

NO: R173

COUNCIL DATE: November 23, 2020

REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **November 19, 2020**

FROM: **General Manager, Engineering**

FILE: **0512-20 (CleanBC)**

SUBJECT: **CleanBC Communities Fund**

RECOMMENDATION

The Engineering Department recommends that Council:

1. Receive this report for information;
2. Endorse the application for grant funding for the Surrey City Energy Sewer Heat Recovery Project through the Investing in Canada Infrastructure Program's Green Infrastructure – Climate Change Mitigation Sub-Stream CleanBC Communities Fund; and
3. Authorize the Mayor & City Clerk to execute the related funding agreements with the Provincial Government for the aforementioned Project, should it be approved for funding.

INTENT

The purpose of this report is to obtain Council's support for the application to the CleanBC Communities Fund ("CCF") for grant funding of up to \$4.7 million for the Surrey City Energy ("SCE") Sewer Heat Recovery Project and to contributing the City's share of the eligible and ineligible costs and overages related to the project, estimated at \$25.3 million, if the grant funding is approved.

BACKGROUND

The CCF is a component of the wider Investing in Canada Infrastructure Program's ("ICIP") Green Infrastructure – Climate Change Mitigation Sub-Stream with an overall focus on reducing greenhouse gas ("GHG") emissions. The ICIP provides funding through an Integrated Bilateral Agreement between Canada and British Columbia for Green Infrastructure, Community, Culture and Recreation Infrastructure, Rural and Northern Communities Infrastructure, and Public Transit Infrastructure.

The CCF will fund infrastructure projects that support the management of renewable energy, access to clean energy transportation, improved energy efficiency of buildings, and the generation of clean energy.

The Federal and Provincial governments are investing up to \$47.39 million in the second intake of CCF to support infrastructure projects in communities across the Province.

Projects must meet criteria that relate to Federal outcomes in order to be eligible under the program. Eligible projects will improve or build new infrastructure, specifically tangible capital assets, as defined by the General Accepted Accounting Principles, that are primarily for public use and benefit.

A project must meet at least one of the following outcomes to be eligible:

- Increased capacity to manage renewable energy;
- Increased access to clean energy transportation;
- Increased energy efficiency of buildings; or
- Increased generation of clean energy.

Only one project per municipality may be submitted, the project must start within two years from the date of the application, and the project must be completed by March 31, 2026.

Funding guidelines indicate that there is no cap on the maximum allowable funding amount per project; however, consideration will be given to a fair distribution of funding. Guidelines further recommend that applicants should consider whether phasing is an option where project funding would represent more than 10% of the total funding available for the intake (\$4.739 million).

While the deadline for the application intake is November 12, 2020, a resolution endorsing the project must be approved by the appropriate authorized governing body, such as a Council, and submitted by December 12, 2020. The resolution support the City's grant funding application for the Project.

Surrey City Energy Sewer Heat Recovery Project

The SCE Sewer Heat Recovery Project (the "Project") involves the design and construction of a 6-megawatt sewer heat recovery ("SHR") facility in the Bridgeview area, which will generate low-carbon energy by using waste heat recovered from a Metro Vancouver regional trunk sewer. Heat recovered at the SHR facility will be used to fuel SCE, the City-owned district energy ("DE") utility, which is currently operating in the City Centre area and fueled primarily by natural gas boilers.

The Project site is located on the currently undeveloped portion of land at the southwest corner of the North Surrey Sport & Ice Complex, as illustrated on Appendix "I".

The Project is necessary for SCE to meet its objective of delivering low-carbon heat and hot water to residents and businesses in City Centre, which is an essential component of the City's plan to reduce GHG emissions from new and existing buildings in support of the November 2019 Climate Emergency Declaration and the Official Community Plan target of net-zero GHG emissions by 2050.

The Project will allow SCE to deliver heat and hot water at a very low GHG intensity to new buildings in City Centre, which may be required to meet future iterations of the BC Building Code. This service provided by SCE represents a simple and cost-effective opportunity for Surrey residents and businesses to meet future energy and GHG emissions requirements likely to be introduced for new buildings. The project is expected to contribute approximately 58% of SCE's total heating demand when it is completed in 2025.

FINANCIAL IMPLICATIONS

The total cost of the Project is estimated to be \$30 million, of which the CCF component is \$4.7 million. This leaves the remaining contribution of \$25.3 million to be covered by SCE. Funding for the Project is currently available within SCE's long-range capital plan, and should the Project be successful in receiving the funding from CCF, the remainder of the funding will be advanced into the City's Five-Year Financial Plan but solely funded through SCE's budget.

