GREEN MUNICIPAL FUND
FONDS MUNICIPAL VERT

2019-2020 ANNUAL REPORT

APPENDICES

a program of FCM

funded by Canada

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These appendices contain a detailed account of our efforts throughout the fiscal year, from funding allocations to our activities' reach and details about approved initiatives. They're a great way to better understand our real-world impact.

Appendix A: Funding allocations

Table A1: Number of applications and approvals for sustainable community plans, feasibility studies and pilot projects

	2019-2020	Since inception
Applications submitted[1]	99	1,864
Approvals[2]	46*	1,263
*Three applications approved in October 2019 (16995, 16996, 16997) were withdrawn on February 11, 2020, before any contracts were signed. The totals in this table include these applications as they were received and approved in FY 2019-2020.		

Table A2: Number of applications and approvals for capital projects

	2019-2020	Since inception
Applications submitted[1]	20	662
Approvals[2]	13	344

[1] Number of applications submitted to FCM for GMF funding. The submission year is based on the date FCM received the application.
[2] Number of applications approved by the FCM Board, based on the board-approved date. Applications approved in a given fiscal year may have been submitted in a previous fiscal year.

Table A3: Approved sustainable community plans, feasibility studies and pilot projects by region since inception

			Approved in FY 2019-2020					Total net approved since inception[3]					
Region/province	Population[4]	% of pop.	#	TPV[5] ($)	Total grant ($)	% of total #	% of total $	#	TPV ($)	Grant ($)	% of total #	% of total $	Per capita ($)
Atlantic	**2,327,638**	**6.95**	**8**	**2,480,500**	**1,355,300**	**17.39**	**20.35**	**122**	**7,905,940**	**18,235,922**	**10.69**	**5.82**	**3.4**
New Brunswick	751,171	2.24	4	943,900	613,600	8.7	9.21	54	3,717,564	8,287,356	4.73	2.65	4.9
Newfoundland and Labrador	514,536	1.54	2	464,700	218,600	4.35	3.28	19	913,143	2,100,135	1.67	0.67	1.8
Nova Scotia	921,727	2.75	2	1,071,900	523,100	4.35	7.85	43	2,751,513	6,495,133	3.77	2.07	3
Prince Edward Island	140,204	0.42	0	0	0	0	0	6	523,720	1,353,298	0.53	0.43	3.7
British Columbia	**4,400,057**	**13.14**	**6**	**1,601,480**	**779,500**	**13.04**	**11.70**	**206**	**16,598,731**	**47,625,069**	**18.05**	**15.20**	**3.8**
Northern Territories	**107,265**	**0.32**	**1**	**55,000**	**27,500**	**2.17**	**0.41**	**24**	**1,565,771**	**4,664,781**	**2.10**	**1.49**	**3.8**
Northwest Territories	41,462	0.12	0	0	0	0	0	10	891,101	2,353,715	0.88	0.75	14.6
Nunavut	31,906	0.10	0	0	0	0	0	4	232,333	911,500	0.35	0.29	21.5
Yukon	33,897	0.10	1	55,000	27,500	2.17	0.41	10	442,337	1,399,566	0.88	0.45	7.3
Ontario	**12,851,821**	**38.39**	**12**	**4,472,200**	**1,527,800**	**26.09**	**22.94**	**372**	**36,420,670**	**101,938,532**	**32.6**	**32.54**	**13**
Prairies	**5,886,906**	**17.59**	**9**	**4,976,000**	**1,871,500**	**19.57**	**28.1**	**192**	**18,578,694**	**62,419,870**	**16.83**	**19.93**	**2.8**
Alberta	3,645,257	10.89	5	3,767,600	1,305,300	10.87	19.6	110	11,041,966	32,991,271	9.64	10.53	2.8
Manitoba	1,208,268	3.61	2	313,800	156,900	4.35	2.36	38	3,268,716	15,325,955	3.33	4.89	3.2
Saskatchewan	1,033,381	3.09	2	894,600	409,300	4.35	6.15	44	4,268,012	14,102,644	3.86	4.50	3
Quebec	**7,903,001**	**23.61**	**10**	**1,983,060**	**1,098,300**	**21.74**	**16.49**	**225**	**21,681,965**	**78,355,231**	**19.72**	**25.01**	**2.7**
Total	**33,476,688**	**100%**	**46***	**$15,568,240**	**$6,659,900**	**100%**	**100%**	**1,141**	**$102,751,771**	**$313,239,405**	**100%**	**100%**	**$4.1**

* Three projects approved in FY 2019-2020 were withdrawn on February 11, 2020. The total value of the grants cancelled was $162,000.

