

Director	 Municipal Manager/Deputy Municipal Manager
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<u>COUNCIL AGENDA</u>	
Date: <u>July 7, 2025</u>	Item: <u>11.3.</u>



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

11.3.

COUNCIL REPORT

Date:	June 20, 2025
From:	Matthew O'Connor – Manager, Bylaw and Licensing Services
Subject:	Metro Vancouver Gleneagles Sanitary System Upgrade - Third Request for Order of Non-Enforcement of Noise Control Bylaw 4404, 2005
File:	1605-15-2025

RECOMMENDATION

THAT the request from Metro Vancouver (Gleneagles Sanitary System Upgrade – Sewer Force Main Replacement) 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 5:30 p.m. to 6:00 a.m. on the dates of Thursday, August 28, 2025, to Friday, August 29, 2025, with the additional conditions contained in the report titled “Metro Vancouver Gleneagles Sanitary System Upgrade - Third Request for Order of Non-Enforcement of Noise Control Bylaw 4404, 2005”, dated June 20, 2025, 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 to allow for one night of overnight work to safely perform a full shutdown of Metro Vancouver’s Gleneagles Sanitary System (GS), which services households and businesses in the Horseshoe Bay, Gleneagles and Eagle Harbour communities, in order to install piping assemblies to allow for redirection of sanitary flow from the existing force main to a temporary bypass main during upgrades of GS.

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.

Council, at its July 22, 2024, regular meeting, passed the following resolution:

THAT the request from Metro Vancouver (Gleneagles Pump Station Upgrade Project – Gallagher Place 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 5:30 p.m. on Thursday September 5, 2024 to 5 a.m. on Friday September 6, 2024, with the additional conditions contained in the July 4, 2024 report titled Metro Vancouver Gleneagles Pump Station Upgrade - Second Request for Order of Non-Enforcement of Noise Control Bylaw No. 4404, 2005, be approved.

4.2 History

The Gleneagles Sanitary System consists of five separate pump stations and services households and businesses in the Horseshoe Bay, Gleneagles, and Eagle Harbour communities. The system is owned and operated by Metro Vancouver and ultimately conveys sanitary flow to the Lion's Gate Wastewater Treatment Plant.

This interconnected sanitary system, originally constructed in 1971, is reaching the end of its service life and requires full upgrades and replacement to ensure continued reliable service, improve seismic resiliency, and accommodate future demand.

Previous overnight work that occurred on March 16, 2024, into 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 A**) 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 to subvert an existing force main in the GS, diverting sanitary flow through a temporary bypass while the force main is replaced. This will allow the GS to function during replacement and upgrade work to install new force mains during regular construction hours. Force mains use pumps to move sanitary waste uphill or over obstacles, while tee valve assemblies allow for the redirection of sanitary flow.

The request for non-enforcement pertains to one night of overnight work on the dates of August 28, 2025, and August 29, 2025, between the hours of 5:30 p.m. and 6:00 a.m. The work is scheduled to occur at three separate sites: Eagle Harbour, Kensington Crescent Pump Station (KCPS), and the intersection of Keith Road and Marine Drive.

Proposed work is scheduled to begin preparation around 05:30 p.m. on August 28, 2025, with the main project taking place between the hours of 10:00 p.m. and 6:00 a.m. (August 29, 2025). Work is to be performed by Metro Vancouver, Industria, and Mcrae's Environmental and involves many workers and supervisory staff.

During the proposed shutdown, sanitary flow from the Gleneagles system will be suctioned out by hydrovac trucks at the Eagle Harbour grit chamber, which has been used successfully during previous work. The sanitary waste will then be transported to a drop location at Kensington Crescent Pump Station, where it will re-enter the GS 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 Metro Vancouver from completing the shutdown. Work would be postponed to a later date if it was unable to be completed on the proposed dates.

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 an additional street-occupancy permit (SOP).

Keith Road and Marine Drive

5508 Marine Drive and 5690 Keith Road are where the Applicant will be performing the tie-in work and two tee valve assembly installations. Residents will be exposed to regular construction noise for the duration of the shutdown.

Kensington Crescent Pump Station

Metro Vancouver's grit chamber and pump station 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 waste 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.

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 upstream and downstream locations of the existing force main. During this window, Metro Vancouver has contracted out 6 tanker trucks from Mcrae's Environmental.

Metro Vancouver observed daytime flow rates in the GS 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 KCPS grit chamber 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 A 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 more easily reduce 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 August 28, 2025 and August 29, 2025;
2. Extended hours permitted between 5:30 p.m. to 11:59 p.m. on August 28, 2025, and 12:00 a.m. to 6:00 a.m. on August 29, 2025;
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 must 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; and
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 Sanitary System Upgrade – Sewer Force Main Replacement) 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 5:30 p.m. to 6:00 a.m. on the dates of Thursday August 28, 2025, to Friday August 29, 2025, with the additional conditions contained in the report titled “Metro Vancouver Gleneagles Sanitary System Upgrade - Third Request for Order of Non-Enforcement of Noise Control Bylaw 4404, 2005”, dated June 20, 2025, be approved.