To further support the Project, staff have been coordinating with Metro Vancouver to determine infrastructure requirements and are working towards an agreement and a potential Metro Vancouver financial commitment to establish the SHR facility, as part of a broader proposal for establishing a region-wide process for supporting such systems, which will be subject to Metro Vancouver Board approval. This would further reduce this City's cost in advancing this project. A copy of Metro Vancouver's Letter of Support for the Project is included as Appendix "II".

Should the City be successful in receiving funds to support the Project, the need for future rate increases will be reduced improving the rate competitiveness relative to other heating services and SCE customers will benefit from low-carbon energy supply at an earlier date than otherwise possible. Future building code requirements that regulate GHG emissions could put SCE in a position of having to make such an investment whether the external funding is available or not.

Finance Department Review

The Finance Department has reviewed this report and has no concerns.

SUSTAINABILITY CONSIDERATIONS

Securing funding for implementation of the Project supports the objectives of the Sustainability Charter 2.0. In particular, this Project supports the Sustainability Charter 2.0 themes of Built Environments and Neighbourhoods, and Infrastructure. Specifically, this initiative supports the following Desired Outcomes ("DO"):

- Neighbourhoods & Urban Design DO9: All aspects of planning, design and construction include climate change impacts, GHG mitigation, adaptation, and resiliency strategies;
- Emergency Preparedness and Prevention DO8: The community's critical infrastructure and systems are designed to withstand climate change impacts, natural events and disasters, and include emergency response and reconstruction plans;
- Energy and Climate DO6: The City anticipates changing weather patterns and sea level rise as a result of climate change, and implements appropriate infrastructure, land use planning and emergency response solutions that will be resilient over the long term; and
- Energy and Climate DO7: Per capita emissions are low and align with global GHG reduction targets.

CONCLUSION

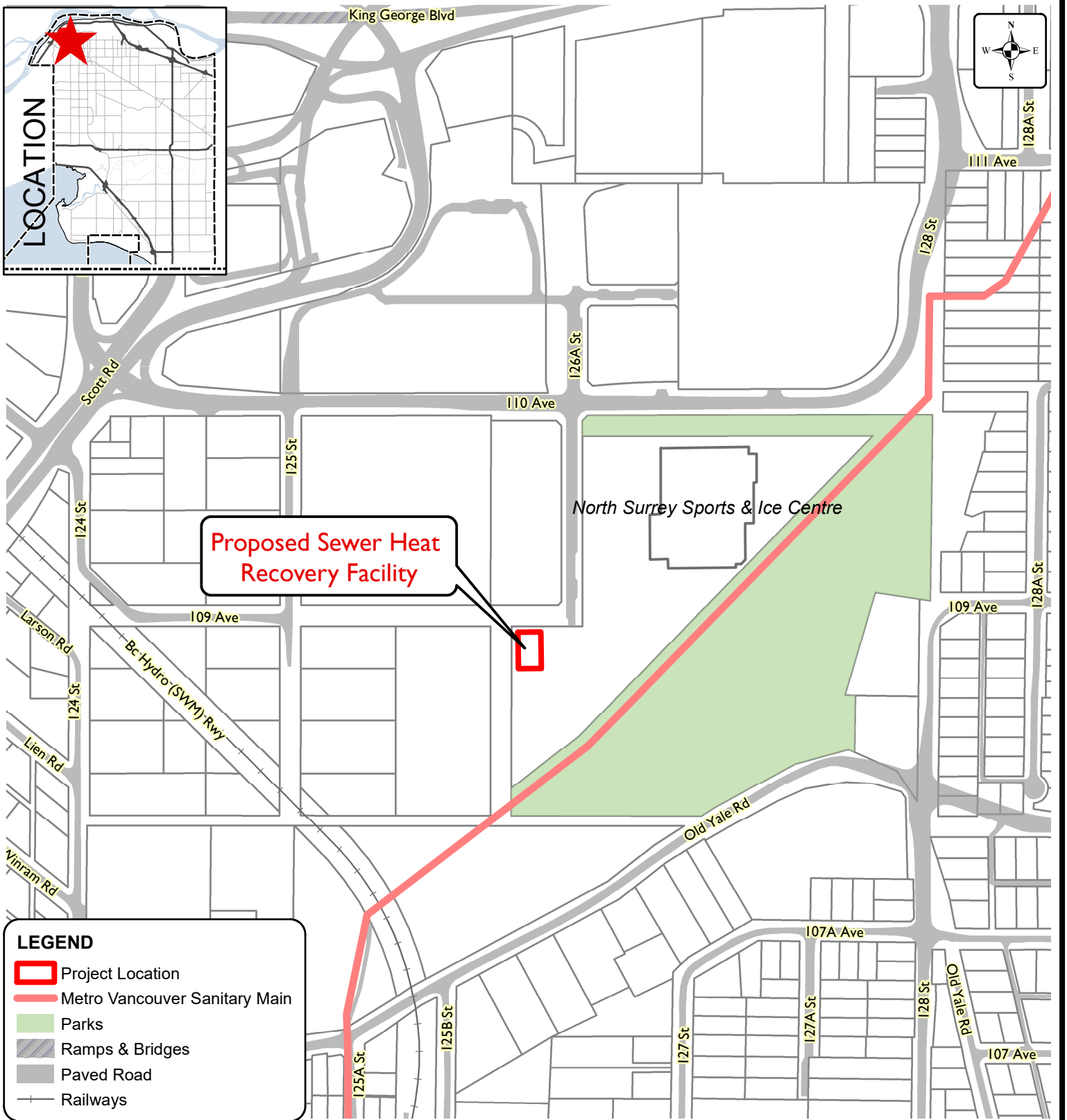
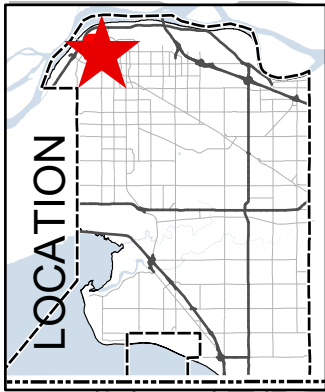
Based on the above, staff are seeking endorsement of an application through the CCF for \$4.7 million in grant funding for the Project, as described above and illustrated in the attached Appendix "I".

