, land, bridge, viaduct and any other way open to the public use, but does not include a private right of way on private property;

“Meter” means an instrument which accurately measures levels of sound pressure on an “A” weighted scale in accordance with the American National Standards Institute standard for meters set out in S1.4-1983 as amended from time to time;

“Motor Vehicle” means a vehicle that is designed to be self-propelled and includes off-road vehicles, parts and equipment;

“Night” means the period of time from 1800 hours (6:00 p.m.) on one day to 0700 hours (7:00 a.m.) on the next and from 1800 hours (6:00 p.m.) on one day to 0900 hours (9:00 a.m.) on the next day when the latter is a Sunday or a holiday;

“Non-continuous Sound” means any noises or sounds other than Continuous Sound and Construction Noise;

“Point of Reception” means the place where a Meter is located to measure the Sound Level from a source of noises or sounds;

“Power Equipment” means any tool, equipment or machinery powered by an internal combustion engine or electric motor that is used for construction, lawn, garden, building and property maintenance, and includes edge trimmers, line trimmers, rototillers, pressure washers, carpet cleaning equipment, and hand operated power tools including but not limited to chain saws, chippers and leaf blowers;

“Premises” means the smallest unit of ownership or occupation of real property, whichever is the lesser;

“Sound Level” means the Meter reading or recording in decibels using an “A” weighted network at the slow response setting of the Meter.

Part 5 General Regulations

- 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.
- 5.2 No owner or occupier of real property shall allow the real property to be used so that noise or sound which emanates from the real property:
 - 5.2.1 disturbs or is liable to disturb the quiet, peace, rest, enjoyment, comfort, or convenience of individuals or the public; or
 - 5.2.2 exceeds the Sound Levels prescribed in this Bylaw.

Bylaw 4981

- 5.3 Despite compliance with Part 6, a person may be found in violation of sections 5.1 or 5.2.

Part 6 Objectionable Noises or Sounds

- 6.1 Without limiting sections 5.1 to 5.3 the following noises or sounds are deemed to disturb the quiet, peace, rest, enjoyment, comfort or convenience of individuals or the public and are prohibited:
- 6.1.1 any noises or sounds produced within or outside a Motor Vehicle and created by the following:
- (a) a Motor Vehicle engine or exhaust system when such noises or sounds are loud, roaring or explosive;
 - (b) a Motor Vehicle horn or other warning device except when authorized by law;
 - (c) a Motor Vehicle operated in such a manner that the tires squeal;
 - (d) a load or tow of a Motor Vehicle which causes a banging, clanking, squealing, or other like noise or sound due to improperly secured load or equipment, or inadequate maintenance;
 - (e) a radio, television, tape player or other sound playback device, amplification equipment, or a musical instrument, which can easily be heard by a person outside the Motor Vehicle.
- 6.1.2 any of the following noises or sounds:
- (a) Construction Noise:
 - (i) on a Sunday or a holiday;
 - (ii) before 0800 hours (8:00 a.m.) or after 1700 hours (5:00 p.m.) on a Saturday that is not a holiday;
 - (iii) before 0730 hours (7:30 a.m.) or after 1730 hours (5:30 p.m.) on any other day that is not a Saturday, Sunday or a holiday;

Amendment
Bylaw 5042

(iv) despite subsections (i) – (iii), in the area shown outlined in heavy black line on Schedule B, before 0630 hours (6:30 a.m.) or after 1930 hours (7:30 p.m.) on any day.

(b) Power equipment:

(i) on a Sunday or holiday;

(ii) during the Night;

(c) Noises or sounds from operation of a lawnmower;

(i) before 1100 hours (11:00 a.m.) or after 1600 hours (4:00 p.m.) on a Sunday or holiday;

(ii) before 0800 hours (8:00 a.m.) or after 2000 hours (8:00 p.m.) on any other day;

Bylaw 4500

(d) Noises or sounds from the loading or unloading of goods, materials, machines, equipment, waste or garbage by any means:

(i) on a Sunday or holiday;

(ii) before 0730 hours (7:30 a.m.) or after 1800 hours (6:00 p.m.) on any other day that is not a Sunday or holiday.

