

**Lions Gate Public Advisory Committee
(LGPAC) Meeting #4
Lions Gate Secondary Wastewater
Treatment Plant (LGSWWTP)
*Summary***

**Comments, Questions and Metro
Vancouver Responses**





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ATTENDANCE

LGPAC Members: Christine Banham (Chair), Gonzalo Benitez, Darlene Clarke, John Croockewit, Blair East, John Hunter, David Knee, Louise Ranger, Adrian Rowland, Diana Sollner, Peter Thompson, Tracy Tilscher, Jan Timmer, Christianne Wilhelmson

Metro Vancouver Resources: Rick Bitcon (AECOM), Paul Dufault (MV), Laurie Ford (MV), Jaspal Marwah (MV), Robin Mills (MV), Fred Nenninger (MV), Dan Pitzler (CH2M Hill), Scott Wolf (Miller Hull), Jeff Cutler (Space2Place)

Process Facilitators: John Forsdick, Context Research and Marni Robinson, Context Research

Recording Secretary: Carol Lee, Raincoast Ventures Ltd.

1. Opening Remarks

Christine Banham, LGPAC Chair, called the meeting to order at 7:05 p.m.

Chair Banham reviewed the objectives for the meeting:

- To provide updates on flow projections, review IRR opportunities, and implications for design capacity
- To present the project evaluation framework
- To discuss and gather feedback on nine project design concepts.

Chair Banham introduced Jaspal Marwah, Policy Coordinator, Public Involvement Division, Metro Vancouver, who has recently joined the LGSWWTP Team and will be involved in managing the consultation and engagement with stakeholders. Mr. Marwah will be supporting the LGPAC and Community Resource Forum and other public involvement events.

Chair Banham advised that the LGPAC web portal has been established and some background information is currently available. Additional information will be posted to the web portal as the process progresses.

2. Technical Update: Flow Projections

Fred Nenninger, Project Manager, Wastewater Secondary Treatment Upgrades, Metro Vancouver, referred to a presentation providing updated information on flow projections during which he discussed:

- Average flows
- Wet weather flows
- Per capita wastewater generation and population projections
- Wastewater flow projections.

3. Sustainability / IRR Opportunities

Laurie Ford, Senior Engineer, Wastewater Secondary Treatment Upgrades, Metro Vancouver, provided a presentation on integrated resource recovery (IRR) opportunities during which she discussed:

- Potential inputs and potential products
- The treatment process and the potential products that can be recovered from the effluent



and solid streams

- Applications for potential products
- Potential resources under consideration for the LGSWWTP
- Potential impact on facility design.

4. IDP Workshops and Evaluation Framework

Fred Nenninger provided an update on the status of the IDP process, highlighting:

- Integrative design process and timelines
- Alternatives evaluation process.

Dan Pitzler, CH2M Hill reviewed the evaluation framework, highlighting:

- Decision and assessment framework
- Alternatives evaluation process
- Desirable characteristics of objectives
- Objectives hierarchy
- Example measurement scales
- Example consequences table
- LGPAC's input to inform the concept scoring and evaluation process.

5. Guided Tour of Concept Panels

Prior to beginning the tour of the panels, John Forsdick, Process Facilitator, Context Research, encouraged LGPAC members to consider elements of each concept that they like, dislike and would be valued in their communities and reminded participants that a discussion of these items would follow the tour.

Scott Wolf, of Miller Hull and Rick Bitcon, of AECOM, conducted a guided tour of the panels illustrating the nine concepts generated from the input received to date. Each of the concepts is distinct and each pair of panels provides an overview of the concept.

6. LGPAC Feedback on Design Options

John Forsdick facilitated a discussion on the design options.

The following comments, grouped by theme, were offered in response to the question "Which concept(s) or aspects of a concept – in your opinion are the most appealing to you and why?"

Ecology (Concepts 1, 7, 8)

- Regenerative design
- Passive onsite habitat
- Urban garden
- Tiered greenery

Flexibility (Concept 3)

- Adaptability
- Accommodate future population growth / technology
- Smaller footprint



Additional uses / Cost-effectiveness (Concepts 6, 9)

- Office space
- Multi-purpose community space
- Artist studios and incubator industries
- Complementary businesses
- Sustainable from a cost perspective
- Resource recovery if it is economic on an incremental basis

Integrated Resource Recovery (Concept 4)

- On-site IRR, but not trucking off site
- Feed the energy requirements of the industrial community

The following comments were offered in response to the question “Which concept(s) or aspects of a concept in your opinion are the least appealing and why?”

Potential issues with additional real estate development (Concept 9)

- Office space use could have issues due to location but artist studios could work
- Building height / visual impact of facility if it's of similar scale to surrounding heavy industry
- Competition with community amenities that are being constructed the community
- If too focused on community, could lose business uses
- Revenue generation from IRR (mandate) vs. increase in real estate value (outside Metro Vancouver's mandate)

Concern with uses for recovered nutrients (Concept 7)

- Potential for contamination from biosolids

Scott Wolf encouraged LGPAC members to continue to provide comments as they come to mind in the next few days by email to Jaspal Marwah. Another forum for exchanging comments is through the web portal.

7. Next Steps

Chair Banham advised that the next LGPAC meeting is scheduled for April.

Robin Mills, Policy Coordinator, Public Involvement Division reviewed the upcoming events. Dates have not been set for any of the events. The LGPAC members will be advised by email as the events are scheduled.

Chair Banham requested that the LGPAC members look more deeply into the design concepts and provide comments.

