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To: ["Direct to Mayor and Council - DL"](#)

Date: 11/5/2021 12:33:21 PM

Subject: [Zero Waste Demonstration Hub Project Update – Market Sounding Summary](#)

Attachments: [Memo - Zero Waste Demonstration Hub Project Update – Market Sounding Summary.pdf](#)

[Appendix 1 - Memo - Upcoming Market Sounding for a Zero Waste Demonstration Hub.PDF](#)

Dear Mayor and Council,

Please see the attached memo from Lon LaClaire.

- The memo summarizes the results of the market sounding recently conducted with the clean technology community to gauge interest for the City and Vancouver Economic Commission (VEC) to develop a demonstration and incubation site for innovative technologies focused on zero waste at the City's former recycling receiving yard located within the southern industrial lands.
- The market sounding yielded significant interest in the concept and as a result, City and VEC staff will be exploring this opportunity further by implementing a low footprint pilot.
- The pilot will use existing budget to host 5 to 10 zero waste technology plants at the yard in order to assess the feasibility and long-term value of this innovation "sandbox" which could be used as a model for future sites within Metro Vancouver and across Canada.

If you have any questions, please feel free to contact Lon LaClaire at 604-873-7336 or lon.laclaire@vancouver.ca.

Best,
Paul

Paul Mochrie (he/him)
City Manager
City of Vancouver
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The City of Vancouver acknowledges that it is situated on the unceded traditional territories of the x^wməθk^wəyəm (Musqueam), Sḵwəxwú7mesh (Squamish), and səliłwətał (Tsleil-Waututh) Nations.

MEMORANDUM

November 5, 2021

TO: Mayor and Council

CC: Paul Mochrie, City Manager
Karen Levitt, Deputy City Manager
Katrina Leckovic, City Clerk
Lynda Graves, Administration Services Manager, City Manager's Office
Maria Pontikis, Director, Civic Engagement and Communications
Anita Zaenker, Chief of Staff, Mayor's Office
Neil Monckton, Chief of Staff, Mayor's Office
Alvin Singh, Communications Director, Mayor's Office
Patrice Impey, General Manager, Finance, Risk and Supply Chain Management
Alexander Ralph, Director, Supply Chain Management and Chief Procurement Officer
Albert Shames, Director, Solid Waste Management and Green Operations, Engineering Services
Bryan Buggiey, Director, Vancouver Economic Commission, Corporate & Sector Development
John McPherson, Sector Development Manager, Vancouver Economic Commission, Cleantech

FROM: Lon LaClaire
General Manager, Engineering Services

SUBJECT: Zero Waste Demonstration Hub Project Update – Market Sounding Summary

RTS #: N/A

The purpose of this memo is to provide Council with an update on the above-mentioned project with a focus on the recently performed market sounding. This update is further to our memo of May 25, 2021 entitled, "[Upcoming Market Sounding for a Zero Waste Demonstration Hub, a Repurposing of the Former Recycling Receiving Yard at 1198 E Kent Avenue S](#)" (Appendix 1).

Background

This project, a joint initiative between the City and the Vancouver Economic Commission (VEC), explores the development of a demonstration and incubation site for innovative technologies focused on Zero Waste at a 1-acre brownfield site located in the southern industrial lands. The project's objectives align with many of the City's policies, including the Zero Waste 2040

strategic plan approved by Council in 2018, and supports the development of green technologies and green jobs.

Market Sounding Results

The market sounding consisting of a webinar and online survey was conducted on June 17, 2021. Of the 80 people that attended the webinar, 31 surveys (39%) were received, an encouraging response that shows definite interest in the concept. 20 of those respondents were from British Columbia (almost 2/3rds) with most of those being located within Metro Vancouver. The respondents were mostly small clean tech businesses being between the post-laboratory and fully commercialized stages of development. The top three waste streams they addressed were food, construction and demolition (C&D), and plastics, which are all significant portions of the waste stream.

Almost half of the respondents were interested in funding opportunities that may be available to support commercialization, and all parties were interested in opportunities to meet potential corporate partners, something that fits well with the VEC's mandate.

The survey asked technical questions designed to assess if the respondents' pilot plant could physically fit and operate within the constraints at the site. Most of the proponents had technologies that would fit on site easily and could operate with self-supplied utilities, including power and water. This enables us to move forward with a solicitation to select proponents for an initial pilot project focussed on what we have termed a low cost, high value approach. Low cost as it requires minimal investment, which can be accommodated within existing budgets, from the City to prepare the site and high value as it allows innovative Vancouver-based technologies to grow their business opportunities.

