

SCHEDULE E

Form of Completion Report for Studies

Please do not hesitate to contact your project officer to receive an electronic copy of the template of the Completion Report for Studies.

Upon completion of the Feasibility Study, a copy of the Final Study must be submitted along with this Completion Report for Studies.

FCM will post your report on the [Green Municipal Fund™ \(GMF\) website](#).¹ This is because one of FCM's mandates is to help municipal governments share their knowledge and expertise regarding municipal environmental projects, plans and studies. Before you submit a report to FCM, make sure you hold the copyright for the report (you own all the rights to the content and can decide who is allowed to reproduce and distribute the report) and that it does not contain any confidential information.

If the report contains confidential information, you need to submit two versions: one containing confidential information, to be read by FCM staff, and one that does not contain confidential information, which can be posted on the GMF website. Please contact FCM if you have any questions about copyright and confidentiality.

How to complete the Completion Report for Studies

The purpose of the Completion Report for Studies is simple: to share the story of your community's experience in undertaking a Feasibility Study with others seeking to address similar issues in their own communities.

Please write the report in plain language that can be understood by people who are not specialists on the subject. A Completion Report for Studies is typically in the range of 5–10 pages, but may be longer or shorter, depending on the complexity of the Feasibility Study.

GMF grant recipients must enclose **final** copies of the Completion Report for Studies and the Final Study, both in electronic format, with their final Request for Contribution. The reports, including all attachments and appendices, must be submitted in PDF format with searchable text functionality. Reports that are not clearly identifiable as final reports, such as those displaying headers, footers, titles or watermarks containing terms like "draft" or "for internal use only," will not be accepted by GMF. Additionally, reports must be dated. If you have questions about completing this report, please consult GMF staff.

¹ <http://www.fcm.ca/home/programs/green-municipal-fund.htm>

Completion Report for Studies

GMF number	15151
Name of lead applicant (municipality or other partner)	The Corporation of the City of Kingston
Name, title, full address, phone, fax and e-mail address of lead technical contact for this study	Nathan Richard City of Kingston 216 Ontario Street, Kingston, ON, K7L 2Z3 Phone: (613) 546-4291 x1325 Fax: (613) 546-3180
Date of the report	February 10, 2018

1. Introduction

- a) Who was involved in doing the Feasibility Study, and what are their affiliations? Please include name, title and contact information. Those involved could include municipal staff, engineers and other consultants, a representative from a non-governmental organization, and others.

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2. The Feasibility Study

- a) Describe the process that you undertook to make this feasibility study a reality, from concept, to council approval, to RFP, to final deliverable.

Several steps were required in the process to move this project forward.

1100 Montreal Street is a 0.5 acre brownfield property that has been abandoned for decades and has been revolving from tax sale status to failed tax sale status for many years. It was offered for sale twice by bid proposal under the failed tax sale program and has not generated satisfactory redevelopment interest through the failed tax sale process even with the City's demolition of a derelict building and recent adding of the potential for Brownfield Community Improvement Plan benefits.

The property has recently been regarded as being a gateway property and important to the Rideau Heights Regeneration Strategy if it were redeveloped using a municipally-led remediation and redevelopment model utilizing a request for proposals (RFP) approach.

The property was been acquired by the City of Kingston through the registration of a Notice of Vesting, which was recommended and approved by City Council in October 2015.

The property is located in what is called the Transitional Study Area and adjacent to the Core Study area for the Rideau Heights Regeneration Strategy. It is also adjacent to a several Non-Profit Housing Provider Lands located to the north and northwest. The long term revitalization vision of the non-profit housing located to the north and northwest is to demolish existing stock and a combination of building market housing (apartments) and build new non-profit housing.

This project includes undertaking a remediation program to make the property safe and suitable for redevelopment to neighborhood commercial and residential uses. The City will develop an RSC ready property with the inclusive of a Phase Two ESA, Remedial Action Plan and remediation of the property to obtain an RSC for residential standards from the MOECC. An RFI/RFP will be produced to solicit developer interest for the ownership and redevelopment of the property through a Request for Interest / Request for Proposals (RFI/RFP) process.

City staff forwarded a Report to Council that recommended vesting title in 1100 Montreal in 2015 and since then staff have continued to develop a more detailed estimate for environmental remediation and prepared the application for funding assistance to the FCM's Green Municipal Fund for funding for 50% of the cost of the Phase Two ESA. The City will also prepare a redevelopment model with guidelines that would be supportive of the Rideau Heights Regeneration Strategy.

Redevelopment designs guidelines will be set out in the RFP and will incorporate suggestions and recommendations from and supportive of the Rideau Heights Regeneration Strategy and from the Cities Housing department. Redevelopment of this property will add value to the adjacent properties, the immediate community and the new property tax base will be an overall city benefit.

Alternatively if the property was purchased by a private developer through a tax sale, they would almost certainly apply for Brownfield benefits and the City would be obligated to repay any remediation costs over time and without municipal intervention regarding the redevelopment form.

b) What were the objectives of the Feasibility Study (what was it seeking to determine)?

The City of Kingston issued a request for proposals to hire an environmental consultant to conduct Phase Two investigation work, produce a Phase Two ESA report and a subsequent Remedial Work Plan from the Phase Two findings. The study completed has detailed delineation of the contaminants on the property to minimize the amount of soil that would be removed from the site. Upon completion of remediation, the consultant will submit documents to MOECC to

obtain an RSC. The RSC documentation will be provided to the proponents of the redevelopment RFP.