6.1.3 any noises or sounds, the occurrence of which extends continuously or non-continuously for 15 minutes or more which can be heard from a contiguous parcel, created by the following:

(a) a dog or any other animal or bird;

(b) a radio, record, tape, or disc player, television set, or other instrument or apparatus for the production or amplification of such;

(c) a burglar alarm or security system;

6.1.4 any noises or sounds resulting from the operation of a public address system outside of a building or structure;

6.1.5 in addition to the noises or sounds described in sections 6.1.1, 6.1.2, 6.1.3, or 6.1.4:

Bylaw 4500

- (a) any Continuous Sound that exceeds the following Sound Levels at the Point of Reception:

	Sound Level
(i) during the Day	55 dBA
(ii) during the Night	45 dBA

- (b) any Non-Continuous sound that exceeds the following Sound Levels at the Point of Reception:

	Sound Level
(i) during the Day	80 dBA
(ii) during the Night	65 dBA

- (c) any Construction Noise that exceeds a Sound Level at the Point of Reception:

	Sound Level
(i) during the Day	80 dBA

Part 7 Location of Point of Reception

- 7.1 For the purpose of enforcing this bylaw, measurement of Sound Levels shall be made:

- 7.1.1 in the case of noises or sounds in or on a Highway, in a public park or in another public place, from a Point of Reception not less than 5 metres from the noises or sounds;
- 7.1.2 in the case of noises or sounds created by Construction, from a Point of Reception on any Premises, not including the Premises on which the Construction is taking place; and
- 7.1.3 in all other cases, from a Point of Reception not on the Premises upon which the source of the noise or sound is located.

Part 8 Exclusions

- 8.1 This Bylaw does not apply to:

- 8.1.1 police, fire or other emergency personnel vehicles and equipment in relation to an emergency;

8.1.2 vehicles and equipment used to make emergency repairs to public utilities and services;

8.1.3 transit buses operated by a public authority;

8.1.4 work carried out by officers, employees or agents of the District;

Bylaw 4981

8.1.5 Extended Concrete Pours which have been temporarily exempted from the Construction Noise requirements contained in subsection 6.1.2 (a) of this Bylaw by the Director of Planning and Development Services, in accordance with Schedule A.

Bylaw 4981

8.2 Delegation of Authority:

8.2.1 The Director of Planning and Development Services is authorized to consider applications for exemptions from the restrictions related to Construction Noise contained in subsection 6.1.2 (a) of this Bylaw for Extended Concrete Pours, in accordance with Schedule A of this Bylaw.

8.2.2 The Director of Planning and Development Services shall approve applications for exemptions that meet the definition of Extended Concrete Pour and the requirements in Schedule A of this Bylaw.

Part 9 Enforcement

9.1 Every Bylaw Enforcement Officer is authorized to enforce this Bylaw, and, for that purpose, may enter at all reasonable times any real property to ascertain whether the provisions of this Bylaw are being observed.

Part 10 Penalty

Amended by
Regulatory
Bylaw
Enforcement
and Penalty
Bylaw No.
4521, 2007

- 10.1 Every person who violates a provision of this bylaw, or who consents, allows or permits an act or thing to be done in violation of a provision of this bylaw, or who neglects or refrains from doing anything required by a provision of this bylaw, is guilty of an offence and is liable, upon summary conviction, to a fine not exceeding \$10,000 and not less than \$2,500.
- 10.2 Each day that a violation continues or exists under this bylaw is a separate offence.
- 10.3 No person may interfere with an Enforcement Officer in issuing a ticket or bylaw notice or otherwise carrying out his or her duties in accordance with this bylaw, and it is an offence for any person to interfere with an Enforcement Officer in the enforcement of this bylaw.
- 10.4 No person shall interfere with or obstruct the entry of the Enforcement Officer onto any land, into any building, or any vehicle to which entry is made or attempted pursuant to the provisions of this bylaw.

Schedules

Amendment
Bylaw 5042

- Schedule A – Exemptions for Extended Concrete Pours
- Schedule B – Rodgers Creek Construction Noise Area