[3] "Total net approved since inception" includes original Board-approved amount plus any additional approved amount, less the amounts that were withdrawn, closed or cancelled.
[4] Source: Statistics Canada 2011 Census
[5] TPV = total project value reported by applicant

Table A4: Approved capital projects by region

			Projects Approved in FY 2019-2020						Total net approved since inception[6]						
Region/province	Population[7]	% of pop.	#	TPV[8] ($)	Total grant ($)	Total loan ($)	% of total #	% of total $	#	TPV ($)	Grant ($)	Loan ($)	% of total #	% of total $	Per capita ($)
Atlantic	**2,327,638**	**6.95**	**2**	**68,479,300**	**1,716,500**	**11,445,700**	**15.4**	**14.3**	**31**	**747,418,372**	**13,560,446**	**107,997,257**	**14.4**	**14.4**	**52**
New Brunswick	751,171	2.24	1	2,385,300	216,500	1,445,700	7.7	1.8	10	110,508,876	4,030,882	34,759,700	4.6	4.6	52
Newfoundland and Labrador	514,536	1.54	0	0	0	0	0	0	6	117,561,835	3,119,735	25,846,964	3.4	3.4	56
Nova Scotia	921,727	2.75	0	0	0	0	0	0	12	451,089,291	3,982,403	37,083,323	4.9	4.9	45
Prince Edward Island	140,204	0.42	1	66,094,000	1,500,000	10,000,000	7.7	12.5	3	68,258,370	2,427,425	10,307,270	1.5	1.5	91
British Columbia	**4,400,057**	**13.14**	**2**	**779,456,000**	**4,513,100**	**30,087,600**	**15.4**	**37.7**	**35**	**1,472,084,073**	**21,319,561**	**153,280,782**	**20.7**	**20.7**	**40**
Northern Territories	**107,265**	**0.32**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**37,507,579**	**750,000**	**7,500,000**	**1**	**1**	**77**
Northwest Territories	41,462	0.12	0	0	0	0	0	0	0	0	0	0	0	0	0
Nunavut	31,906	0.10	0	0	0	0	0	0	1	37,507,579	750,000	7,500,000	1	1	259
Yukon	33,897	0.10	0	0	0	0	0	0	0	0	0	0	0	0	0
Ontario	**12,851,821**	**38.39**	**6**	**35,552,000**	**3,138,700**	**20,935,200**	**46.2**	**26.2**	**78**	**1,399,678,716**	**28,478,673**	**257,900,905**	**34**	**34**	**22**
Prairies	**5,886,906**	**17.59**	**2**	**18,549,500**	**1,421,400**	**9,475,900**	**15.4**	**11.9**	**37**	**519,955,274**	**21,587,873**	**100,308,361**	**14.5**	**14.5**	**21**
Alberta	3,645,257	10.89	1	14,584,800	1,007,700	6,717,900	7.7	8.4	20	365,915,532	14,472,402	58,315,162	8.6	8.6	20
Manitoba	1,208,268	3.61	0	0	0	0	0	0	10	133,487,448	5,788,533	34,937,934	4.8	4.8	34
Saskatchewan	1,033,381	3.09	1	3,964,700	413,700	2,758,000	7.7	3.5	7	20,552,294	1,326,939	7,055,264	1	1	8
Quebec	**7,903,001**	**23.61**	**1**	**12,368,400**	**1,192,600**	**7,950,300**	**7.7**	**10**	38	416,656,708	20,288,070	110,432,300	15.5	15.5	17
Total	**33,476,688**	**100%**	**13**	**$914,405,200**	**$11,982,300****	**$79,894,700**	**100%**	**100%**	**220**	**$4,593,300,722**	**$105,984,623****	**$737,419,605**	**100%**	**100%**	**$25**

** The total grant value for 2019-2020 indicates values for new projects only and does not include scope changes for projects approved in previous years. The scope change approved for 15225, originally approved in FY 2017-2018, increased the value of the grant for that project and is included in the total net values since inception.

[6] "Total net approved since inception" includes original Board-approved amount plus any additional approved amount, less the amounts that were withdrawn, closed or cancelled.
[7] Source: Statistics Canada 2011 Census
[8] TPV = total project value reported by applicant

Table A5: Approved initiatives by region (sustainable community plans, feasibility studies, pilot projects and capital projects)

