

# Federation of Canadian Municipalities

## Review of the Green Municipal Fund **Final Report**

September 2019



Building a better  
working world





# Table of contents

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**EXECUTIVE SUMMARY .....2**

Introduction ..... 2

Objectives..... 2

Methodology ..... 2

Key findings and recommendations ..... 3

**INTRODUCTION ..... 6**

**REVIEW QUESTIONS AND CRITERIA ..... 9**

**METHODOLOGY ..... 11**

**REVIEW FINDINGS ..... 15**

Question 1: Does GMF continue to be aligned with key stakeholder priorities and does it realistically address an actual need? ..... 15

Question 2: What are the environmental, economic, and social benefits that have resulted from GMF-funded initiatives? ..... 17

Question 3: What are the environmental, economic, and social benefits that have GMF Knowledge Services helped promote?..... 19

**CONCLUSIONS .....24**

**APPENDIX A: REVIEW PROGRAM.....26**



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13 September 2019

## Report on the Review of the Green Municipal Fund

Dear Mr. Carlton:

We have now completed the engagement noted above and are pleased to present our report for your consideration. We trust the report will meet with your requirements and needs.

We have debriefed management on our findings and recommendations and will present the results of our report to the Green Municipal Fund ("GMF") Council on 20 September 2019.

This report is intended solely for the information and use of the Federation of Canadian Municipalities ("FCM"), parties to the Funding Agreement of the Green Municipal Fund, management, and Ministers and Parliamentarians. While we recognize that this report will be posted on the FCM website, we caution any readers other than those outlined above that it may not be appropriate for their purposes, and that they rely upon it at their own risk.

We would like to thank you and your team for the cooperation, assistance and courtesy extended to the EY team over the course of the project.

If you have questions or would like to discuss, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink that reads "Ernst &amp; Young LLP". The signature is written in a cursive, flowing style.

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Executive  
summary

# Executive summary

## Introduction

EY was engaged by the Federation of Canadian Municipalities (“FCM”) to conduct a Five-year Review and Performance Audit of the Green Municipal Fund (“GMF”), which is mandated by their Funding Agreement (“FA”) with the federal government. EY conducted the Review and Performance Audit in parallel. The scopes of the Review and Performance Audit span April 1, 2014 to March 31, 2019. FCM supported the Review and Performance Audit’s planning, conduct and reporting.

## Objectives

The Review aimed to address key performance areas related to GMF outcomes, design and relevance. The following Review questions were developed through preliminary document review and interviews.

Question #1	Does GMF continue to be aligned with key stakeholder priorities and does it realistically address an actual need?
Question #2	What are the environmental, economic, and social benefits that have resulted from GMF- funded initiatives?
Question #3	What environmental, economic, and social benefits have GMF Knowledge Services helped promote?

## Methodology

Our review work included:

- ▶ Document and file review
- ▶ Over 20 key informant interviews with FCM management and staff, GMF Council and FCM Board members
- ▶ Bilingual web-based survey distributed to over 400 recipients and non-recipients, yielding 87 responses (20.1% response rate) to assess the degree to which they are satisfied with GMF programming
- ▶ Three case studies in Sherbrooke (Quebec), Qualicum Beach (British Columbia), and Montague (Prince Edward Island) designed to assess GMF program operations and impact across sectors, and regions
- ▶ Quantitative data analysis of administrative data

Although distinct, the lines of evidence are mutually reinforcing, i.e. the document and file review informed the interviews, and the interviews, in turn, clarified concepts or questions that emerged out of the document and file review. Multiple lines of evidence were jointly employed to assess each objective.



## Key findings and recommendations

#1

Does GMF continue to be aligned with the key stakeholder priorities and does it realistically address an actual need?

GMF routinely monitors changing stakeholder priorities. Stakeholder engagement activities are outlined in a detailed and well-documented communications strategy and workplan containing outreach campaigns. GMF addresses the needs of municipalities in by providing funding for their infrastructure projects, developing products to strengthen municipalities' knowledge, and facilitating network development between municipalities with similar infrastructure aspirations and challenges. There are no recommendations for question 1.

#2

What are the environmental, economic, and social benefits that have resulted from GMF-funded initiatives?

GMF-funded projects generate triple-bottom line benefits that are reported in an Environmental Results Report ("ERR") (for Capital Projects only) and a Completion Report. These reports include results on primary environmental indicators mandated by GMF as well as other environmental, social and economic benefits.