READ A FIRST TIME on April 11, 2005

READ A SECOND TIME on April 11, 2005

READ A THIRD TIME on April 11, 2005

ADOPTED by the Council on May 9, 2005

Mayor

Municipal Clerk

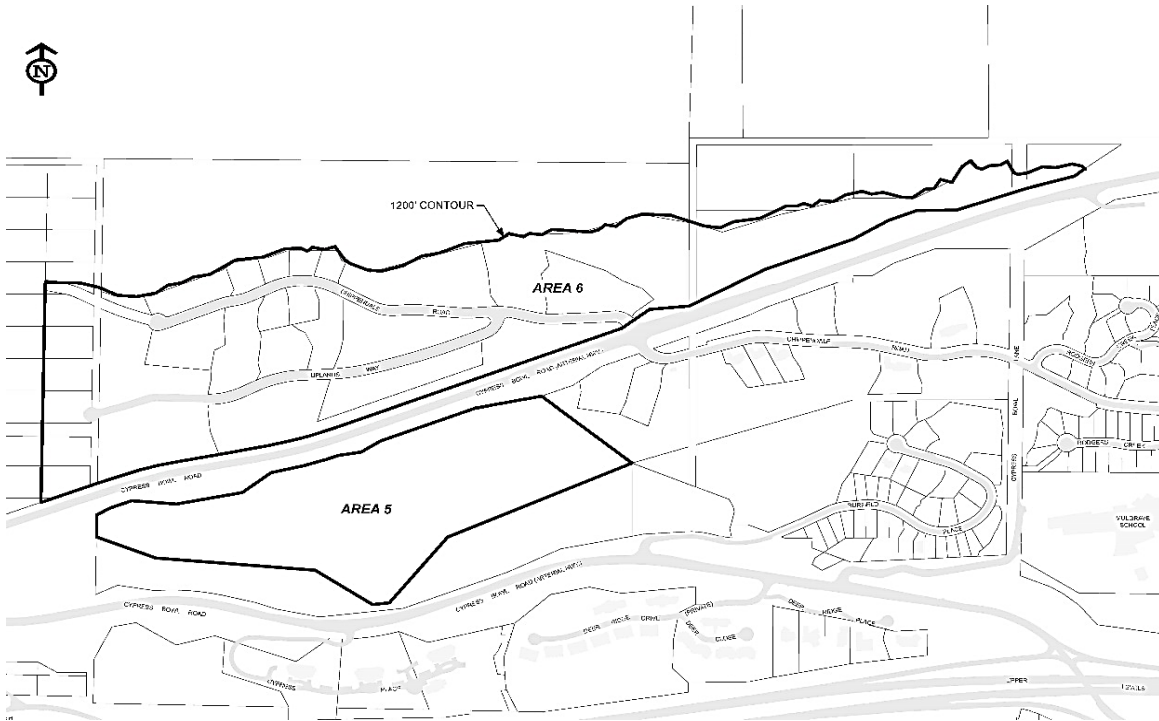
Schedule A – Exemptions for Extended Concrete Pours

1. A person may apply to the Director of Planning and Development Services for a temporary exemption from the restrictions related to Construction Noise contained in subsection 6.1.2 (a) of this Bylaw for Extended Concrete Pours.
2. An application for an exemption from section 6.1.2 (a) of this Bylaw must be submitted for each building to which it applies to the Director of Planning and Development Services:
 - 2.1 at least 45 days before the start of the proposed exempted period;
 - 2.2 in a format and with content satisfactory to the Director of Planning and Development Services, including but not limited to the following information:
 - a) name, address, and telephone number of the applicant;
 - b) the address and building permit number of the construction site;
 - c) the reason(s) the exemption is sought including supporting documentation as applicable;
 - d) a description of the proposed works to be undertaken;
 - e) the period of time for which the exemption is desired;
 - f) a statement of the measures planned or presently being taken to minimize the sound or noise for which the exemption is being sought; and
 - g) proof of payment of the non-refundable application fee pursuant to the *Fees and Charges Bylaw*, as amended or replaced.
 - 2.3 in addition to the requirements of section 2.2, the Director of Planning and Development Services may request further details regarding the proposed exempted works, including a review by an independent industry expert at the cost of the applicant.
3. Any exemption granted by the Director of Planning and Development Services shall specify the time period during which it is effective and may

- contain such terms and conditions as the Director of Planning and Development Services sees fit.
4. The decision of the Director of Planning and Development Services is final.
 5. When an exemption is granted by the Director of Planning and Development Services the applicant may be required to, at least seven (7) days before the commencement of the exemption period, distribute a notice to all parcels within a 100 m radius of the site. The notice shall be in a form and with content satisfactory to the Director of Planning and Development, such as to advise of the nature of the exemption. The applicant shall also post a sign at the construction site advising of the nature of the exemption.

Amendment
Bylaw 5042

Schedule B – Rodgers Creek Construction Noise Area



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District of West Vancouver Noise Variance Application

Gleneagles Pump Station Upgrade Project – Gallagher Place Pump Station



Abstract:

Metro Vancouver is requesting a noise variance permit from the District of West Vancouver to conduct overnight work on September 5, 2024 for the Gleneagles sanitary sewer system. The proposed work is essential infrastructure work to ensure the continued reliability of the sanitary system that serves residents and businesses in West Vancouver. The proposed work requires a full shutdown at Metro Vancouver's Gallagher Place Pump Station in order to install piping assemblies to support construction of the new pump station. The sanitary flow rates in the Gleneagles system are significantly lower overnight, in comparison to daytime flow rates. Performing the work during lower flow rates significantly reduces environmental, safety, and construction risks. Note this work will be similar to an overnight outage successfully conducted on March 16, 2024 but is expected to impact fewer work sites.