6.2 Considered Options

Council may:

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

7.0 Conclusion

Staff believe that the application is reasonable given the circumstances and reduces the length and severity 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 – Bylaw and Licensing Services Manager

Appendices:

Appendix A: Metro Vancouver Noise Variance Application Gleneagles Sewer Force Main Replacement Project

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District of West Vancouver Noise Variance Application

Gleneagles Sewer Force main replacement project





Abstract:

Metro Vancouver is requesting a noise variance permit from the District of West Vancouver to conduct overnight work in August 28th (weather dependable), 2025 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 including upstream and downstream sewer force main in order to install piping assemblies to support the replacement of existing sewer force main.. 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 1st, 2025

Metro Vancouver Project Team

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1.0 Project Background

The Gleneagles Sewer (GS) runs between five sanitary pump stations in a series known as the Gleneagles system. Pipe replacement will take place on the main line between Keith Road all the way to the manhole on Marine Drive at Greenleaf Road. 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. The Gleneagles Sewer 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 replacement of the existing force main pipe, a temporary bypass pump station and piping will be installed to maintain continuous pumping operations.

The noise variance permit is critical for the completion of the planned work for the GS. 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 replacing of the existing GS 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 on Marine drive and Keith Road. This will require cutting into the existing pipe, removing a section, and installing the tee valve assemblies. Installation of tee valve assemblies will allow for the bypass of the existing force main by rerouting flows to the newly constructed temporary bypass chamber. This will allow the Gleneagles system to operate as normal during the decommissioning and construction of the new GS. Figures 1, 2,3 and 4 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 GS and hence the system shutdown.

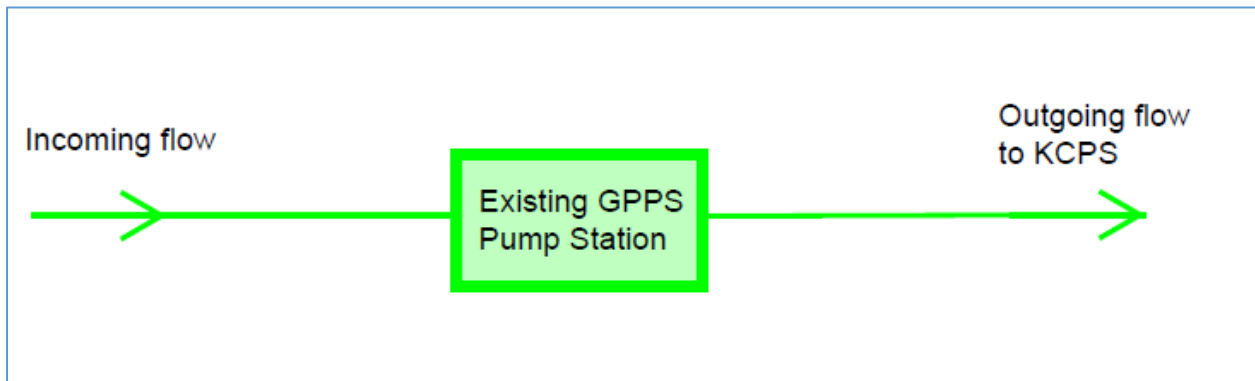


Figure 1 - Normal/Current Operation of Existing GPPS

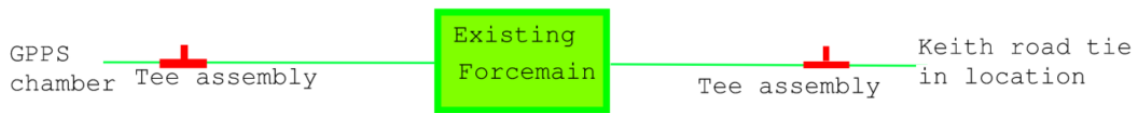


Figure 2 - Shutdown Period to Install Downstream Tee Assemblies



Figure 3 - Sanitary Flow Routed Through Temporary Bypass piping during Construction of New GS