- ▶ Observation 1: Social and economic benefits are reported to GMF in the ERRs and completion reports within a year after project completion. Interviews indicated that these benefits tend to develop over a longer period of time.
- ▶ Recommendation 1: GMF should continue to implement mechanisms for collecting information on the social and economic benefits generated by its funded projects in the long term.
- ▶ Management response 1: FCM agrees with this recommendation. As outlined by GMF Management in the ASPO 2019-20 and approved by GMF Council and FCM Board, GMF is implementing an economic performance measurement strategy built on current GMF modeling of local economic development benefits, to be able to measure the impacts of the deployment of projects with economic benefits (costs savings, job creation, contributions to local GDP). This strategy will be developed and added to GMF's overall performance management framework. GMF will continue to refine and implement more broadly the Local Economic Development (LED) model enabling GMF to articulate job creation, incremental GDP, and operating cost benefits of specific GMF funded initiatives. In fiscal-year 2018-19 GMF implemented a program to analyze the long-term benefits of GMF projects. This initiative started with a review of energy sector projects and continues this year with a review of waste sector projects. This practice will be continued across other GMF sectors of focus.

#3

### What environmental, economic, and social benefits have GMF Knowledge Services helped promote?

Knowledge sharing and capacity building for municipal government employees and their partners support GMF's strategic objectives and are obligations contained in the GMF Funding Agreement. Operating together with Funding Services, knowledge sharing and capacity building initiatives managed by Knowledge Services aim to broaden awareness of leading sustainability practices, encourage replication of sustainable infrastructure initiatives, deliver relevant training, share lessons learned, foster peer-to-peer learning communities, and disseminate relevant sustainability information and resources with the objective of realizing sustainability benefits.

- ▶ Observation 2: Knowledge resources are accessible on FCM's website and elsewhere online. However, knowledge resources are not organized into "learning journeys" that would enable users to select resources best suited to their needs and the needs of their municipalities.
- ▶ Recommendation 2: Develop common learning journeys to better organize knowledge products and services and impact.
- ▶ Management response 2: FCM agrees with this recommendation. As identified in ASPO 2019-20, particularly Work Package #6, work is underway to manage information collection and apply this to capacity building. Staff have been working to identify needs of online users at earlier stages with the Help Desk function. Additionally, work has been done over the past year to integrate sector development with capacity building early in program planning (i.e. Energy Roadmapping, new energy efficiency programs) that will streamline the types of resource offerings. Furthermore, a comprehensive online tool (Solution Explorer) is being developed to produce intuitive and easily accessible information on funded projects for a municipal audience. Lastly, a phased approach is being taken to integrate a set of consultant generated recommendations on how the presentation and design of GMF resources can be improved.
- ▶ Observation 3: Benefit realization measures have been limited to self-reported indicators collected mainly through surveys, interviews, and stakeholder engagement sessions.
- ▶ Recommendation 3: Continue to develop a knowledge impact strategy with short and medium-term performance measures that reflect a clear "theory of change" and that reinforces the GMF funding offer. Begin to gather data on impacts such as key municipal policy and strategy changes, brownfield site developments, and asset inventories.
- ▶ Management response 3: FCM agrees with this recommendation. The current self-reporting structure captures meaningful information that will continue to be of value. The Performance Measurement Framework, will bring improvements in data capturing and produce information needed to determine if a program or initiative is producing a meaningful return on investment and change. The intent to implement a longitudinal approach within a five-year framework is being explored; this could take the form of a program critical impact and financial (ROI per product/effort) expert review by a third party.





# Introduction

# Introduction

## Overview

Established in 2000, the Green Municipal Fund (“GMF”) is a \$625 million revolving fund administered by the Federation of Canadian Municipalities (“FCM”) and overseen by Natural Resources Canada, Environment and Climate Change Canada, and Infrastructure Canada. GMF provides grants, loans, and knowledge services to municipalities and their partners to support investment in projects designed to realize environmental and social benefits for Canadians.<sup>1</sup> GMF funds projects and produces knowledge services in five main sectors: energy, transportation, waste, water, and land use and integrated planning. The table below offers a breakdown of GMF’s main components.

Table 1: Overview of the GMF’s main components

Project name	Overview
Repayable loans	<p><b>Project types:</b> Municipal or partner capital projects</p> <p><b>Eligibility criteria:</b> Capital projects are eligible for below-market loans up to 80% of eligible costs not to exceed \$10 million.</p> <p><b>Disbursed since inception:</b> \$518 million<sup>2</sup></p>
Non-repayable grants	<p><b>Project types:</b> Technical and financial feasibility studies, field tests/pilot projects, plans, and municipal or partner capital projects</p> <p><b>Eligibility criteria:</b> Plans, studies and pilots are eligible for grants covering up to 50% of eligible project costs and capital projects are eligible for up to 15% of the loan value. Grants are capped at \$175,000 for plans and studies and \$350,000 for pilots.</p> <p><b>Disbursed since inception:</b> \$145 million<sup>2</sup></p>
Knowledge services	<p><b>Project types:</b> Publications, webinars, workshops, GMF funded projects database, peer learning</p> <p><b>Project example:</b> Partners for Climate Protection (“PCP”), Leadership in Brownfield Renewal (“LiBRe”), FCM Sustainable Communities Conference</p>

Source: FCM website.

<sup>1</sup> Announced in the Federal Government’s 2016 Budget, the \$500 million Fund received an additional \$125 million in fiscal year 2017-2018, bringing the total to \$625 million.