June 26, 2024

Metro Vancouver Project Team

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1.0 Project Background

The Gallagher Place Pump Station (GPPS) is the fourth of five sanitary pump stations in series known as the Gleneagles system. It is located in West Vancouver and services households and businesses in the Horseshoe Bay, Gleneagles, and Eagle Harbor communities. The system is owned and operated by Metro Vancouver and ultimately conveys sanitary flow to the Lion’s Gate Wastewater Treatment Plant. The Gleneagles system was originally constructed around 1971 and is reaching the end of its service life. GPPS is currently being upgraded by Metro Vancouver in order to ensure continued reliable service, to improve seismic resiliency, and to accommodate future demand. During the upgrade of the pump station, a temporary bypass pump station will be installed to maintain continuous pumping operations.

The noise variance permit is critical for the completion of the planned work at GPPS. The scope of this overnight work includes connecting into the existing live sanitary main to reroute flows to the newly constructed temporary bypass pump station. This will allow for the decommissioning and upgrading of the existing GPPS without interrupting the service of Gleneagles system.

2.0 Scope of Work

2.1 Contractor Tee Valve Assembly Installation

The existing piping near the GPPS does not include useable valves that can temporarily stop or redirect flows. The purpose of the Gleneagles system shutdown is for the contractor to install two tee valve assemblies along the existing Gleneagles sanitary main. This will require cutting into the existing pipe, removing a section, and installing the tee valve assemblies on both sides of the pump station.

Installation of tee valve assemblies will allow for the bypass of the existing pump station by rerouting flows to the newly constructed temporary bypass pump station. This will allow the Gleneagles system to operate as normal during the decommissioning of the existing station and construction of the new GPPS. Figures 1, 2 and 3 are schematics showing the upstream and downstream tee valve assemblies that are to be installed during the shutdown period. The installation of the tee valve assemblies requires a window of no sanitary flow at the GPPS and hence the system shutdown.