			Projects approved in FY 2019-2020						Total net approved since inception[9]						
Region/province	Population[10]	% of pop.	#	TPV[11] ($)	Total grant ($)	Total loan ($)	% of total #	% of total $	#	TPV ($)	Grant ($)	Loan ($)	% of total #	% of total $	Per capita ($)
Atlantic	**2,327,638**	**6.95**	**10**	**70,959,800**	**3,071,800**	**11,445,700**	**16.9**	**14.7**	**153**	**765,654,294**	**21,466,386**	**107,997,257**	**11.2**	**13.7**	**56**
New Brunswick	751,171	2.24	5	3,329,200	830,100	1,445,700	8.5	2.3	64	118,796,232	7,748,446	34,759,700	4.7	4.5	57
Newfoundland and Labrador	514,536	1.54	2	464,700	218,600	0	3.4	0.2	25	119,661,970	4,032,878	25,846,964	1.8	3.2	58
Nova Scotia	921,727	2.75	2	1,071,900	523,100	0	3.4	0.5	55	457,584,424	6,733,916	37,083,323	4	4.6	48
Prince Edward Island	140,204	0.42	1	66,094,000	1,500,000	10,000,000	1.7	11.7	9	69,611,668	2,951,145	10,307,270	0.7	1.4	95
British Columbia	**4,400,057**	**13.14**	**8**	**781,057,480**	**5,292,600**	**30,087,600**	**13.6**	**35.9**	**241**	**1,519,709,142**	**37,918,292**	**153,280,782**	**17.7**	**20.2**	**43**
Northern Territories	**107,265**	**0.32**	1	55,000	27,500	0	1.7	0.03	**25**	**42,172,360**	**2,315,771**	**7,500,000**	**1.8**	**1**	**92**
Northwest Territories	41,462	0.12	0	0	0	0	0	0	10	2,353,715	891,101	0	0.7	0.1	21
Nunavut	31,906	0.10	0	0	0	0	0	0	5	38,419,079	982,333	7,500,000	0.4	0.9	266
Yukon	33,897	0.10	1	55,000	27,500	0	1.7	0.03	10	1,399,566	442,337	0	0.7	0	13
Ontario	**12,851,821**	**38.39**	**18**	**40,024,200**	**4,666,500**	**20,935,200**	**30.5**	**26**	**450**	**1,501,617,248**	**64,899,343**	**257,900,905**	**33.1**	**34.1**	**25**
Prairies	**5,886,906**	**17.59**	**11**	**23,525,500**	**3,292,900**	**9,475,900**	**18.6**	**13**	**229**	**582,375,144**	**40,166,568**	**100,308,361**	**16.8**	**14.8**	**24**
Alberta	3,645,257	10.89	6	18,352,400	2,313,000	6,717,900	10.2	9.2	130	398,906,803	25,514,367	58,315,162	9.6	8.9	23
Manitoba	1,208,268	3.61	2	313,800	156,900	0	3.4	0.2	48	148,813,403	9,057,250	34,937,934	3.5	4.6	36
Saskatchewan	1,033,381	3.09	3	4,859,300	823,000	2,758,000	5.1	3.6	51	34,654,938	5,594,951	7,055,264	3.7	1.3	12
Quebec	**7,903,001**	**23.61**	**11**	**14,351,460**	**2,290,900**	**7,950,300**	**18.6**	**10.4**	**263**	**495,011,939**	**41,970,035**	**110,432,300**	**19.3**	**16.1**	**19**
Total	**33,476,688**	**100%**	**59***	**$929,973,440**	**$18,642,200****	**$79,894,700**	**100%**	**100%**	**1,361**	**$4,906,540,127**	**$208,736,394****	**$737,419,605**	**100%**	**100%**	**$28**

* Three projects approved in FY 2019-2020 were withdrawn on February 11, 2020. The total value of the grants cancelled was $162,000.

** The total grant value for 2019-2020 indicates values for new projects only and does not include scope changes for projects approved in previous years. The scope change approved for 15225, originally approved in FY 2017-2018, increased the value of the grant for that project by $346,600 and is included in the total net values since inception.

[9] "Total net approved since inception" includes original Board-approved amount plus any additional approved amount, less the amounts that were withdrawn, closed or cancelled.

[10] Source: Statistics Canada 2011 Census

[11] TPV = total project value reported by applicant

Table A6: Urban-rural balance of all approved initiatives (sustainable community plans, feasibility studies, pilot projects and capital projects)

			Projects Approved in FY 2019-2020					Total net approved since inception[12]					
Municipality type	Population[13]	% of pop.	#	TPV[14] ($)	Total (grant & loan) ($)	% of total #	% of total $	#	TPV ($)	Total (grant & loan) ($)	% of total #	% of total $	Per capita ($)
Small, rural and remote (rural)[15]	6,329,414	18.90	17	25,765,860	15,931,600	28.8	16.2	404	673,329,059	221,277,101	29.68	23.39	35
Towns and cities (urban)	27,147,274	81.10	42	904,207,580	82,605,300	71.2	83.8	957	4,233,211,069	724,878,897	70.32	76.61	27
Total	**33,476,688**	**100%**	**59***	**$929,973,440**	**$98,536,900**	**100%**	**100%**	**1,361**	**$4,906,540,127**	**$946,155,999****	**100%**	**100%**	**$28**

* Three projects approved in FY 2019-2020 were withdrawn on February 11, 2020. The total value of the grants cancelled was $162,000.