<sup>2</sup> Amounts disbursed in 2018-2019 not included.

Budget 2019 announced a further \$950 million in funding to increase energy efficiency in residential, commercial and multi-unit buildings. The federal government proposed to allocate the new funds towards 3 new initiatives as follows<sup>3</sup>:

Table 2: Description of new initiatives to increase energy efficiency in residential, commercial, and multi-unit buildings

Project name	Organizational Review
Collaboration on Community Climate Action	Provide municipalities and non-profit community organizations with financing and grants to retrofit and improve the energy efficiency of large community buildings as well as community pilot and demonstration projects in Canadian municipalities, both large and small. FCM and the Low Carbon Cities Canada Initiatives will create a network across Canada that will support local community actions to reduce GHG emissions.
Community EcoEfficiency Acceleration	Provide financing for municipal initiatives to support home energy efficiency retrofits. Homeowners could qualify for assistance in replacing furnaces and installing renewable energy technologies. The FCM will use innovative approaches like the Property Assessed Clean Energy (“PACE”) model that allows homeowners to repay retrofit costs through their property tax bills.
Sustainable Affordable Housing Innovation	Provide financing and support to affordable housing developments to improve energy efficiency in new and existing housing and support on-site energy generation.

Source: Federal Budget 2019.

## Approach and timelines

EY was engaged by FCM to conduct a Five-year Review and Performance Audit of GMF, which is mandated by their Funding Agreement with the federal government. EY conducted the Review and Performance Audit in parallel. The scope of the Review and Performance Audit spans April 1, 2014 to March 31, 2019. FCM supported the Review and Performance Audit’s planning, conduct and reporting.

This Review evaluates GMF relevance (i.e. alignment with stakeholder priorities) and the extent to which funding and knowledge services realized social, economic and especially environmental benefits. The Performance Audit assesses economy, efficiency and effectiveness of GMF as well as overall Funding Agreement compliance. Together, the reports provide evidence-based insight into the impact and value-for-money achieved by FCM and its partners during the in-scope period covering April 1, 2014 to March 31, 2019 and offers recommendations for improving the performance of the Fund going forward.

<sup>3</sup> Budget 2019



## Review questions and criteria



# Review questions and criteria

A Review plan was developed to address key performance areas related to GMF outcomes, design and relevance. Review questions and associated criteria resulted from a preliminary document review and key informant interviews. The specific review questions and associated criteria appear below.

Table 3: Review questions and associated criteria

Review questions	Review criteria
Question #1 - Does GMF continue to be aligned with key stakeholder priorities and does it realistically address an actual need?	1.1. GMF is aligned with key stakeholder priorities 1.2. GMF addresses an actual need
Question #2 - What are the environmental, economic, and social benefits that have resulted from GMF-funded initiatives?	2.1. GMF-funded initiatives have generated environmental benefits related to air quality, water quality, soil quality, and climate protection 2.2. GMF initiatives have generated economic benefits 2.3. GMF initiatives have generated social benefits
Question #3 - What environmental, economic, and social benefits have GMF Knowledge Services helped promote?	3.1. GMF Knowledge Services promote environmental benefits 3.2. GMF Knowledge Services promote economic benefits 3.3. GMF Knowledge Services promote social benefits

The complete review program including review criteria and lines of evidence are included in Appendix A.

Our review work included:

- ▶ Document and file review
- ▶ 20 key informant interviews with FCM staff, GMF Council and FCM Board members
- ▶ Bilingual web-based survey distributed to 432 recipients and non-recipients, yielding 87 responses (20.1% response rate) to assess the degree to which they are satisfied with GMF programming
- ▶ 3 case studies in Sherbrooke (Quebec), Qualicum Beach (British Columbia), and Montague (Prince Edward Island) designed to assess GMF program operations and impact across sectors, and regions
- ▶ Quantitative data analysis of administrative data

The following section outlines the core components of each line of evidence and describes our approach to integrating them.



# Methodology

# Methodology

This section describes the lines of evidence used to assess the Review objectives and associated criteria. Although distinct, the lines of evidence are mutually reinforcing, i.e. the document and file review informed the interviews, and the interviews, in turn, clarified concepts or questions that emerged out of the document and file review. Multiple lines of evidence were jointly employed to assess each objective. The process of integrating lines of evidence to assess criteria associated with each of the audit objectives is also described below.

## Document and file review

FCM's Project Authority provided the project team with an initial round of documents primarily related to governance, i.e. annual reports, the Funding Agreement, and a collection of strategic planning documents. Key informant interviews, an initial document scan, and consultations with the Project Authority identified additional documents, which the project team requested and the Project Authority promptly provided.

The examination of applicant files, reports and review checklists supported analysis related to relevance, program success and value-for-money analysis. Processing times, review process compliance, and consistent application of the selection criteria across files were addressed through the file review.