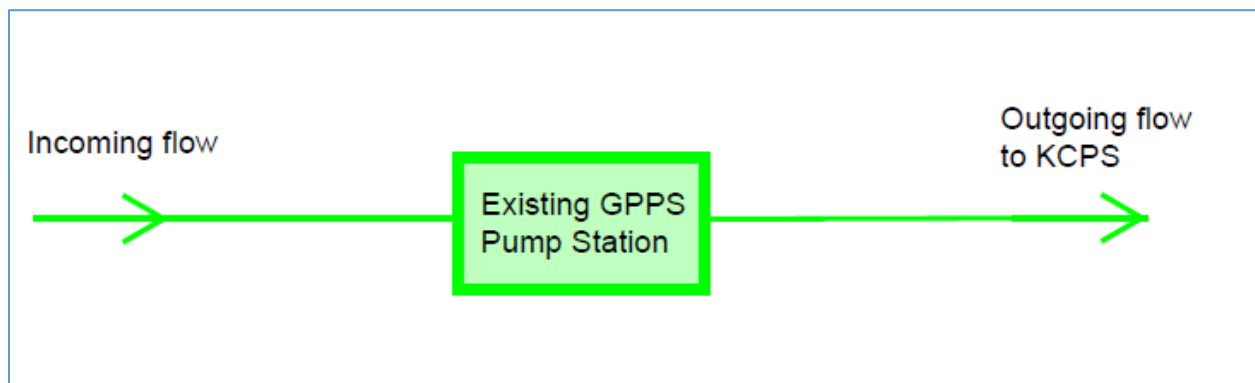


Figure 1 - Normal/Current Operation of Existing GPPS

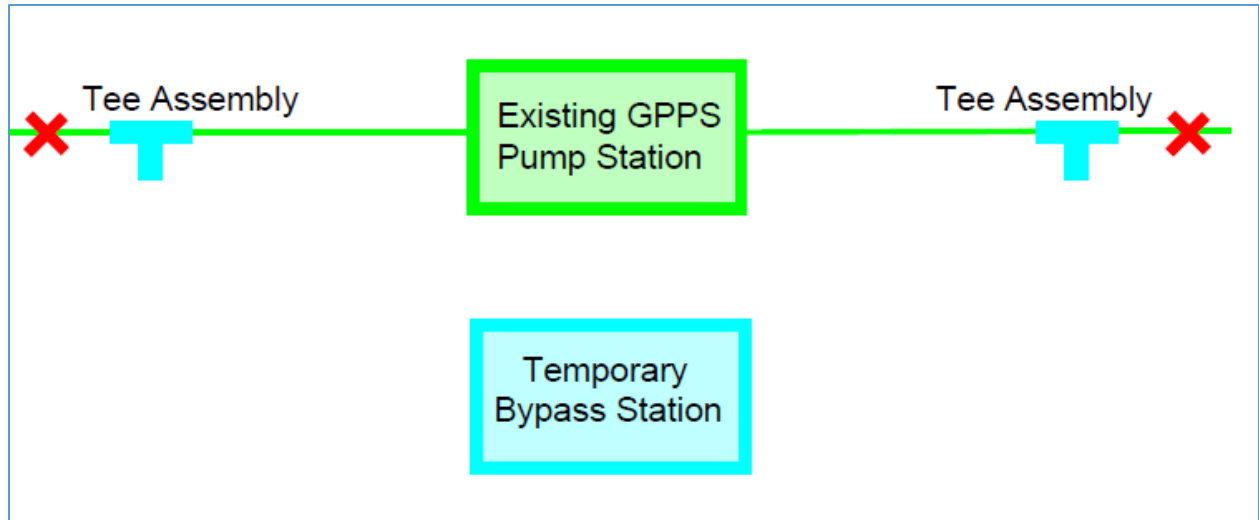


Figure 2 - Shutdown Period to Install Upstream and Downstream Tee Assemblies

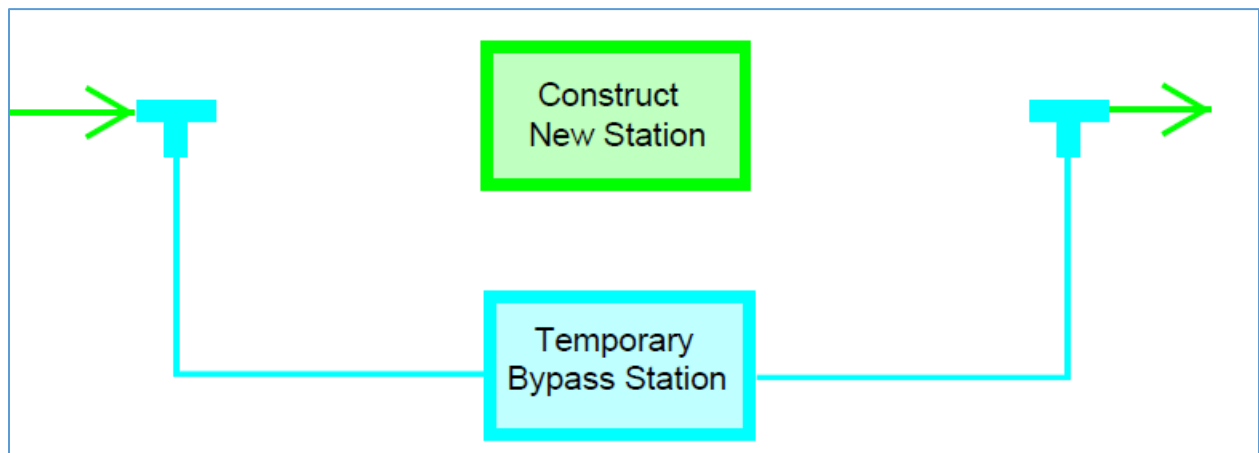


Figure 3 - Sanitary Flow Routed Through Temporary Bypass Pump Station during Construction of New GPPS

2.2 Hydrovac Bypass

As mentioned in the previous section, a window of no flow in the piping is required to cut into the existing pipe to install the tee valve assemblies at the GPPS upstream and downstream locations. Therefore, the proposed method to achieve no flow at the GPPS is to use hydrovac trucks to convey flows during the shutdown. The hydrovac trucks will withdraw sanitary flow before GPPS, transport it, and dump after GPPS. The proposed hydrovac withdraw location is the Eagle Harbor grit chamber located upstream of Gleneagles Pump Station #3. The Eagle Harbor grit chamber has been successfully used for similar work several times in the past few months. The proposed dumping location is Metro Vancouver’s Kensington Crescent Pump Station, located at Kensington Crescent and Marine Drive. Figure 4 below shows the hydrovac route for conducting the bypass.