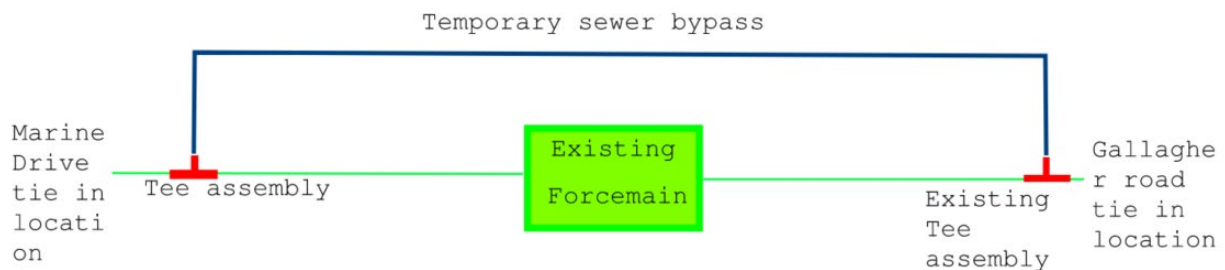


Figure 4- Sanitary Flow Routed Through Temporary Bypass Piping during Construction of New GS

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 GS upstream and downstream locations. Therefore, the proposed method to achieve no flow at the GS 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.

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.

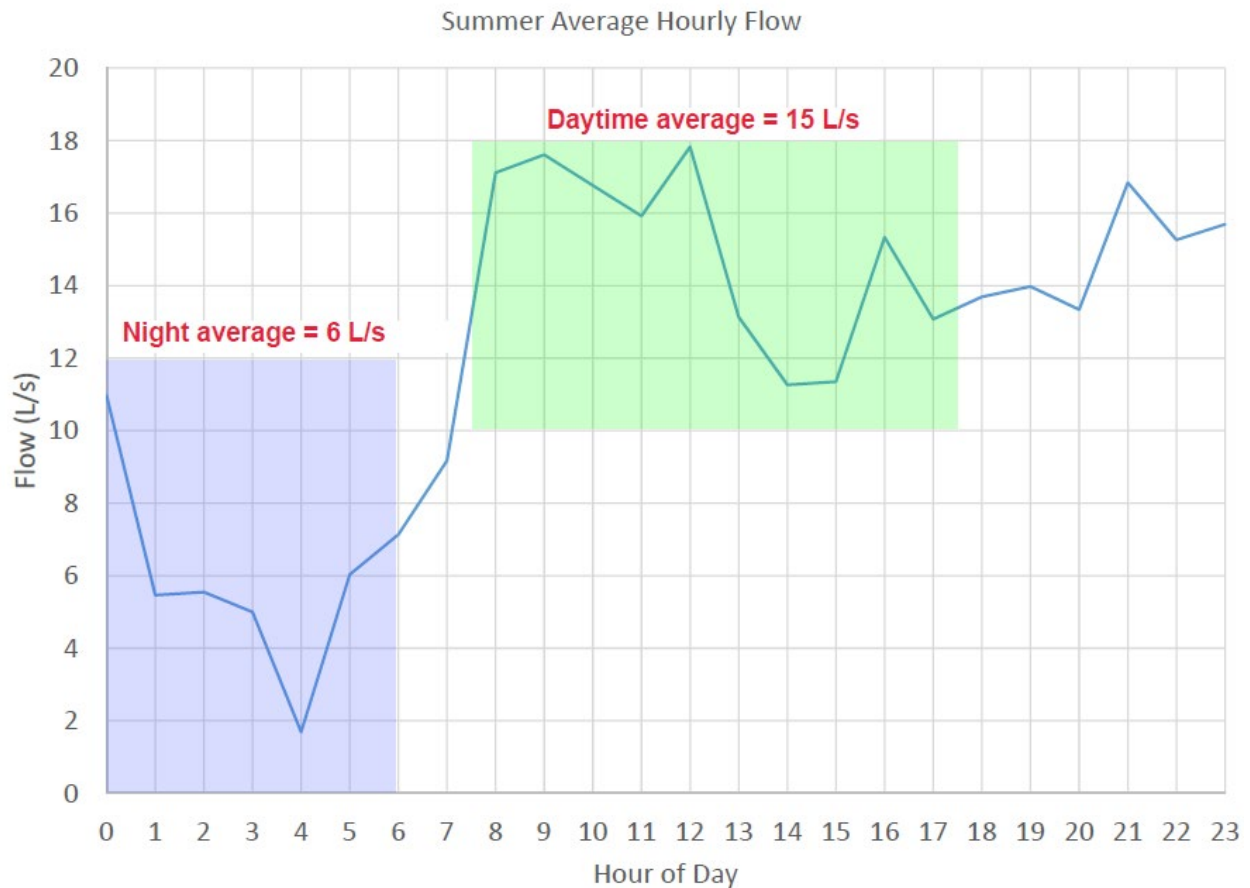


Figure 5 - Average Flow Rates throughout the day

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 Marine Drive and Keith Road

5508 Marine Drive and 5690 Keith Road 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.

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.