** The total grant value for 2019-2020 indicates values for new projects only and does not include scope changes for projects approved in previous years. The scope change approved for 15225, originally approved in FY 2017-2018, increased the value of the grant for that project by $346,600 and is included in the total net values since inception.

[12] "Total net approved since inception" includes original Board-approved amount plus any additional approved amount, less the amounts that were withdrawn, closed or cancelled.

[13] Source: Statistics Canada 2011 Census

[14] TPV = total project value reported by applicant

[15] Municipalities with a population of less than 10,000 are classified as rural. In the case of regional municipal governments, to be considered rural, each member municipality must have a population of less than 10,000. Urban regional municipalities are those where at least one member municipality has a population of 10,000 or more.

Appendix B: Fund management

Table B1: Amount and type of funding disbursed

	2019-2020 ($)	Since inception ($)
Grants for plans, feasibility studies and pilot projects	5,687,599	87,548,918
Grants for capital projects	1,415,871	74,874,349
Project Performance Reporting Grant Agreement (PPRGA) grants for capital projects[1]	0	1,295,002
Loans for capital projects	8,263,370	570,121,457
Total	**$15,366,840**	**$733,839,725**

Table B2: Performance of unallocated funds

Fiera Capital manages the portion of FCM's Green Municipal Fund (GMF or the Fund) that has not yet been disbursed to initiatives. Directives for investments of these unallocated funds are contained in GMF's *Statement of Investment Policy* to ensure that the Fund generates adequate returns in line with GMF's objectives and financial sustainability. This policy is reviewed annually, was most recently reviewed in February 2020, and was last updated in July 2018.

The following table illustrates the rate of return on unallocated funds in 2019-2020[2] and since inception:

	2019-2020 (%)	Since inception (%)
Return on investment	2.67	4.79

Table B3: Senior management compensation

GMF's senior management consists of one managing director and six senior managers — one for each of the following business units: Funding Services, Knowledge Services, Research and Development, Marketing and Communications, Risk Management, and Governance and Performance Measurement.

Their remuneration for the fiscal year 2019-2020 was based on the salary ranges listed below.

[1] Approvals under Project Performance Reporting Grant Agreement (PPRGA) grants for capital projects ended in August 2006.
[2] Annual return for 2019-2020 was adversely impacted by financial market distress in March 2020 due to the coronavirus pandemic. Annual return excludes the return generated on short-term, liquid cash equivalents.

From April 1, 2019, to March 31, 2020

Managing director	$140,500 to $192,550
Senior managers	$107,900 to $142,750

In addition to a salary, employees receive a contribution to a group RRSP (five percent of their annual salary) and group benefits.

Compensation for GMF Council members and peer reviewers

GMF Council members, except for federal government appointees, may claim an honorarium of $350 for attending each day of an in-person council meeting, plus a one-day honorarium of $350 to cover preparation time. For teleconference meetings, a half-day honorarium rate of $175 may be claimed for attendance, plus a half-day honorarium of $175 to cover preparation time.

GMF peer reviewers may claim fees of $114.28 per hour, for a maximum of $60,000 per reviewer every four years. A maximum of 10 hours per application, per reviewer is the set benchmark; however, for more complex files, additional review time may be granted if requested prior to assessment completion. While the Funding Agreement permits compensation for peer reviewers appointed by the federal government, none have made any claims since GMF's inception.

Appendix C: GMF Council members

Members representing the municipal sector

Councillor Ben Henderson, Chair
City of Edmonton, AB
Appointed February 2015

Mayor Sheila Fitzgerald, Second Vice-Chair
Town of Roddickton-Bide Arm, NL
Appointed April 2017

Mayor Alan DeSousa, Vice-Chair
Saint-Laurent Borough, QC
Appointed June 2018

Councillor Rebecca Mersereau
District of Saanich, BC
Appointed January 2020

Mayor Berry Vrbanovic
City of Kitchener, ON
Appointed April 2015

Councillor Laurel Collins
City of Victoria, BC
Appointed January 2019
Resigned[1] *October 2019*

Members representing the private and academic sectors

Guy Burry, Chairman
Craigellachie Corporation
Appointed September 2015

David Martin
Principal, knoWater
Appointed April 2018

Marco Perron, CPA, CA, CRMA
Partner, Raymond Chabot Grant Thornton
CEO, RCGT Consulting Inc.
Appointed September 2015