A non-statistical, risk-based judgmental sampling strategy was adopted to review GMF project files to evaluate the following criteria:

- ▶ Processes to determine project and recipient eligibility are efficient and effective
- ▶ Processes to assess, evaluate, and approve applications for funding are consistent with GMF's stated objectives
- ▶ GMF has developed service level targets related to applications, contract and disbursement processing to promote efficiency and effectiveness
- ▶ Mechanisms exist and are followed to ensure that GMF is being administered in compliance with Funding Agreement terms and conditions

The approach to selecting files for review was informed by consultations with GMF and documentation review. GMF provides grants (with the exception of brownfields) and below-market loans to finance sustainable capital projects. Of the 333 Board approved initiatives totaling roughly \$301M, 57 were capital projects totaling roughly \$269M.

Capital projects represented 90% of all approved funding in the last 5 years. Completed capital projects were prioritized as the Review and Performance assessed files throughout the application, contracting and benefits reporting phases. 10 samples, 8 capital projects and 2 feasibility studies, were selected across sectors and regions.

## Key informant interviews

Key informant interviews were designed to provide qualitative information related to economy, efficiency and effectiveness of GMF. The project team developed interview guides, including questions relevant for both the Review and Performance Audit, and provided to the Project Authority for review and approval. Interviews

were conducted with 20 key informants drawn from GMF Council, FCM Board members and FCM staff, including the Managing Director and all senior management at GMF. The interviews were conducted in person and by telephone (as required). Information gathered through the interviews was leveraged when assessing economy, efficiency and effectiveness. The questions posed to each key informant were based on their role within FCM/GMF, and they were provided with copies of the questions in advance to prepare.

## Web-based survey

To assess recipients and non-recipients' experience with GMF's funding and knowledge services, a bilingual, web-based survey was distributed by EY to all lead applicants who applied for GMF funding across all sectors and funding types covered under the scope of this Audit. This included 432 GMF recipients and non-recipients. 87, including 20 in French, were collected following an email invitation sent by the GMF Governance team. The survey combined open and closed-ended questions to gather information related to satisfaction with the GMF programs, program design, experience with program administration, administrative efficiency, service delivery, benefit realization and opportunities for improvement.

## Case studies


The case studies offer contextual insight into GMF-funded projects through interviews and site visits. The case vignettes targeted capital projects completed between fiscal years 2014 and 2019. GMF strategic priorities outlined in various Annual Statements of Plans and Objectives guided the judgmental sample. Selection considerations included: (1) sector focus without duplication, (2) at least one rural project, (3) regional balance between the six distinct regions, and (4) the inclusion of at least one project in Quebec. Although randomly selecting projects would reduce potential case selection bias, it would also reduce the opportunity to explicitly explore areas of strategic interest to GMF, and thus add comparatively less value to the organization going forward.

## Capital projects reviewed

- ▶ GMF 13091 – Qualicum Beach's Energy Efficient Fire Hall. The Town of Qualicum Beach built a new, energy, efficient fire hall that included solar photovoltaic panels, LED lighting and a heat recovery ventilation system to increase the building's overall performance without compromising operational functionality. This project is in the British Columbia region. The project was approved for a \$4.64M loan and a \$464,467 grant from GMF accounting for 73% of total project funding.
- ▶ GMF 13027 - Construction of a sorting centre for waste going to landfill in the region of Haut-Saint-François and Sherbrooke. The Valoris Intermunicipal Board built a sorting centre for waste going to landfill to achieve a diversion rate of over 60% for the municipalities of the Haut-Saint-François RCM and Sherbrooke. This project is in Quebec and was approved for a \$7.5M loan and a \$750,000 grant from GMF and accounted for 26% of total project funding.
- ▶ GMF 15047 – Montague Sludge Dewatering System. The Town of Montague installed a geotextile dewatering system that increased the quality of wastewater effluent and optimized facility performance. This project is in the Atlantic region (Prince Edward Island) and was approved for a \$307,270 loan and a \$46,090 grant from GMF, which accounted for 80% of total project funding.

## Integration of lines of evidence





Federation of Canadian Municipalities

Review of the Green Municipal Fund

Integrating the lines of evidence requires a structured, systematic approach to ensure the evidence base adequately addresses the Review criteria. A matrix approach was used to link relevant components of each line of evidence to the Review criteria. Findings against the Review criteria were developed based on the integration of the lines of evidence.



# Review findings

# Review findings

Question 1: Does GMF continue to be aligned with key stakeholder priorities and does it realistically address an actual need?

Alignment with stakeholder priorities is supported by well-documented and established governance.

GMF Council membership supports and enables alignment with key stakeholders. As mandated by the Funding Agreement, the Council is currently composed of 15 members and is equally divided into three categories. The Council's membership composition, regular meetings, and oversight of GMF planning, capital project funding, and long-term strategy reinforce stakeholder priorities. The Canadian Federal Budget 2019 announced an increase of \$950 million in funding to the GMF, and as a result, the new Funding Agreement will allow for the addition of three members to the Council.