The pilot approach also allows us to assess future benefits for this type of undertaking, potential funding opportunities, as well any future needs to improve the program. Pacific Economic Development Canada (PacifiCan) have expressed interest in being a part of this project even at this early stage. The VEC and PacifiCan view this as an innovation "sandbox" which if successful could be implemented across Canada as a model to significantly reduce waste as well as address climate change and green jobs targets.

Next Steps

With the encouraging interest in the concept gained from the market sounding, the next steps will be to:

1. Proceed with the site preparation and permitting process to accommodate proponents. We are planning for proponents to have access to the site for an initial duration of 2 years once permitting and site improvements are in place.
2. Undertake a fair and transparent selection process for the first pilot participants using Project Greenlight (www.projectgreenlight.io/), the targeted market call platform managed by the VEC.

Councillors may hear of this pilot project through their own networks, and City and VEC staff are available to answer questions. Further updates will be provided at key milestone points for the project.

If you have any questions, please contact Albert Shames, Director of Solid Waste Management and Green Operations directly at Albert.Shames@vancouver.ca or 604-873-7300.



Lon LaClaire, M.Eng., P.Eng.
General Manager, Engineering Services

604.873.7336 | lon.laclaire@vancouver.ca

Appendix 1: May 25, 2021 Memo to Council entitled:

“Upcoming Market Sounding for a Zero Waste Demonstration Hub, a Repurposing of the Former Recycling Receiving Yard at 1198 E Kent Avenue S.”

Provided as separate attachment.

MEMORANDUM

May 25, 2021

TO: Mayor and Council

CC: Paul Mochrie, City Manager
Karen Levitt, Deputy City Manager
Katrina Leckovic, City Clerk
Lynda Graves, Administration Services Manager, City Manager's Office
Maria Pontikis, Director, Civic Engagement and Communications
Anita Zaenker, Chief of Staff, Mayor's Office
Neil Monckton, Chief of Staff, Mayor's Office
Alvin Singh, Communications Director, Mayor's Office
Albert Shamess, Director, Zero Waste & Resource Recovery, Engineering Services
Bryan Buggie, Director, Vancouver Economic Commission, Corporate & Sector Development
John McPherson, Sector Development Manager, Vancouver Economic Commission, Cleantech

FROM: Lon LaClaire
General Manager, Engineering Services

SUBJECT: Upcoming Market Sounding for a Zero Waste Demonstration Hub, a Repurposing of the Former Recycling Receiving Yard at 1198 E Kent Avenue S

RTS #: N/A

The purpose of this memo is to advise Council on an upcoming opportunity to develop a Zero Waste Technology Demonstration Hub at the City's former recycling receiving yard, located at 1198 East Kent Avenue South. The exploration of this opportunity for development of a demonstration and incubation site for innovative technologies focused on Zero Waste on this 1-acre brownfield site is a joint initiative between the City of Vancouver (City) and the Vancouver Economic Commission (VEC). It is in alignment with many of the City's policies, including the Zero Waste 2040 strategic plan, and supports the development of green technologies and green jobs within the city.

Working jointly with the VEC and using the recently released project Greenlight framework, we will be undertaking a market sounding exercise to identify potential organizations that have interest, have a technology that has passed bench scale testing and is ready for a real world evaluation process, and will benefit from an opportunity to display their technologies. The goal of the Zero Waste Demonstration Hub is to:

- 1) Help companies commercialize (gain partners, investment, customers), increase green jobs, and reduce greenhouse gases (GHGs) among other environmental benefits, and
- 2) Provide City staff an opportunity to evaluate leading technologies that could be suitable for future City applications.

Background

In 2014, Council approved the Green & Digital Demonstration Program (GDDP): a VEC program that provides access to City assets and infrastructure (i.e. buildings, streets, vehicles, and digital infrastructure) for product testing and showcasing opportunities, as well as critical follow-on connections and business expansion support from VEC staff. VEC delivers GDDP in collaboration with the City. GDDP has since evolved into a regional demonstration initiative called Project Greenlight (PGL). Launched in March 2021, PGL will help forge strategic partnership opportunities between innovators and major asset-owners to 'accelerate smart and sustainable transformation'.

VEC's survey of local Cleantech companies in 2016, as part of its Greenest City Scholar Program, identified a major challenge for advancing green technologies in Vancouver. The major challenge identified was the lack of industrial land on which technologies could be tested and evaluated. A demonstration site was identified as a "missing link" in the efforts of GDDP applicants to build their businesses.