Denis Leclerc
President, Écotech Québec
Appointed April 2018

Dr. Arne Elias
Principal, Elias Consulting
Appointed April 2016

[1] Resigned from the GMF Council

Members representing the federal government

Permanent seat	Alternate
Joyce Henry, Director General Office of Energy Efficiency, Natural Resources Canada *Appointed February 2018*	Renée Lazarowich, Manager Strategic Partnerships, Housing Division Office of Energy Efficiency, Natural Resources Canada *Appointed February 2019*
Jocelyn Millette, Director General CanmetENERGY – Varennes Energy Technology Sector, Natural Resources Canada *Appointed April 2019*	Josef Ayoub, Senior Science Advisor Office of the Director General CanmetENERGY – Varennes Energy Technology Sector, Natural Resources Canada *Appointed February 2019*
Rupa Bhawal-Montmorency, Director General Science and Technology Branch Environment and Climate Change Canada *Appointed February 2019* *Resigned*[1] *October 2019*	Adrianne Sinclair, Manager Science and Technology Branch Environment and Climate Change Canada *Appointed February 2019*
Michelle Brownlee, Director General Strategic Policy Branch Environment and Climate Change Canada *Appointed February 2019*	Laniel Bateman, Acting Executive Director Strategic Policy Branch Environment and Climate Change Canada *Appointed February 2019*
Nathalie Lechasseur, Director General Program Integration, Infrastructure Canada *Appointed December 2018* *Resigned*[1] *March 2020*	*Vacant*

[1] Resigned from the GMF Council

Appendix D: Assessment and approval process

Eligible GMF funding applications are assessed by the GMF Peer Review Committee against a set of criteria established by the GMF Council and approved by the FCM Board of Directors. The criteria, shown in tables D1–D4, are used to assess the expected sustainability performance, knowledge value, and management approach of each initiative, with an emphasis on the anticipated environmental benefits. In 2018, GMF introduced new criteria for evaluating energy, transportation, waste, and water (ETWW) capital projects. These criteria will push project proponents toward more ambitious environmental targets.

The GMF Peer Review Committee is comprised of approximately 60 independent experts with specific environmental, project management, or financial expertise. The FCM Board of Directors selects all members of the committee. Up to one-third of members are selected from a list (provided by the ministers of Natural Resources Canada and Environment and Climate Change Canada) of qualified candidates representing federal departments. The remaining members are selected through a call for applications. Of those, half of the selected experts are from municipal governments and half are experts from private sector or non-governmental organizations. Members are appointed to the committee for a four-year term and may be reappointed for one or more additional four-year terms based on participation, turnover, and the need for a balance of technical and financial expertise.

A minimum of two peer reviewers assess each application for plans, studies and pilots and a minimum of three peer reviewers assess each application for capital projects.

After peer review assessment, applications for pilot projects and capital projects are submitted to the GMF Council for consideration. During this review, the GMF Council considers a number of factors, including the independent peer review score, GMF's funding priorities as outlined in FCM's funding agreement with the Government of Canada, regional balance, level of innovation and available funding. The GMF Council recommends only the most exceptional projects for funding and submits these recommendations to the FCM Board of Directors.

As of April 2018, the FCM board of Directors delegated approval of grants associated with plans and feasibilities studies to FCM staff. After peer review assessment, applications for plans and feasibility studies are submitted to the GMF Managing Director for a funding decision. This decision is primarily informed by the peer review assessment. When other aspects should be considered with regard to a specific application — such as divergence of opinion, GMF funding priorities as outlined in FCM's Funding Agreement with the Government of Canada, regional balance, level of innovation and available funding — applications can be submitted to the GMF Council and the FCM Board of Directors for consideration.

Funding sectors and objectives

FCM offers GMF funding in five sectors: brownfields, energy, transportation, water, and waste. These are the objectives for each sector:

- Promote the redevelopment of brownfield sites and avoid "greenfield" development
- Reduce energy consumption and greenhouse gas (GHG) emissions through measures such as efficiency, conservation, demand management and energy recovery, and by promoting renewable or waste energy use
- Reduce fossil fuel consumption and emissions for transportation, through projects that encourage a modal shift away from single-occupancy vehicles or that encourage fleet fuel efficiency or fleet fuel switching
- Reduce potable water use and loss, or protect local water bodies through measures such as demand management, water efficiency, water recovery, or stormwater or wastewater treatment
- Reduce, reuse or recycle material that would otherwise enter the waste stream (thereby reducing GHG emissions from landfills)

Plans, feasibility studies and pilots

Table D1: Assessment criteria for plans

Rated criteria	Maximum score
Sustainability considerations	15
Links to existing plans and policies	15
Systems approach	20
Innovative practices and technologies, beyond business as usual	10
Potential for replication and lessons learned	10
Management capacity (project management)	10
Work plan	10
Budget	10
Total	**100**

Table D2: Assessment criteria for feasibility studies and pilots

Rated criteria	Maximum score
Expected environmental benefits	25
Links to existing plans and policies	10
Systems approach	10
Community benefits	5
Innovative practices and technologies, beyond business as usual	10
Replication potential and lessons learned	10
Project management	10
Work plan	10
Budget	10
Total	**100**