Scott Neuman, P.Eng.
General Manager, Engineering

JO/cc







Appendix "I" – Map of Project Location
Appendix "II" – Metro Vancouver Letter of Support

g:\wp-docs\2020\admin\cr\vl2 cleanbc communities fund.docx
CLR 11/19/20 4:27 PM

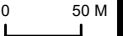


Proposed Sewer Heat Recovery Facility

LEGEND

-  Project Location
-  Metro Vancouver Sanitary Main
-  Parks
-  Ramps & Bridges
-  Paved Road
-  Railways

Produced by GIS Section: 12-Nov-2020, JJR

Scale: 1:5,000 



Sewer Heat Recovery Project

ENGINEERING DEPARTMENT

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, Legal descriptions and encumbrances must be confirmed at the Land Title Office.

Liquid Waste Services
Tel. 604 432-6489

November 5, 2020

File: CP-03-04

Scott Neuman, General Manager, Engineering
City of Surrey
13450 – 104 Avenue
Surrey, BC V3T 1V8
VIA EMAIL: sneuman@surrey.ca

Dear Mr. Neuman:

Letter of Support for City of Surrey's Application to the CleanBC Communities Fund

Metro Vancouver is pleased to support the City of Surrey's application to the CleanBC Communities Fund for the proposed North Surrey District Energy project.

As a regional government responsible for collecting and treating wastewater for our member municipalities, we are aware of the significant potential and environmental improvements that district energy systems that are fueled with clean energy sources can make within Canada.

The City of Surrey's proposed North Surrey District Energy system is an excellent example of such a system. Metro Vancouver supports the project, which is consistent with Metro Vancouver's strategic goals and policies as established in the *Integrated Liquid Waste Resource Management Plan*, our *Climate 2050 Strategic Framework* and our *Carbon Price Policy* that establishes a value for greenhouse gas emission reductions for consideration in life-cycle decision making.

Metro Vancouver and the City of Surrey have been coordinating to determine infrastructure requirements and are working towards an agreement and a potential Metro Vancouver financial commitment to establish the system, as part of a broader proposal for establishing a region-wide process for supporting such systems, which will be subject to Metro Vancouver Board approval. The Surrey system will provide heat extracted from sewage as a sustainable, low greenhouse gas emitting source of energy to local businesses and residents.

Metro Vancouver would be glad to provide additional information about our proposed collaboration and the potential for such systems to be sourced from renewable, clean energy sources like sewage, if such information will be helpful. We look forward to continue working with the City of Surrey to realize this innovative and beneficial project.

41874398

If you have any questions, please contact Jeff Carmichael, Division Manager, Business Development, Liquid Waste Services by phone at 604-456-8833 or by email at Jeff.Carmichael@metrovancover.org.

Sincerely,



Peter Navratil, P.Eng., MPA
General Manager, Liquid Waste Services

PN\RG\jc

cc: Jason Owen, Manager of Sustainability & Energy, City of Surrey
Emily Kwok, District Energy Engineer, City of Surrey
Rick Gallilee, Director, Management Systems and Utility Support, LWS, Metro Vancouver
Jeff Carmichael, Division Manager, Business Development, LWS, Metro Vancouver