LGPAC commended and thanked the design team for all its time and effort.

The meeting concluded at approximately 9:40 p.m.



8. Comments & Questions

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

Comments & Questions	MV Response
FLOW PROJECTIONS	
What are the relative percentages of infiltration and inflow from industrial and residential lines?	In terms of wastewater flow, 49% residential, 10% commercial and 7% industrial. Residential is the largest component of wastewater.
It appears that storm sewers are connected to sanitary sewers due to the large inflows.	Inflow and infiltration is typical of wastewater systems across North America and across the world, with some variability. MV's system is neither the worst or best performer in terms of inflows, but improvements can be made.
Should we be prioritizing the incremental size of the sewage treatment plant or stopping infiltration and inflow?	The Liquid Waste Management Plan indicates that we will not be build treatment and conveyance capacity for excess infiltration inflow. We will manage it upstream with other systems.
If infiltration is on residential properties, it is difficult to address at the Metro Vancouver level.	Comment noted.
IRR OPPORTUNITIES	
Has MV talked to Fortis about district energy and the potential plant around Maplewood?	MV has talked to Fortis about district energy.
How would fats, oil and grease be collected for feedstock? Would it be trucked into the sewage treatment plant or would it be collected from garburators?	MV is considering trucking in the fats, oils and greases for this process. Fats, oils and greases generate a lot of biogas without producing a lot of biosolids.
Do you think garburators are good or bad for the new sewage treatment plant?	MV does not currently have a position on garburators in relation to the new sewage treatment plant.
MV may want to consider using marine transportation and barges instead of trucks to collect organic materials.	Comment noted.
What is MV's view on implementing the recommendations of the 2011 Fidelis report on integrated resource recovery?	The Fidelis report is a good starting point and has identified a number of opportunities that we are following up on as part of this process. However, we are looking more at a phased approach allowing future implementation rather than all at once.
Disagreement was expressed with the economics in the Fidelis report. The use of incremental economics to assess additional features was suggested as a possible alternative	Comment noted.



Comments & Questions	MV Response
What is the potential market for end products of wastewater treatment and what kind of growth is expected in the region?	MV has commissioned KPMG to do a market assessment for each of the end products, the potential revenue sources and the capacity of the market.
When will the KPMG report be completed and available?	MV expects it will be finalized later this year as part of the Lions Gate Secondary Wastewater Treatment Plant Project Definition report.
Will we be able to provide feedback and input on the IRR strategy for this project?	Any IRR strategies will be part of the concepts and plans presented and LGPAC will be invited to provide input on them.
EVALUATION FRAMEWORK	
Could MV divide the large number of objectives into “musts” and “wants” and then rank the “wants” in order of priority?	The detail in the evaluation framework will help us to understand those aspects that will make a good solid recommendation. The evaluation framework is a tool to look at the options at a very detailed level. We will need to develop the narrative for the preferred option to explain the benefits and trade-offs in relation to spending.
The narrative is really important. Are the objectives going to be weighted or prioritized in the consequence table? Or are the objectives equal and more qualitative?	No weighting will be done in the consequence table. It is not appropriate for us, as a design team, to say what is more important but we can explore the implications of that to get the essence of the concepts. We can make this clear when we develop the narrative for the recommendation for the preferred option.
Why is the design team not in a place to say what is important and what is not?	The relative importance of one objective over another (e.g. IRR compared to sustainability) is values-based, and therefore a policy decision to be made by the Board.
Are you going to prioritize selection criteria? If not, how are you going to arrive at a prioritized approach to decide what is and is not important in the process selection?	A prioritized list is one of the tools that we could use within our workshops to explore priorities. We will be exploring some of that within our team to determine what objectives are most important to make a good decision.
Concerns about the amount of detail in the objectives hierarchy.	Some of the details are things we have heard from the community and some of the things we have drawn from our experience from doing similar plants around the world. That is why we get the complexity. There are a lot of factors that go into such a complex undertaking. We will be looking at that in the detail and using the process to bring it down to something that we can explain to the community and the Board.
Support for the level of detail and the balance was excellent.	Comment noted.



Comments & Questions	MV Response
DESIGN OPTIONS	
<p>Similar projects have offered the public something unique and iconic including the Vancouver Public Library and the Vancouver Convention Centre. Members are encouraged to keep an open mind and consider more than finances at this point noting that if the project has a good story to tell and solves a problem, that people may be willing to pay for it.</p>	<p>Comment noted.</p>
<p>The additional revenue generation potential of the project may be outside the project's mandate and should therefore be approached with caution.</p>	<p>Comment noted.</p>
<p>Some design choices have a higher risk of odour emissions than others. How will this risk be prioritized?</p>	<p>Odour control is a priority for the project team and a high level of odour control is implied in all the concepts. However, there is a different degree of inherent risk of fugitive emissions for the different concepts and these are to be considered as part of the evaluation</p>
<p>Building height will likely be a concern that is expressed by the community, while another member noted that it may be seen as benefit in some cases (e.g., if it is a public space with 360° view).</p>	<p>Comment noted.</p>
OTHER ISSUES	
<p>Request for the concepts be posted to the LGPAC web portal or disseminated in paper form as soon as possible.</p>	<p>MV will send hard copies of the concepts as soon as possible.</p>
<p>Would it be possible to have the material emailed to LGPAC members instead of each member having to go to the website to download it?</p>	<p>MV staff will consider how to do this.</p>
<p>The term "revenue" should be changed to "positive return" in Fred Nenninger's presentation.</p>	<p>Comment noted.</p>