Capital projects (new)

Table D3: Assessment criteria for capital projects in the energy, transportation, water and waste sectors

Evaluation criteria summary		
Category	**Description**	**Criteria**
Innovation	Project exemplifies innovation through demonstration or adoption of new and better solutions that address key challenges for municipalities and communities	• Transformative potential • Audacity • Capacity building • Replication
Impact	Project has potential to generate significant environmental, economic and social benefits for municipalities and communities	• Environmental benefits • Financial benefits • Community benefits • Relative impact
Implementation	Project is designed holistically with internal and external stakeholder engagement (as necessary), planning, risk management, and appropriate resourcing	• Stakeholder engagement • Links to existing plans and policies • Team and partners • Workplan and budget • Risk management • Financing

Each of the three components (innovation, impact, and implementation) are used to plot a graph indicating the relative position of capital projects against each other. Innovation and impact make up the X and Y axes while implementation is used as a multiplier that influences the location of the project along both axes. All of the criteria contribute equally to each axis.

Table D4: Assessment criteria for capital projects in the brownfields sector

Rated criteria	Maximum score
Environmental performance	
Brownfield remediation, risk management and brightfields — direct environmental benefits	30
Sustainable practices	10
Total (environmental performance)	**40**
Other benefits	
Financial performance and sustainability	10
Community benefits	10
Community engagement	10
Alignment with supportive plans, policies, programs and investment	10
Measurement systems	10
Potential for replication by other municipalities	10
Total (other benefits)	**60**
Total score	**100**

Project management	"Traffic light" rating system[1]
Project team	red, yellow, green
Risk management and timelines	red, yellow, green
Finance	red, yellow, green

[1] Project management is scored according to three ratings — red, yellow and green — similar to traffic lights. A **red light** means the peer reviewers identified serious issues, such as inadequacies in the planning, project team or budget, or major gaps in the design that could prevent the project from being successfully completed on time and within budget or from delivering the expected benefits. A **yellow light** means the reviewers identified some weaknesses or minor issues. The applicant would benefit from addressing them, but they should not prevent the project from being completed or delivering the expected benefits. A **green light** means the peer reviewers identified no notable concerns.

Appendix E: GMF initiatives approved in 2019-2020

The FCM Executive Committee approved the following initiatives in 2019-2020. These initiatives were assessed to have the potential to result in significant environmental improvements in air, water and soil quality, including reductions in greenhouse gas (GHG) emissions.

Project information	Lead applicant	GMF grant ($)	GMF loan ($)	Total project value ($)
Alberta				
Considering fuel alternatives for Calgary's waste-collection and recycling fleet *(16700)*	City of Calgary	54,700		119,400
Piloting electric and hybrid trucks for waste collection in Calgary *(16773)*	City of Calgary	500,000		1,463,400
Renewable energy for Edmonton's River Crossing redevelopment *(16692)*	City of Edmonton	60,000		120,000
New technology for better effluent quality at Cold Lake's wastewater treatment plant (pilot) *(16640)*	Cold Lake Regional Utility Services Commission (CLRUSC)	190,600		238,300
Town of Slave Lake to use submerged attached growth reactor (SAGR) to achieve regulatory compliance *(16611)*	Town of Slave Lake	1,007,700	6,717,900	14,584,800
Town of Stony Plain Regional Transit Project - Connecting Small Town and Regional Bus Routes (reducing single occupancy vehicle travel) *(16641)*	Town of Stony Plain	500,000		1,826,500
British Columbia				
Construction of first-ever tertiary wastewater treatment plant for Vancouver Island *(16576)*	Capital Regional District	3,000,000	20,000,000	764,956,000

Project information	Lead applicant	GMF grant ($)	GMF loan ($)	Total project value ($)
Constructing a new pedestrian and cyclist bridge in Courtenay (feasibility study) *(16775)*	City of Courtenay	29,300		58,580
Prioritizing sustainable stormwater management infrastructure in Parksville's coastal Community Park *(16721)*	City of Parksville	168,300		337,100
Sewage heat recovery expansion project for Vancouver's Southeast False Creek Neighbourhood Energy Utility *(16614)*	City of Vancouver	1,513,100	10,087,600	14,500,000
North Cowichan / Duncan Net Zero RCMP Detachment - Feasibility Study *(16725)*	District of North Cowichan	11,000		22,000
Piloting Property-Assessed Financing for Home Energy Retrofits *(16580)*	District of Saanich	350,000		740,000
Summerland Solar + Storage Project - Contaminated Site Assessment and Geotechnical Investigation *(16776)*	District of Summerland	45,900		91,800
Affordable Housing Renewal: Testing Innovative Retrofit and Procurement Solutions in Vancouver *(16678)*	Pembina Institute for Appropriate Development	175,000		352,000
Manitoba				
Diverting Large Household Appliances from Manitoba Landfills *(16462)*	MOPIA (Manitoba Ozone Protection Industry Association)	123,900		247,800
Choosing energy efficiency and renewable energy for building clusters in Emerson-Franklin (feasibility study) *(16532)*	Municipality of Emerson-Franklin	33,000		66,000