In 2017, after RecycleBC took over residential recycling programs in Vancouver, the City's Zero Waste & Resource Recovery division shut down operation of its recycling receiving yard located at 1198 East Kent Avenue South. This property is zoned as M2 industrial.

In 2018, Council approved Zero Waste 2040, which identifies the City as supporting zero waste technology, process research and incubation as a means to help achieve Vancouver's zero waste goal.

The City now has an opportunity to address these gaps and support the innovators with the creation of the Zero Waste Demonstration Hub.

Project Description

The objective of this project is to provide innovators with industrial space to pilot zero waste technologies. While the primary focus will be on zero waste related technologies, other green technologies that support broader City initiatives may also be considered.

The intent is that the hub will provide access to a suitably zoned, serviced, fenced and secured industrial space for companies in the process of commercializing their innovative technologies to perform pre-commercialization and proof-of-concept testing for a fixed period between 12-24 months.

The City would provide access to its waste and recycling materials for testing and would receive reports and details on how technologies perform. The City may also find that it benefits from the project outcomes with respect to greening our own operations.

Alignment with Policies and Programs

The proposed project is in alignment with the following policies and programs:

- **Zero Waste 2040:** Long-term disposal capacity risk identifies the City as supporting zero waste technology/process research and incubation as a means to help achieve Vancouver's zero waste goal.
- **Climate Action, Circular Economy:** The Climate Emergency Response report emphasizes the importance of establishing effective policies that address climate change through accelerated innovation in clean technology, green building technologies, advanced materials, local food, and solid waste and transportation options.
- **Greenest City Action Plan (GCAP):** Goal #9 Green Economy: Secure Vancouver as a mecca for green enterprise with a focus on expanding green jobs.
- **Green Operations and Engineering's Strategic Plan:** Goal #3 Lead the way on Green Issues and #5 Optimize Strategic Partnerships & Collaborations.
- **VEC 2021 Corporate Plan:** Pledge #2 Prioritizing Climate Action, and Goal #2: We strive to be a catalyst of change to support the evolution, prosperity and resilience of our local economy by focusing on its transition to a zero-carbon and more circular economy in addition to identifying opportunities to strengthen the local economy to thrive now and in the future.

Status

To date the following work has been undertaken:

- A conceptual design has been prepared;
- A site condition assessment and high-level budget estimate to prepare the site for use has been completed;
- City and VEC staff have developed a market sounding exercise to gauge market interest in the concept, which will consist of an online information session and survey.

Market Sounding

City staff and the VEC will be sending out invitations to an initial targeted group of companies based on City staff and VEC's knowledge of the industry, as well as to Cleantech industry associations such as Foresight Canada (<https://foresightcac.com/>).

The market sounding exercise will inform next steps which could include:

- Continuing to move forward with development of an initial pilot process as a further proof of concept, including a formal process of soliciting participants;

- Adjusting the concept to support the immediate needs of the Cleantech community, the City, and VEC as identified through the market sounding;
- Should there be insufficient interest from companies with zero waste technologies the opportunity will be opened up to other green technologies; or
- If it is determined that there is insufficient interest across the board the City can then proceed with repurposing the land for other purposes.

Councillors may hear of this market sounding through their own networks, and City and VEC staff are available to answer any questions.

If you have any questions please contact me directly via email (lon.laclaire@vancouver.ca) or phone (604-873-7336).



Lon LaClaire, M.Eng., P.Eng.
General Manager, Engineering Services

604.873.7336 | lon.laclaire@vancouver.ca

Name subject to change

Zero Waste Demonstration Hub

PROPOSAL, CONCEPT AND INFORMATION SESSION



Background

Municipal leaders globally are setting aggressive targets to reduce landfill waste and advance circular economy initiatives for the benefit of the environment and the community. A variety of policies and actions will be required outside of conservation, material reuse and repair as we shift to a circular economy.

Recognizing that innovative technology will play a key role in this transition, the **City of Vancouver** is exploring an opportunity with the **Vancouver Economic Commission** to provide industrial land to technology innovators for zero-waste pilots, as well as the resources and connections to scale.

Summary of Opportunity

Site details:

- » Paved, secured, fenced, and lit site with basic infrastructure
- » 1.1 acres total land

For who:

- » for innovative zero waste tech providers
- » co-locating for 18 to 24 months
- » post-lab, pre-commercial

Potential access to:

- » Input feedstock materials, buyers, and strategic partners

Next Steps?

Join us for an information session to:

- » Learn more about the site and the opportunity
- » Provide direct feedback

→ To sign up for the information session, please RSVP by emailing ZeroWasteInnovation@Vancouver.ca

- » Following the information session, we will send you an online survey to assess your requirements and need