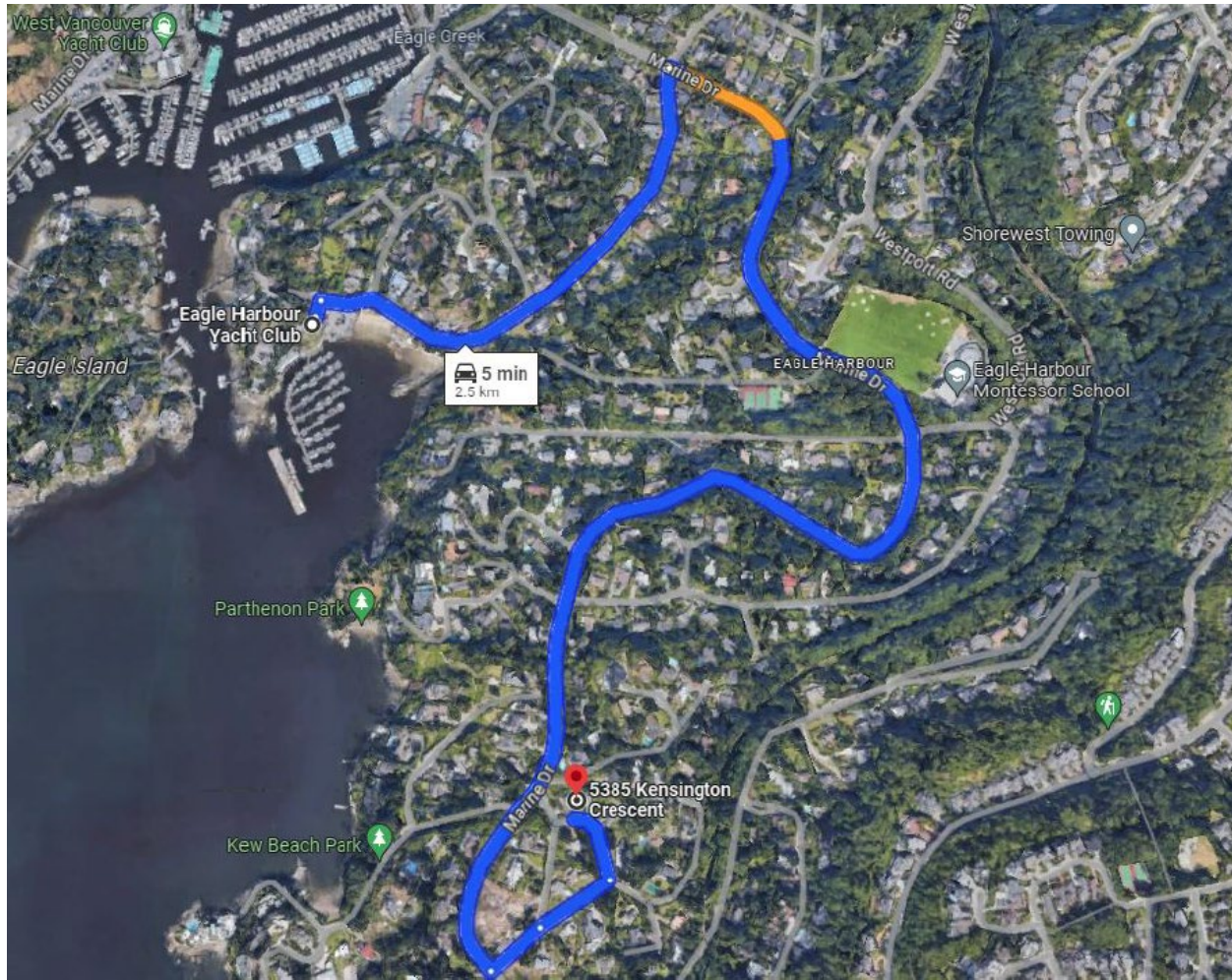


Figure 4 - Hydrovac Bypass Routing

2.3 Required Personnel and Equipment

The proposed work is expected to start Thursday, September 5, 2024 at 5:30 p.m. and finish at 4:00 a.m. on Friday September 6, 2024. The work occurring between 5:30 p.m. and 10:00 p.m will be setup activities that will be low impact. The actual timeframe of the work may be adjusted depending on the flow rates experienced on site. Additionally, the proposed date is weather dependent and subject to change within the approaching days. The tie-in work requires coordination of multiple parties including Industra, McRae’s Environmental, and various Metro Vancouver crews including EDC, O&M, electrical, and SCADA. Below is a table showing required resources.

Table 1 - Required Resources for Kensington Tie-In

Party	Resources
Industra	<ul style="list-style-type: none"> - Supervisory staff - Tee installation work crews - Monitoring/support staff - Traffic management staff
McRae’s Environmental	<ul style="list-style-type: none"> - 6 hydrovac trucks

Metro Vancouver	<ul style="list-style-type: none"> - EDC (Engineering, Design & Construction) managing and monitoring staff - 2 O&M crews - 1 Electrical crew - 1 SCADA operator
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3.0 Night Work Justification Based on Risk Factors

The primary justification for completing the hydrovac bypass overnight is to minimize the risks highlighted in Table 2 below.