Project information	Lead applicant	GMF grant ($)	GMF loan ($)	Total project value ($)
New Brunswick				
Energy Efficiency for Municipal Buildings in a Group of Francophone Municipalities in New Brunswick (PEREEB-AFMNB) *(16538)*	Association francophone des municipalités du Nouveau-Brunswick	417,400		521,700
Conserving energy and preserving history: Making Fredericton City Hall carbon neutral *(16693)*	City of Fredericton	24,900		49,700
Collaborative Transportation Planning in Moncton *(16504)*	City of Moncton	61,100		152,200
Implementing energy efficiency upgrades to Woodstock's AYR Motor Community Centre *(16593)*	Town of Woodstock	216,500	1,445,700	2,385,300
Assessing the feasibility of optimal energy efficiency measures for an arena in Dieppe *(16722)*	Ville de Dieppe	110,200		220,300
Newfoundland and Labrador				
Energy efficiency and renewable energy for municipal buildings in Gander *(16612)*	Town of Gander	104,700		223,800
Energy efficiency and renewable energy for municipal buildings in Grand Falls-Windsor *(16616)*	Town of Grand Falls-Windsor	113,900		240,900
Nova Scotia				
A more sustainable municipal fleet for County of Kings *(16557)*	County of Kings	23,100		52,200
Improving energy efficiency and climate resiliency at a rural seniors' home in West Hants (pilot) *(16784)*	Windsor Elms Village	500,000		1,019,700
Ontario				
Generating biogas through the co-digestion of municipal organic waste and sewage biosolids at the Cornwall Wastewaster Treatment Plant *(16718)*	City of Cornwall	57,500		117,400

Project information	Lead applicant	GMF grant ($)	GMF loan ($)	Total project value ($)
Taking Action on Tower Retrofits (TATR) to reduce energy consumption and greenhouse gas emissions in Toronto *(16735)*	City of Toronto	1,761,900	11,746,300	16,884,100
A Sustainable Neighbourhood Action Plan for Vaughan's Thornhill neighborhood *(16705)*	City of Vaughan	152,100		381,400
Assessing the Feasibility of Undertaking a Deep Energy Retrofit of a Fire Station in Vaughan *(16821)*	City of Vaughan	20,300		47,100
Assessing the risk of sodium chloride contamination to a potable water source in Waterloo *(16726)*	City of Waterloo	175,000		532,400
Bruce Innovates: Bruce County's Foundational Hydrogen Infrastructure Project (*16774*)	County of Bruce	148,750		297,500
Looking for Communal, Low-impact Ways to Manage Stormwater in Mississauga's Southdown District *(16535)*	Credit Valley Conservation Foundation	175,000		559,900
Municipality of Brockton to protect aquatic environment by reducing residual chlorine *(16598)*	Municipality of Brockton	78,000	520,000	747,500
Building a new net-zero fire station in Port Stanley *(16734)*	Municipality of Central Elgin	488,500	3,256,600	5,294,700
Considering Net Zero for Central Elgin new Port Stanley Fire Station *(16558)*	Municipality of Central Elgin	23,100		46,200
Managing snow with renewable energy and stormwater treatment in Russell *(16594)*	Municipality of Russell	56,200		112,400
Developing smart traffic solutions for a more sustainable Waterloo *(16441)*	Regional Municipality of Waterloo	392,700	2,618,300	4,520,700

Project information	Lead applicant	GMF grant ($)	GMF loan ($)	Total project value ($)
Reducing costs and supporting growth with a membrane aerated bioreactor (MABR) at Waterloo's Hespeler wastewater treatment plant *(16615)*	Regional Municipality of Waterloo	251,100	1,684,000	6,485,000
Optimizing the environmental co-benefits of Low Impact Development and Green Infrastructure in York Region *(16716)*	Regional Municipality of York	27,500		55,000
Biosolids management and digester optimization project for the Town of Espanola *(16596)*	Town of Espanola	166,500	1,110,000	1,620,000
Piloting new technology to reduce sediment and phosphorous released into Lake Simcoe watershed *(16703)*	Town of Innisfil	500,000		1,883,800
Rehabilitating Stormwater Management Facilities in Twickenham Park *(16732)*	Town of Richmond Hill	120,550		270,700
Generating biogas through the co-digestion of municipal organic waste and sewage biosolids at the Township of Georgian Bluffs Wastewater Treatment Works *(16728)*	Township of Georgian Bluffs	71,800		168,400
Prince Edward Island				
Signature - Summerside Solar & Storage Integration *(16613)*	City of Summerside	1,500,000	10,000,000	66,094,000
Québec				
Feasibility study of a pilot project on the implementation of an eco-centre in Nunavik *(16696*)*	Administration régionale Kativik	26,800		59,700
Feasibility study of a pilot project on the recovery of metal accumulated in Nunavik *(16697*)*	Administration régionale Kativik	29,900		48,900
Feasibility study of an organic waste recycling pilot project in Nunavik *(16695*)*	Administration régionale Kativik	24,500		53,600

