

Issues, Comments, Questions and Metro Vancouver Responses

Lions Gate Public Advisory Committee (LGPAC) Phase 2: Meeting # 2

December 9, 2015, 6:00 pm – 8:30 pm
Norgate Community Elementary School
1295 Sowden Street, North Vancouver, BC



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1. Welcome, Agenda Review and Opening Remarks

Andrea Winkler, Program Manager, Public Involvement, Liquid Waste Services, Metro Vancouver (MV), called the meeting to order at 6:05 p.m. and welcomed all to the Lions Gate Public Advisory Committee (LGPAC) meeting.

The objectives of the meeting are:

- Update LGPAC members on key plant design elements and LGPAC Phase 1 findings
- Introduce educational opportunities and approach, and obtain feedback from the LGPAC
- Obtain LGPAC's perspective on the siting an air quality monitoring station and develop a strategy for moving forward to obtain approval.

A tour of two Washington State secondary wastewater treatment plants has been approved (LOTT Alliance, Olympia & Brightwater Center).

Marnie Robinson, Facilitator, Context Research, reported that Diana Sollner and Rick Hancock, have been appointed Chair and Vice-Chair, respectively.

Ms. Robinson advised that David Knee, Norgate Park Community Association would be joining the meeting as a guest later in the meeting. The LGPAC agreed to allow Mr. Knee to participate in the discussions during the meeting.

The LGPAC accepted the agenda, as presented.

2. New Plant Design and Opportunities

Paul Dufault, Senior Engineer, Policy, Planning and Analysis, Liquid Waste Services, MV, led a review of a presentation titled "Project Design Elements" and highlighted:

- Overview of the site & visualizations of the completed LGSWWTP
- The goal of the public art component to translate technical concepts into more legible terms
- The project will be tendered with the heat pump as an option because it will provide the best opportunity for the development of a positive business case
- Renderings of the equipment that would be seen during a tour of the LGSWWTP
- The architects identified the roof as an opportunity to understand the full connection to the water; from the mountains, to the city and to the ocean
- Ultraviolet (UV) disinfection will be utilized before the wastewater is discharged

3. Findings of LGPAC Phase 1

Ms. Sollner led the review of a presentation titled "Community Values and Interest for Design".

4. Learning from the Washington State Tour

Jan Timmer, LGPAC member, reviewed the findings from the LGPAC1 tour of four secondary wastewater treatment plants in Washington State:

- Top insights:
 - Odours were completely eliminated in all but the oldest of the plants toured
 - Automation of monitoring saves operating costs
 - Future proof for tertiary treatment in the event that regulations change and to allow the water to be used for different purposes
 - Create community partnerships early
 - Develop satellite stations in neighbourhoods
- Lighthouse Point, Blaine
- Brightwater Center
- LOTT Alliance, Olympia
- Edmonds
- Photographs of exhibits at the Micropia Museum in Amsterdam.

5. Introduce Educational Opportunities for the LGSWWTP

Ms. Winkler reported that MV is developing an educational strategy well in advance of the opening of the LGSWWTP. There was full day workshop held on December 4, 2015 with a focus group comprised of 15 educators and education specialists from the North Shore and other areas of Metro Vancouver.

Tanya Melanson, Public Involvement, MV, provided a review of the key ideas that emerged from the focus group meeting. The meeting notes, *2015, December 4 – Education Workshop* are available under “Community Workshops” here:

www.metrovancouver.org/services/liquid-waste/consultations/lions-gate-wwtp/community-input/public-local-communities-meetings/

It was noted that MV plans to engage with Telus World of Science and the Vancouver Aquarium to further inform the education strategy. The LGPAC should consider how it wishes to be involved in the development of the education strategy and partnerships with neighbouring industries and the community.

6. Metro Vancouver and Air Quality

Ken Reid, Superintendent, Environmental Sampling and Monitoring, Air Quality, MV, led a review of a presentation titled “Metro Vancouver – Air Quality Monitoring” and highlighted:

- Overview of the Lower Fraser Valley air quality monitoring network:
 - 29 stations collect air quality, visual air quality and weather information
 - Stations in North Vancouver are located at Mahon Park and Riverside Drive
- Uses of the data, and MV reports and publications regarding air quality
- Generally, air quality has been improving in the region over the last number of decades
- Specialized studies augment the monitoring network

- The Burrard Inlet Area Local Air Quality Study (BIALAQS) monitoring, that was undertaken from July 2008 to June 2010, found that the Central Burrard Inlet Area experiences elevated sulphur dioxide (SO₂) levels from time to time, primarily due to marine vessels and petroleum refining in the eastern part of Burrard Inlet
- MV responses to address the BIALAQS findings:
 - Established more stringent interim ambient air quality objectives for SO₂ in 2015
 - Working with Port Metro Vancouver on a range of initiatives including additional monitoring for SO₂ and PM_{2.5} and the significant reduction of SO₂ emissions from marine vessels
 - Working with the Chevron Refinery to regulate SO₂ emissions
- A new air quality monitoring station in the Norgate Community would operate as part of the regional monitoring network.