Table 2 - Risk Factors Summary

Risk Description	Daytime Rating	Overnight Rating
Sanitary Flow Rates	High	Low
Hydrovac Travel Time	Medium	Low

3.1 Sanitary Flow Rates

The primary justification for the tie-in work taking place overnight is the difference in flow rates. The Gleneagles system experiences significantly higher flow rates during daytime hours. The lower flow rates seen overnight are due to residents not using toilets, sinks, showers and dishwashers. Figure 5 shows the average flow rates throughout the day on a typical dry summer day. As shown in the graph, the average overnight flows are 6 L/s while the average daytime flows are 15 L/s. Hence, daytime flows are 250% higher than overnight flows.

Uncertainty in the sanitary flow rate is the largest risk to the success of the tie-in work. Therefore, completing the tie-in work and hydrovac bypass at the lowest possible flow rate is crucial. Low flow rates will increase the safety factor in the hydrovac bypass flow capacity, which reduces the risk of a sanitary overflow/spill from the system. Sanitary spills contaminate surrounding soils and water courses which have detrimental impacts to the environment as well as human and wildlife safety.

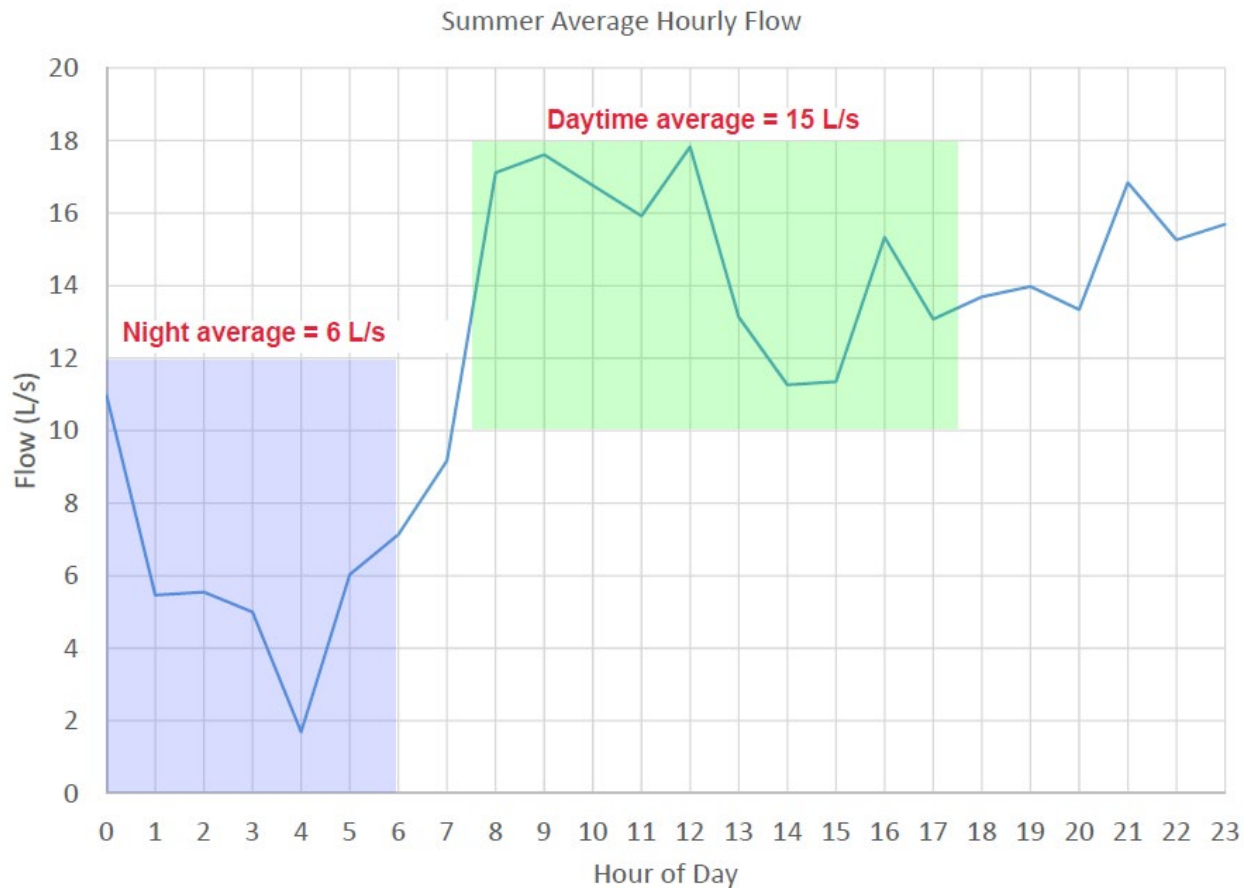


Figure 5 - Average Flow Rates throughout the day

3.2 Hydrovac Travel Time

Vehicle traffic on the hydrovac travel route is another risk impacting the successful completion of the tie-in work. Experiencing traffic along the route will delay the round trip time and effectively decrease the hydrovac bypass capacity. It is difficult to quantify the impact of traffic on the bypass capacity, however, it is safe to assume completing the work overnight will result in less risk of traffic. In addition, there is a 30 km/h school zone that would be in effect during regular work hours. Therefore, there is less chance of a sanitary spill in the Gleneagles system during bypass. Hydrovac trucks will follow the Heavy Vehicle Route Restrictions guide outlined by the District of West Vancouver.

4.0 Emergency Measures

There are a number of emergency measures in place for the tie-in work. First, the contractor will perform a dry walk through of the work plan prior to shutdown work taking place. This will ensure the contractor is familiar with the work procedure, and no time is lost while the system is under bypass. In addition, the contractor will maintain spill kits and absorbent pads in proximity to where the work is taking place. The spill kit and absorbent pads will be used promptly in case any leaks occur in the installed valve assemblies. Leaks in the valve assemblies will be eliminated by re-torquing the fittings. Lastly, the contractor, Metro Vancouver crews, and hydrovac support will remain on site to observe a full cycle of the Gleneagles pumps to ensure there are no concerns in the system.

5.0 Community Engagement and Minimizing Impacts