A Remedial Action Plan was developed from the conclusions of the Phase Two ESA as per the future use plans of the property. The Remedial Action Plan evaluated remedial alternatives including estimated costs and time frames to complete the remediation.

Once the remediation is complete, the redevelopment/construction phase of the project will encourage sustainable building construction and design with a component within the RFP being evaluated for sustainable design and practices.

- c) What approach (or methodology) was used in the Feasibility Study to meet these objectives?

The scope of the Phase 2 ESA included drilling 5 boreholes with all having monitoring wells installed in them. Test pits were also advanced to a depth of the shallow bedrock in approximately 11 locations. Soil samples were collected from the boreholes and test pits for lab analysis along with on-site field screening of the soil and groundwater at the time of sampling. Monitoring wells were provided time to come to equilibrium and groundwater samples taken for lab analysis.

A survey was conducted to confirm the top of pipe elevations at the monitoring wells and calculate the groundwater table elevations, which allowed determination of groundwater flow direction on the property. Three wells were tested to estimate the hydraulic conductivity of the primary shallow aquifer(s) at the site.

Soil samples were submitted to a certified lab for analysis of polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOC's) and petroleum hydrocarbons (PHC's) in the F1 to F4 range.

Groundwater samples were submitted to a certified lab for analysis of metals, polycyclic aromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs) and petroleum hydrocarbons (PHCs) from all monitoring wells.

A Remedial Action Plan was devised based on the findings of the Phase Two ESA.

- d) Please describe any public consultations conducted as part of the Feasibility Study and their impact on the Study.

Public Consultations were not required as part of the Feasibility Study.

3. Feasibility Study Findings and Recommendations

- a) What were the environmental findings related to the options explored in the Feasibility Study? Please provide quantitative results and summary tables of these results (or the page numbers from the Feasibility Study report).

The Phase Two ESA noted exceedances of several contaminants in the groundwater including volatiles, hydrocarbons and semi-volatiles. The soils

tested as part of this work results in no exceedances. It was noted that previous Phase Two ESA investigations did result in contaminated soil samples. The overview summary of the findings within the report are on page 5-9 and 5-10 and the detailed tabulated findings are on Table 4 and 5 in the Tables section of the Phase Two ESA report.

- b) What were the financial findings related to the options explored in the Feasibility Study (for example, results of a cost-benefit analysis, financial savings identified, and so on)? Please provide quantitative results and summary tables of these results (or the page numbers from the Feasibility Study report).

The Remedial Action Plan (RAP) produced several clean up options based on the Phase Two findings. One approach to obtaining an RSC could be risk assessment for both the soil and groundwater. Another option was to remove the contaminated soil and disposing off-site and perform a risk assessment for only the groundwater. There were also several chemical injection methods offered to clean the groundwater.

The optimal case for the city in this circumstance is to ensure that we have a clean RSC, meaning all of the contaminated material is removed from the site and a risk assessment is not required. Going the route of risk assessment would hinder the RFP process to sell the property and would limit the number of proponents and possibly limit what could be constructed on the property.

The RAP provided a table (shown on page E4) that provided several options to clean the groundwater each with a separate cost, risk and time frame involved for each method.

The cities preferred method of remediation would be to remove contaminated soil and treat the groundwater with an injection program.

- c) Based on the environmental and financial findings above, what does the Feasibility Study recommend?

The RAP recommended removing any contaminated soil from the property and disposing off-site along with using a specific compound for injecting into the groundwater to reduce the level of contamination to meet the MOECC standards. The injection process could take 1.5 to 2 years at a cost of up to \$180,000.

4. Lead Applicant's Next Steps

- a) Taking the Feasibility Study's recommendations into account, what next steps do you as the municipality plan to take? What potential benefits or internal municipal improvements would result from these next steps?

The Municipality will take the information from the studies and plans to determine which course of action will be the most cost effective remediation approach and the most appropriate for the end use of the property. The Cities goal is to provide land that is clear of any contamination for an RFP that will see the property purchased and redeveloped by a private entity.

5. Lessons Learned

In answering the questions in this section, please consider all aspects of undertaking the Study — from the initial planning through each essential task until the Final Study was prepared.

- a) What would you recommend to other municipalities interested in doing a similar Feasibility Study? What would you do differently if you were to do this again?

One item observed during the process was that the initial survey, which was the survey that the environmental consultant performed their work from, included a portion of property that will become part of the road allowance. This portion will ultimately not be part of the property and could have been removed from the study.

- b) What barriers or challenges (if any) did you encounter in doing this Feasibility Study? How did you overcome them?

There were no significant barriers encountered as part of this feasibility study.

6. Knowledge Sharing

- a) Is there a website where more information about the Feasibility Study can be found? If so, please provide the relevant URL.

There is no website available.

- b) In addition to the Feasibility Study results, has your Feasibility Study led to other activities that could be of interest to another municipality (for example, a new policy for sustainable community development, a series of model by-laws, the design of a new operating practice, a manual on public consultation or a measurement tool to assess progress in moving toward greater sustainability)? If so, please list these outcomes, and include copies of the relevant documents (or website links).

The studies that were conducted were part routine fact finding for a contaminated property.

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