Mr. Knee commented that the residents would like to have an air quality monitoring station in the community. There is increasing vehicular traffic on First Street and there is concern with an increase in truck traffic from the LGSWWTP and the amount of industry in the area.

Ms. Winkler led the review of a presentation and highlighted:

- The request to site an Air Quality Monitoring Station (AQMS) on the Norgate Community Elementary School grounds is still outstanding as the School Board has not approved the station.
- The appearance of traditional AQMSs and possible alternatives.

The LGPAC agreed that it would be helpful to support the AQMS as it arose from the recommendations of LGPAC1. It was suggested that the LGPAC and the Norgate Community Association join forces to support it being located at the Norgate Community Elementary School.

7. Next Steps and Closing Remarks

Ms. Winkler reviewed the next steps:

- A Washington State tour of two WWTP facilities will be scheduled
- A public meeting to provide an update on the project to the community is tentatively scheduled for January 27, 2016, dependent on venue
- An LGPAC meeting will be scheduled prior to the public meeting

Ms. Robinson requested that those members who have not submitted their biographies to do so and advised that the terms of reference of the LGPAC will be considered final unless further comments are received shortly.

8. Issues, Comments, Questions

The following table summarizes MV's responses to questions and concerns provided by attendees, organized by topic, throughout the meeting:

Issue, Comment, Question	MV Response
Heat Generation	
Do you have a purchaser for the heat that will be generated at the LGSWWTP?	We are in discussions with a third party for the potential purchase of heat generated at the LGSWWTP. There are also opportunities for effluent heat to be supplied to future district energy systems.
Would the heat supply the Lower Lonsdale area?	We are looking at the potential.
Inflow and Infiltration	
Do the inflow and infiltration (I&I) flows behave as indicated on the graph due to the mixing of sewage and stormwater into the sewer system?	They are separate sanitary and storm systems but a lot of rain water does enter the sanitary sewer system.
Are we trying to address I&I through the capacity of the plant?	The capacity of the LGSWWTP is capped. Larger pipes do not address I&I. I&I is a regional issue and needs to be addressed at the municipal level
Is I&I the result of failed pipes?	Half the collection system is located on private property and that is why it is so difficult to address. The sources of I&I are leaks from cross connections with stormwater systems, and leaky joints combined with high water tables during extended rain events.
	There is a project underway at MV to address the private lateral I&I issue i.e. all the connections from private residences to municipal pipes. Homeowners may not know the connections are there or that there is requirement to maintain them.
	The residential connections are on private property and would require regulatory changes to provide access and repair.

Issue, Comment, Question	MV Response
Do we have the opposite problem when it is dry and people stop flushing their toilets to conserve water?	No. Sometimes in the summer when it is warm, we have some permit issues due to the soluble organics. It is only an issue for the primary plants.
Funding	
Will we meet the timelines despite the fact that funding has not been announced?	We still expect the timelines to be met because it is a regulatory timeline. We are in the process of briefing the new federal government.
What happens if federal funding is not provided?	The MV Board's position to date has been that it requires senior government funding to proceed with the project.
Will the taxpayer be required to pay the full cost if there is no senior government funding? Has there been an analysis of how this would impact the individual taxpayer?	An analysis has been done. It is not as large an impact as had been originally anticipated.
Education Strategy	
What are we trying to achieve with the education program? Are we trying to change behaviour?	To create opportunities for residents to learn about the role MV plays in managing wastewater and understand their connection to the system. Wastewater treatment helps preserve the environment and protect public health. Education programs for schools and the public will be designed to illuminate these concepts and influence sustainable behaviour.
Air Quality Monitoring	
What data are you specifically collecting to measure air quality?	We are collecting common air contaminants i.e. gases such as ground level ozone, sulphur dioxide, carbon monoxide, nitrogen dioxide and very small particles in the air (such as fine particulate matter – PM _{2.5} and inhalable particulate matter – PM ₁₀). The health community has become more interested in the smaller particles that go through the body's defense system and can go into the lungs and bloodstream.

