

## SCHEDULE F – PROJECT COMPLETION REPORT TEMPLATE

### VERY IMPORTANT:

**Timing:** You need to email a report, to your GMF project officer (contact info is in Schedule C), on the dates indicated in Schedule C or whenever FCM asks for such a report.

**Copyright:** Before you submit a report to FCM, make sure you hold the copyright for the report. If you're hiring a consultant to prepare the report, please make sure to get the copyright (see FCM's copyright tips document), or else FCM will not be able to disburse the Grant Amount.

**Accessibility for people with disabilities:** Please do not change the format, font, layout, etc. of this report. This template has been specially designed, following FCM's Accessibility Guidelines, in order to be accessible to people with disabilities.

**Confidentiality:** If your report contains any Confidential Information that you would prefer not be made available to the public (e.g. through a case study or other materials produced by FCM that relate to your Project), please submit two versions of the report:

- 1. Complete report including Confidential Information:** Please clearly label this report with the word "**Confidential**" or similar wording and FCM will treat it as confidential.
- 2. Abridged report excluding Confidential Information:** This report may be posted on the FCM website and otherwise made available to interested third parties, to help FCM meet its knowledge sharing objectives.

Please contact your project officer to receive an electronic copy of the Completion Report Template.

**Upon completion of the project, a copy of the Final Deliverable must be submitted along with this Completion Report.**

FCM will post your report on the [Green Municipal Fund™ \(GMF\) website](#). 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.

### How to complete the Completion Report

The purpose of the Completion Report is to share the story of your community's experience in undertaking your project 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 is typically in the range of 5–10 pages, but may be longer or shorter, depending on the complexity of the project.

GMF grant recipients must enclose **final** copies of the Completion Report and the Final Deliverable 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.

<b>Green Municipal Fund number</b>	16721
<b>Name of lead applicant (municipality or other partner)</b>	City of Parksville Engineering Department PO Box 1390, 100 Jensen Avenue East Parksville, BC V9P 2H3 O: 250 951-2484 F: 250 954-4657 E: Engineering@Parksville.ca
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<b>Date of the report</b>	March 7, 2022

#### a. Introduction

- a) This study was led by the Engineering Department, and involved staff from engineering, operations, finance, administration and communications; as well as technical consulting expertise as listed below:

<b>Parksville Staff</b>		
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<b>First Nations Stakeholders</b>		
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## b. 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.

In 2017, Parksville completed the Community Park Master Plan (CPMP) providing a 20-year plan for the community park involving 22 themed project areas of improvement to services and infrastructure with 61

action items for implementation. To date (2017), the Community Park had been excluded from previous engineering storm water modelling exercises; however, the level of investment and proposed uses triggered several of the recommended action items being geared around drainage, sea level rise, coastal erosion, water conservation, impacts from climate change. A scope of work was created, and a request for proposals was issued on BC Bids in the fall of 2018. The competition yielded only one respondent and was over budget; therefore, the project was carried forward to 2019 with an amended budget. The request for proposal was re-issued and in July of 2019, Council awarded the contract for the creation of the Parksville Community Park Stormwater Management Master Plan (PCPSMMP, The Feasibility Study) to Emmons and Olivier Resources Canada Inc. (EOR). In the summer of 2019, Parksville also applied for the Green Municipal Fund (GMF) offered by the Federation of Canadian Municipalities (FCM). Successful receipt of this grant allowed for expansion and increased scope in areas such as the survey, geotechnical investigations, archaeological impact assessment, stormwater monitoring, climate, rainfall, and coastal impact projections, wave setup and overtopping modeling, water quality treatment and public engagement. With the FCM GMF grant, the project proceeded forward from site assessments, design criteria development, design development, through to reporting and recommendations with the final report. Through each major step there were meetings between the consultant, sub-consultants, engineering staff, and operational and trades staff to ensure there was consensus on findings, approaches, and workable solutions before heading into the next steps.