Canadian Federal Government Representatives



Elected officials from Canadian municipalities



Experts from public and non-profit sectors

Interviews with Staff and Council members have consistently indicated that the alignment of key stakeholder priorities with GMF activities and priority areas is a key strength for GMF. GMF's Governance team bridges Council and GMF operations, helping to maintain alignment between GMF Council's and management. Prior to monthly Council meetings, the Governance team reviews the completeness of funding recommendation packages before submitting them to Council for decision and ensure that meeting materials are provided to Council in a timely manner to allow members ample time for review.

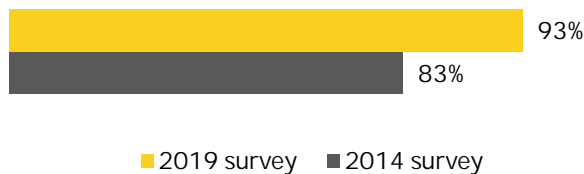
GMF routinely monitors changing stakeholder priorities. GMF uses surveys, feedback from the Sustainable Communities Conference, interviews and informal conversations to detect changes in stakeholders' priorities outside of Council. Stakeholder engagement activities are outlined in a detailed and well-documented communications strategy and workplan containing outreach campaigns.

GMF leverages FCM's outreach approach. FCM Programs' Communications and Marketing Logic Model identifies their ultimate outcome as "Target audiences engage with FCM to address local government priorities and initiatives" and an intermediate outcome as "Programs and initiatives are shaped by communications, outreach and stakeholder engagement". The Logic Model then illustrates that the achievement of these outcomes will be supported by activities such as external communications and market research and outputs such as strategic advice, plans and frameworks.

Historically, the Outreach and Funding Services teams have worked closely together to coordinate messaging, but interviews with GMF staff indicated that the organizational structure created challenges in communication. In 2018, Outreach was moved from Communications to Funding Services to more effectively integrate the teams and resolve the communication barriers.

The GMF has taken steps to adjust its organizational structure to better align its operations with stakeholder priorities.

Figure 1: More than 90% of 2019 survey respondents (n=87) indicated that the priorities of their municipalities are aligned with those of GMF, a nearly 10 percentage point increase from 2014 (n=107).



Source: GMF Funding Recipient and Non-recipient Survey (2019)

GMF addresses the needs of municipalities in by providing funding for their infrastructure projects, developing products to strengthen municipalities' knowledge, and facilitating network development between municipalities with similar infrastructure aspirations and challenges.

Interviews and survey data indicate that GMF-funding is crucial for completing projects in small municipalities and realizing triple-bottom line benefits projects. Project representatives noted that applying for GMF funding altered the design and targets of their original initiatives. Without GMF funding, such benefits may not have been considered, monitored or realized.

Fewer respondents believe that their projects would have advanced without GMF funding compared to five years ago. Roughly 33% of respondents indicated that their projects would have went forward, a nearly 6% decline compared to respondents in 2014, indicating that GMF is an increasingly critical source of capital for their sustainability initiatives

There are no recommendations associated with this question.



## Question 2: What are the environmental, economic, and social benefits that have resulted from GMF-funded initiatives?






GMF funded projects generated triple-bottom line benefits; compounding associated with longer-term benefit realization is not currently measured.

The Funding Agreement describes characteristics of eligible projects that cover potential environmental, economic and social benefits generated by GMF funded projects. These potential benefits are taken into consideration by GMF Staff, Peer Reviewers, Council and the Board prior to making a funding decision.

Upon completion, capital projects prepare an Environmental Results Report (“ERR”) and a Completion Report that provides results on primary environmental indicators mandated by GMF as well as other environmental, social and economic benefits. The ERR is validated by a Project Verification Officer at the GMF.

As part of its Annual Reports, the GMF reports the results of the primary environmental indicators in the ERRs as follows:

Table 4: GMF's funding sectors and associated primary performance indicators

	Sectors	Primary indicators to evaluate performance
	Brownfields	<ul style="list-style-type: none"> <li>▶ Land recovered</li> <li>▶ Contained media managed</li> </ul>
	Energy	<ul style="list-style-type: none"> <li>▶ Greenhouse gas emissions avoided</li> <li>▶ Criteria air contaminants emissions avoided</li> </ul>
	Transportation	<ul style="list-style-type: none"> <li>▶ Greenhouse gas emissions avoided</li> <li>▶ Criteria Air Contaminants emissions avoided</li> </ul>
	Waste	<ul style="list-style-type: none"> <li>▶ Waste diverted</li> </ul>
	Water	<ul style="list-style-type: none"> <li>▶ Water treated</li> <li>▶ Reduction in water use</li> <li>▶ Solid waste treated</li> <li>▶ Stormwater managed</li> </ul>

Source: GMF Annual Reports from FY 2014-15 to FY 2018-19.