Issue, Comment, Question	MV Response
<p>For the particulate matter, do you actually collect and analyze the particulate matter as well as the mineral content in the solid phase?</p>	<p>For the most part we are just measuring the mass of particulate matter continuously. We are getting minute-by-minute or hourly readings. There are long-term stations in Burnaby, Abbotsford and Port Moody that collect samples that are analyzed in a laboratory to determine its composition in terms of metals, organics, etc.</p>
<p>The Norgate Community residents and the Norgate Community Association need to have a point of contact at MV with which to communicate their concerns.</p>	<p>There is an air quality complaint line to which you could provide information on specific issues, such as an observation of an industry emitting something or failing to suppress dust.</p>
<p>We have experienced CN trains idling for long periods of time at night. We were told that the new train engines shut down after ten minutes but they do not operate on the North Shore.</p>	<p>We would be interested in that; you can report it to the air quality complaint line. MV could use the information with Transport Canada with respect to engine emissions.</p>
<p>I read in the BIALAQS report that we cannot meet the Health Canada and World Health Organization guidelines because they are too stringent.</p>	<p>During the BIALAQS monitoring there were some stations in the Burrard Inlet Area that reported levels above the WHO guideline for SO₂.</p>
<p>Will there be any significant particulates emitted from the LGSWWTP?</p>	<p>There may be some particulates associated with combustion of biogas for cogeneration or heat - but very little. There are no particulates in the odour control.</p>
<p>There were complaints about West Coast Reduction when they located on Commissioner Street in the mid-1970s. I am concerned that odour is still being mentioned in the BIALAQS 40 years later. I hope this does not happen with the LGSWWTP.</p>	<p>West Coast Reduction is very different from the LGSWWTP. MV has pursued better controls at that site and it has been a top priority of our Environmental Regulation Group. We could provide you with more information on the proposed regulatory framework.</p> <p>West Coast Reduction is the top complaint facility. Odour can be difficult to attribute to the source without good meteorological information.</p> <p>We are including a very stringent level of odour management in the design of the LGSWWTP. We are managing all the elements that could create odours throughout the process.</p>

Issue, Comment, Question	MV Response
Do you have the power to require West Coast Reduction to change?	West Coast Reduction is regulated by an air emissions permit by Metro Vancouver. Changes can be made to the permit based on environmental monitoring data and other information.
Shaw Towers has very poor air quality because of the cruise ships running while in dock. Is it true that Port Metro Vancouver is providing power to the ships so that the motors are not required to run while in dock?	That is true, but not all ships have the equipment to receive the plug-in power. Port Metro Vancouver has implemented shore power for cruise ships and is now working to install similar facilities for container vessels.
Does Fibreco emit SO ₂ ?	Fibreco is not a significant source of SO ₂ .
What caused the ships to reduce their emissions? Was it a change in fuel?	There is an international regulation that requires that fuel with a maximum sulphur content be used within a certain distance of the coastline but it is hard to verify.
Are ships required to have different tanks of fuel to use while in port?	Some may have them but the older ships do not.
Norgate Air Quality Monitoring Station	
Are there other locations in MV where AQMSs are located at schools?	There are. It is very helpful to have the support of the Norgate Community Elementary School Vice-Principal. He wanted to have the children involved in touring the AQMS, using measurements and incorporating the AQMS into the curriculum.
Are you looking for other sites in the Norgate community?	We looked for possible sites. The school grounds were very attractive for exposure reasons. It is not confined or hidden amongst the trees. It has the added advantage of children and residences being present at this location. There is not a lot of unused land available in the area.

Issue, Comment, Question	MV Response
<p>Are we trying to establish a connection between the AQMS to the LGSWWTP?</p>	<p>They are separate programs but it is linked to the LGSWWTP because it came out of the process.</p>
	<p>We were looking for linkages in odour monitoring. We would also be conducting our own odour monitoring at the LGSWWTP.</p>
	<p>The Norgate AQMS would be part of the broader air quality monitoring and not be specific to the LGSWWTP.</p>
	<p>Air quality will be monitored separately from odour.</p>
<p>What are the drawbacks to having it at the Norgate School site?</p>	<p>The view of the AQMS itself may be a concern. In addition, the school may lose a small part of their field area.</p>
<p>Which corner is being proposed as the location of the AQMS?</p>	<p>We are considering the southeast corner.</p>

Attendance

LGPAC Members: Diana Sollner (Chair), Richard Hancock (Vice-Chair), Arlene King, Rene Kormos, Derek Lunden and Jan Timmer

Guests: David Knee (Norgate Park Community Association)

Metro Vancouver Resources: Tina Chui, Paul Dufault, Tanya Melanson, Ken Reid, Andrea Winkler and Lena Zordan

Process Facilitator: Marni Robinson (Context Research)

Recording Secretary: Carol Lee (Raincoast Ventures Ltd.)

Glossary of Terms and Acronyms

AQMS	Air Quality Monitoring Station
BIALAQS	Burrard Inlet Area Local Air Quality Study
CBIA	Central Burrard Inlet Area
I&I	Inflow and infiltration
PA	Project Agreement
PDR	Project Definition Report
Project Co.	Design-Builder (builder of the plant)
RFP	Request for Proposal
SO ₂	Sulphur dioxide