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

The Feasibility Study objectives were to prioritize integration of stormwater into the landscape and community while also meeting technical goals including harvesting stormwater for reuse, reducing pollutants entering the ocean from stormwater runoff, and mitigating inundation of the stormwater system by sea water. To facilitate resiliency in the Park over the lifespan of the planned recreational infrastructure, an estimate of projected rainfall characteristics under climate change into the 2071-2100 range and extreme sea level inundation under the 2100 scenario were to be developed for use in modelling stormwater. The stormwater management facilities were to be designed based on cost-effective low impact development (LID) principles to honour the role of water in the Park and to ensure that the environment is protected when discharging stormwater into the ocean. An objective was to also engage with the local Coast Salish First Nations to ensure that designs developed in The Feasibility Study would meet multiple objectives by incorporating the natural history of the land and the community's strong ties with water along with water quality improvement and flood mitigation functionality. The Feasibility Study will provide the City with an implementation plan for stormwater that mirrors the planning milestones in the Community Park Master Plan to protect park users, park infrastructure and the receiving waters from stormwater flows as the Park is further developed. Stormwater quality improvements will be designed to meet or exceed removal of 80% of total suspended solids from the discharged runoff. It was our objective to introduce a financially feasible phased implementation aligning stormwater management facility construction with recreational facility construction while reusing existing infrastructure where possible. Facilities will be designed with interaction in mind, where education can be incorporated regarding the hydrologic cycle, ecology, and land-water processes, and in a manner that enables park visitors to see the water within the park as a valuable resource.

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

Recognizing that long range feasibility studies can tend to break down during implementation and through staff changes over the life of the plan; we held project meetings at each critical phase in the project (site assessments, design criteria development, design development, reporting and recommendations). These incremental meetings and involvement with the operations group and trades persons to explore all manner of conflict, reduce operational and maintenance resources.

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

There is a known archaeological site within the Parksville Community Park. With an Archaeological Impact Assessment for the entire Park being a prime deliverable, there was much less public consultation given the

sensitivities around that process as well as the technical nature of The Feasibility Study. First Nation consultation involved the representative chiefs of local first nations as well as their designated staff persons involved with the archaeological impact assessment process. The Feasibility Study was also made public by presenting it before Council for acceptance.

### c. 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).*

This study evaluated impacts from flooding due to climate change as well as coastal erosion while focusing on water quality as a key target to be kept in mind while managing water. A 'Treatment Train' philosophy was incorporated into the storm water management systems. This methodology is described in Section 5, page 54 of The Feasibility Study and is geared around minimizing pollutants at the earliest stage of the process as possible. It incorporates source control as well site controls through the conveyance systems, as well as end of re-use considerations and end of pipe treatments.

- 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).*

A detailed financial implementation plan is described in Section 5, page 86 of The Feasibility Study. The Financial Implementation Plan is laid out in a 20-year phased plan totalling \$7.2 million. The Financial Implementation Plan is tied to key areas of the Park and tied to projects and project areas from the Community Park Master Plan to allow for future Council flexibility. There are some project components that must take place in a specific order; however, these are outlined within the report to inform staff and Council when considering decisions around moving implementation phases.

- c) *Based on the environmental and financial findings above, what does the Feasibility Study recommend?*  
There are several implementation considerations recommended in Section 5, page 88 of the Feasibility Study; that include:

### d. 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?*

Parksville is exploring grant opportunities in preparation of planning its next long range financial plan. There are grant opportunities in the area of infrastructure, infrastructure planning, low impact development, and storm water management; however, exploring all of the grants (particularly recurring grants) available will help facilitate appropriate expectations around what grants maybe likely attainable for various phases of the implementation. It will help us better understand the likelihood and financial risks around implementing the Feasibility Study.

### e. 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?*

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

One of the barriers we came across when beginning this study was that the City, as an organization wanted to pursue low impact development storm water management tools, reduce our environmental footprint, and improve storm water runoff while reducing the likelihood and impacts of flooding. We found that when we started considering the background site assessment work and exploring design criteria for development that there was a lack of knowledge across the organization around what low impact development really meant to storm water management including operational considerations. We would recommend a municipality thinking about this type of study should consider expanding training and development across the organization. As well as workshops around the topic. It would have helped streamline the design criteria development phase of the project and helped the managers and foreman to better understand the operating and maintenance impacts as options were explored.

**f. Knowledge Sharing**

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

<https://www.parksville.ca/cms.asp?wpID=437>

- 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 bylaws, 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).*

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