The main community impacts will result from the overnight noise and movement of hydrovac trucks required to perform the bypass work, and crews in the area. Residents in the surrounding areas will be exposed to hydrovac noise throughout the duration of the work depending on the specific location. Metro Vancouver plans to engage with residents and businesses in the affected areas in advance of the proposed overnight work, and report back to the District of West Vancouver on how impacts will be mitigated under the conditions. Additionally, arising from the previous overnight work of a similar nature on March 16, 2024, Metro Vancouver had a total of one public inquiry regarding the work, which was resolved immediately. The same proactive public engagement approach will again be implemented in this instance of overnight work.

Metro Vancouver's Community Engagement team will:

- Deliver notification letters to impacted residents and businesses in the each of the areas listed below, in advance of the work taking place
- Conduct targeted door-to-door visits with the most impacted residents and businesses to explain the necessity of the planned nighttime work and capture feedback; and, relay engagement findings to the District of West Vancouver
- Communicate clearly the anticipated overnight impacts such as:
 - Construction crews in the area
 - Construction vehicles and increased traffic
 - Noise from hydrovac trucks (to handle removal of sanitary flow) and on-site work
 - Construction lights in work areas
 - Parking and sidewalk restrictions
 - Single-lane alternating traffic and road closures
 - Restricted parking
- Work closely with the project team to help mitigate impacts and ensure clear signage is placed near work zones to inform neighbours of the work
- Assign a dedicated Community Liaison who will be available by phone and email to answer questions, provide information, and receive input

5.1 Eagle Harbor Yacht Club Grit Chamber Withdraw location

Metro Vancouver has a grit chamber located within the Eagle Harbor Yacht Club parking lot. The grit chamber will be the primary withdraw point to bypass the tie-in work taking place at the GPPS. This location has surrounding residential properties that will be subjected to sustained heavy equipment noise for the duration of the bypass. To help reduce the noise level experienced by nearby residents, the contractor will investigate the feasibility of using pumps with sound dampening protection to pump sanitary between the grit chamber and the hydrovac trucks.

Figure 6 shows the proposed layout for the work. Note there will be traffic impacts and parking stall closures that will be further detailed in a separate submittal to the District of West Vancouver.



Figure 6 - Eagle Harbor Yacht Club Grit Chamber Withdrawal Point

5.2 Gallagher Place Pump Station Work Site

Gallagher Place Pump Station is where the contractor will be performing the tie-in work. Residents will be exposed to regular construction noise for the duration of the shutdown. Note this has been an active construction site during daytime hours for several months.

5.3 Kensington Crescent Pump Station Dumping Location

Metro Vancouver’s Kensington Crescent Pump Station located at Kensington Crescent and Marine Drive is the proposed dumping location. The location is surrounded by residential houses. Residents will be exposed to noise from vehicles idling and dumping sanitary for the duration of the shutdown. Note this has been an active construction site during daytime hours for several months.

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