File reviews and case studies highlighted the following economic and social benefits generated by GMF-funded projects.

**Economic:**

- 1) Cost savings from decreased energy usage
- 2) Employment of trades and local merchants for the building and maintenance of the project facilities
- 3) Increased property tax revenue

**Social:**

- 1) Improvements to public safety
- 2) Reduced opportunities for crime
- 3) Increased public education and awareness of green infrastructure
- 4) Municipal network building through FCM-facilitated peer learning sessions

Observation 1: Social and economic benefits are reported to GMF in the ERRs and completion reports within a year after project completion. Interviews indicated that these benefits tend to develop over a longer period of time.

Interviews with GMF Staff and case study projects highlighted that although economic and social benefits are reported to GMF via the ERRs and completion reports, they do not fully capture the benefits and their impact as they are submitted within a year of project completion. Social and economic benefits tend to develop over a much longer period of time.

A recommendation from the 2014 Review was to conduct interviews with projects three to five years after completion to better understand the experienced social and economic benefits.

- ▶ Recommendation 1: GMF should continue to implement mechanisms for collecting information on the social and economic benefits generated by its funded projects in the long term.
- ▶ Management response 1: FCM agrees with this recommendation. As outlined by GMF Management in the ASPO 2019-20 and approved by GMF Council and FCM Board, GMF is implementing an economic performance measurement strategy built on current GMF modeling of local economic development benefits, to be able to measure the impacts of the deployment of projects with economic benefits (costs savings, job creation, contributions to local GDP). This strategy will be developed and added to GMF's overall performance management framework. GMF will continue to refine and implement more broadly the Local Economic Development (LED) model enabling GMF to articulate job creation, incremental GDP, and operating cost benefits of specific GMF funded initiatives. In fiscal-year 2018-19 GMF implemented a program to analyze the long-term benefits of GMF projects. This initiative started with a review of energy sector projects and continues this year with a review of waste sector projects. This practice will be continued across other GMF sectors of focus.

## Question 3: What are the environmental, economic, and social benefits that have GMF Knowledge Services helped promote?

GMF has developed and deployed knowledge products and services that have generated sustainability benefits in the form of capacity building, knowledge sharing and distribution, and network development.

Knowledge sharing and capacity building for municipal government employees and their partners support GMF's strategic objectives and are obligations contained in the GMF Funding Agreement. Operating together with Funding Services, knowledge sharing and capacity building initiatives managed by Knowledge Services aim to broaden awareness of leading sustainability practices, encourage replication of sustainable infrastructure initiatives, deliver relevant training, share lessons learned, foster peer-to-peer learning communities, and disseminate relevant sustainability information and resources with the objective of realizing sustainability benefits.<sup>2</sup>

Knowledge Services outcomes and strategic direction are defined in various corporate planning and strategy documents, including GMF's Three Year Strategic Plan (2014-2017), the Knowledge Services Framework (2014-2017), and GMF's Five Year Plan (2018-2023), which includes an updated logic model, key results areas, Knowledge Services framework, and new areas of knowledge services development. Annual Statements of Plans and Objectives and Annual Reports that span the period in question further operationalize and report on Knowledge Services results.

### Capacity building

Capacity building refers to the acquisition of relevant competencies, skills, knowledge, and experiences that enable individuals or organizations to accomplish new tasks. Between 2014 and 2019, GMF sponsored three leadership development programs, including Leadership in Brownfield Renewal ("LiBRe"), Leadership in Asset Management Program ("LAMP"), and Partners for Climate Protection ("PCP"). A recent independent evaluation of Knowledge Services found that municipalities that participated in these programs were more likely to apply for GMF funding. Although programs were rated favorably in surveys and feedback responses from participants, no impact data on how capacity may have translated into more brownfield revitalization, increases in sustainability-minded asset management practices, or creation of new climate change actions or strategies were gathered.

- ▶ LiBRe: A national, bilingual peer-learning program focused on building municipal capacity to redevelop brownfields using GMF's 7 step framework and other best practices. The program included webinars, deliverables, networking, and coaching. Survey data from LiBRe participants shows positive opinions from participants.
- ▶ LAMP: was a selective, national peer-learning program focused on building municipal capacity to improve sustainability-focused asset management practices in municipalities. LAMP aimed to incorporate sustainability considerations into fixed infrastructure planning, building, operations, and maintenance. Participants worked collaboratively on common projects. The Climate and Asset Management Network ("CAMN") replaced LAMP and members were rolled into the new network by 2018.
- ▶ Partners for Climate Protection: component of the Cities for Climate Protection ("CCP") network of the International Council for Local Environmental Initiatives ("ICLEI"), PCP supports capacity

building through events, awards, mentorship, distribution of knowledge products, and encourages municipal adoption of a framework for developing a Greenhouse Gas (“GHG”) emissions inventory, monitoring and reporting practices, and action plan.

## Knowledge product development

GMF develops and distributes knowledge resources in support of sustainability objectives, program and results areas. FCM’s web-based library of case studies, guides, leading practices, webinars, spotlights, and other knowledge resources is keyword searchable and filterable by topic (e.g. asset management), type (e.g. report), and program (e.g. Green Municipal Fund) (<https://fcm.ca/en/resources>). FCM maintains an approved projects database, which was reviewed and updated in 2016 to improve quality and consistency.

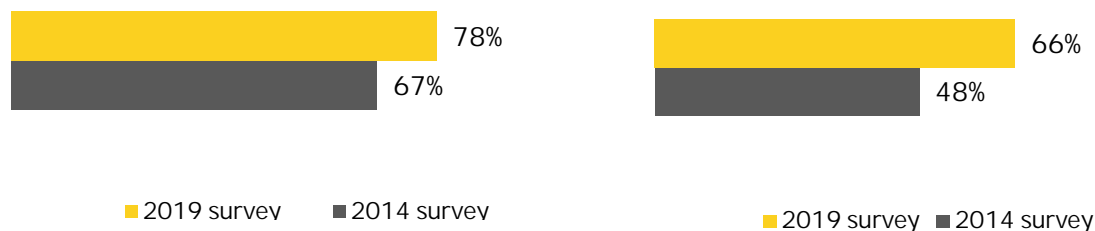
Knowledge products consistently focused on areas of priority, particularly related to brownfields, asset management, climate change actions, and replication programming for wastewater sectors. Annual reports demonstrate consistent development and delivery of learning materials and activities that are unambiguously aligned with FCM strategic direction in the areas of asset management, brownfields revitalization, waste water, and climate action.

Consistent with positive feedback gathered by GMF with respect to its knowledge products and services, close to 80% of respondents to EY’s 2019 survey used GMF knowledge resources to help their municipalities; 66% reported that the absence of GMF knowledge resources would negatively impact their municipalities. Compared to 2014, more respondents agreed or strongly agreed that knowledge services have made a difference for their municipalities.

Figure 2: Responses to EY’s 2019 Survey showed that the GMF’s knowledge offerings has become increasingly valuable to municipalities.

The share of respondents in 2019 (n=87) agreeing or strongly agreeing that GMF knowledge resources or activities helped their municipalities achieve its objectives increased compared to EY’s 2014 survey (n=107).

Similarly, more respondents in 2019 (n=87) agreed or strongly agreed that if GMF knowledge services went away, their municipalities would be negatively impacted in 2019 than did those responding to EY’s 2014 survey.



Source: GMF Funding Recipient and Non-recipient Survey (2019)

Performance and impact measurement of knowledge products were based on web-based analytics such as unique pageviews and downloads. Impacts of knowledge products beyond these figures were not gathered. Further, variability in access, baselines for reach, or targets were not established, making anticipated impacts or benefits difficult to discern beyond being aligned with either GMF focus area or cross-cutting sector resources. Clear learning “journeys” have not been established for different capacities or varying municipal requirements.



Observation 2: Knowledge resources are accessible on FCM’s website and elsewhere online. However, knowledge resources are not organized into “learning journeys” that would enable users to select resources best suited to their needs and the needs of their municipalities.

- ▶ Recommendation 2: Develop common learning journeys to better organize knowledge products, services and impact.
- ▶ Management response 2: FCM agrees with this recommendation. As identified through the ASPO 2019-20, particularly Work Package #6, work has been underway to manage information collection and apply this to capacity building. Staff have been working to identify needs of online users at earlier stages with the Help Desk function. Additionally, work has been done over the past year to integrate sector development with capacity building early in program planning (i.e. Energy Roadmapping, new energy efficiency programs) that will streamline the types of resource offerings. Furthermore, a comprehensive online tool (Solution Explorer) is being developed to produce intuitive and easily accessible information on funded projects for a municipal audience. Lastly, a phased approach is being taken to integrate a set of consultant generated recommendations on how the presentation and design of GMF resources can be improved.

## Network development

FCM network development for new and experienced practitioners in infrastructure sustainability across Canada. FCM held conferences, hosted networking events, attended sector conferences, delivered webinars, and held training workshops among other in-person and virtual events each year that contributed to network development. As well, participants in capacity building peer learning and leadership development activities described in the previous section also contributed the development of a differentiated, pan-Canadian network of sustainability practitioners and enthusiasts.

**78%** of applicants for GMF funding that **used one or more knowledge products during their application**, an increase from 73% of funding recipients in 2014 (Source: EY Survey of Recipients and Non-Recipients, 2019, 2014, (N=107)).

**70%** of 2019 survey respondents agreed or strongly agreed that their **professional network in support of sustainability has expanded** because of GMF activities, similar to 2014. (Source: EY Survey of Recipients and Non-Recipients, 2019, 2014, (N=107)).

Feedback from FCM’s conferences and stakeholder consultations similarly indicate consistently positive experiences associated with network development activities.

## Recent knowledge services changes

GMF’s Knowledge Services recently refreshed its strategy, moving from a three-year to five-year plan in 2018. A new plan and performance measurement framework were developed that capture the range of knowledge products produced as well as associated performance measures that focus, like pre-2018 knowledge services performance measures, on self-reported satisfaction scores, self-reported beliefs that

knowledge products will be applied in the future, and self-reported beliefs that knowledge products had an impact with respect to capacity building or improved understanding. Knowledge products continue to be aligned to current strategic initiatives and are available on FCM's website and YouTube. Knowledge Services' mandate included sector development responsibilities as of 2018.

Observation 3: Benefit realization measures have been limited to self-reported indicators collected mainly through surveys, interviews, and stakeholder engagement sessions.

Self-reported impact measures were not complemented with independent data linking knowledge projects and services to expected changes in outcomes of strategic interest such as project replication likelihood, municipal sustainability (asset management) or climate action plan and strategy development growth, growth in municipal infrastructure condition inventories, brownfield site revitalization, and similar downstream impacts consistent with GMF's sustainability mandate. Based on interviews, FCM is aware of these challenges and is working to address them by developing a knowledge impact strategy.

- ▶ Recommendation 3: Continue to develop a knowledge impact strategy with short and medium-term performance measures that reflect a clear "theory of change" and that reinforces the GMF funding offer. Begin to gather data on impacts such as key municipal policy and strategy changes, brownfield site developments, and asset inventories.
- ▶ Management response 3: FCM agrees with this recommendation. The current self-reporting structure captures meaningful information that will continue to be of value. The Performance Measurement Framework, will bring improvements in data capturing and produce information needed to determine if a program or initiative is producing a meaningful return on investment and change. The intent to implement a longitudinal approach within a five year framework is being explored, this could take the form of a program critical impact and financial (ROI per product/effort) expert review by a third party.



# Conclusion

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Question 1: Does GMF continue to be aligned with key stakeholder priorities and it does it realistically address an actual need?

GMF routinely monitors changing stakeholder priorities. Stakeholder engagement activities are outlined in a detailed and well-documented communications strategy and workplan containing outreach campaigns. GMF addresses the needs of municipalities in by providing funding for their infrastructure projects, developing products to strengthen municipalities' knowledge, and facilitating network development between municipalities with similar infrastructure aspirations and challenges. EY's survey sent to funding recipients and non-recipients found a high level of alignment between the priorities of the GMF and respondents' municipalities.

Question 2: What are the environmental, economic, and social benefits that have resulted from GMF funded initiatives?

GMF-funded projects generate triple-bottom line benefits that are reported in an Environmental Results Report ("ERR") (for Capital Projects only) and a Completion Report. These reports include results on primary environmental indicators mandated by GMF as well as other environmental, social and economic benefits such as cost savings from decreased energy usage and improvements to public safety. It was noted that the current reporting mechanisms, which are completed within a year after project completion, may not fully capture all social and economic benefits generated by GMF-funded initiatives as these benefits tend to develop over a much longer period of time.

Question 3: What environmental, economic, and social benefits have GMF Knowledge Services helped promote?

Knowledge sharing and capacity building for municipal government employees and their partners support GMF's strategic objectives and are obligations contained in the GMF Funding Agreement. Operating together with Funding Services, knowledge sharing and capacity building initiatives managed by Knowledge Services aim to broaden awareness of leading sustainability practices, encourage replication of sustainable infrastructure initiatives, deliver relevant training, share lessons learned, foster peer-to-peer learning communities, and disseminate relevant sustainability information and resources with the objective of realizing sustainability benefits. Opportunities for improvement were identified with regards to improving benefit realization measures for knowledge products and better organizing knowledge products to enable users to select resources best suited to their needs.





# Appendix A: Review program

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Review Objectives	Review Criteria	Document and File Review	Analysis	Interview and Case Vignettes	Survey
<b>Question #1</b> - Does GMF continue to be aligned with key stakeholder priorities and does it realistically address an actual need?	1.1. GMF is aligned with key stakeholder priorities	X	X	X	X
	1.2. GMF addresses an actual need		X	X	X
<b>Question #2</b> - What are the environmental, economic, and social benefits that have resulted from GMF-funded initiatives?	2.1. GMF-funded initiatives have generated environmental benefits related to air quality, water quality, soil quality, and climate protection	X	X	X	X
	2.2. GMF initiatives have generated economic benefits	X	X	X	X
	2.3. GMF initiatives have generated social benefits	X	X	X	X
<b>Question #3</b> - What environmental, economic, and social benefits have GMF Knowledge Services helped promote?	3.1. GMF Knowledge Services promote environmental benefits	X			X
	3.2. GMF Knowledge Services promote economic benefits	X		X	X
	3.3. GMF Knowledge Services promote social benefits	X		X	X
	3.4. Recipients of GMF Knowledge Services are satisfied with the GMF	X		X	X

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