Project information	Lead applicant	GMF grant ($)	GMF loan ($)	Total project value ($)
Towards a sustainable and effective eco-centre model in the RCM of Coaticook *(16698)*	MRC de Coaticook	17,200		34,400
Promotion of reuse by the RCM of La Rivière-du-Nord in new-generation *(16742)*	MRC de La Rivière-du-Nord	1,192,600	7,950,300	12,368,400
Comparative study of the recovery of organic waste *(16650)*	Municipalité de La Pêche	39,500		78,900
Development of the Lambton sustainable development action plan *(16699)*	Municipalité de Lambton	21,200		42,300
Testing of a Thermophilic Composter for Managing Organics in four Abitibi Municipalities *(16667)*	Municipalité de Landrienne	465,100		873,500
Optimizing and improving the environmental performance of the eco-centre of the Municipality of Oka *(16487)*	Municipalité d'Oka	43,300		86,680
Study to reduce GHG emissions generated by Gatineau's municipal fleet of vehicles *(16591)*	Ville de Gatineau	175,000		355,000
Eco-responsible parking lot at the presbytery and library/church *(16740)*	Ville de Neuville	175,000		350,080
Saskatchewan				
Reducing energy consumption at North Battleford's municipal facilities *(16786)*	City of North Battleford	175,000		361,000
Testing an electric bus in Saskatoon's public transit fleet *(16724)*	City of Saskatoon	234,300		533,600
Submerged attached growth reactor (SAGR) will allow future development in the Town of Oxbow *(16609)*	Town of Oxbow	413,700	2,758,000	3,964,700

Project information	Lead applicant	GMF grant ($)	GMF loan ($)	Total project value ($)
Yukon				
Investigating contamination at Whitehorse's McIntyre Creek Pumphouse *(16694)*	City of Whitehorse	27,500		55,000
Total		**$18,561,400**	**$79,894,700**	**$929,973,440**

*The three applications approved in October 2019 from Kativik (16995, 16996, 16997) were withdrawn on February 11, 2020, before any contracts were signed. The totals in this table include the values of these applications, as they were approved in FY 2019-2020.

Appendix F: Environmental results

Table F1: Anticipated environmental benefits of approved capital projects that have not yet reported results

Sector		Indicators								
		# of projects	Land recovered[1] (ha)	Contaminated media[2] managed (m^3)	GHG[3] emissions avoided (tonnes CO_2e/yr)[4]	CAC[4] emissions avoided (kg/yr)[5]	Waste diverted (tonnes/yr)	Water[6] treated (m^3/yr)	Reductions in water use (m^3/yr)	Stormwater managed (m^3/yr)
Brownfields	Approved in 2019-2020	0	0	0	0	0	0	0	0	0
	Since inception	0	0	0	0	0	0	0	0	0
Energy	Approved in 2019-2020	5	0	0	16,393	168,203	0	0	204,725	0
	Since inception	21	4	0	13,703	134,429	0	0	50,870	102
Transportation	Approved in 2019-2020	1[7]	0	0	0	0	0	0	0	0
	Since inception	4	0	0	2,936	10,842	0	0	0	0
Waste	Approved in 2019-2020	1	0	0	0	9	8,325	0	238	221
	Since inception	7	0	0	326,772	149,971	222,093	0	238	221
Water	Approved in 2019-2020	6	0	0	421	4,283	2,646	46,754,698	30	0
	Since inception	19	0	0	956	6,380	3,704	56,171,866	8,649	987
Total	**Approved in 2019-2020**	**13**	**0**	**0**	**16,814**	**172,495**	**10,971**	**46,754,698**	**204,993**	**221**
	Since inception	**51**	**4**	**0**	**353,166**	**406,899**	**225,797**	**56,171,866**	**250,793**	**1,310**

[1] This includes land brought back into productive use.
[2] This includes contaminated soil and groundwater.
[3] Refer to the list of abbreviated terms at the end of this section.
[4] GHG emissions for energy projects are calculated based on average provincial/territorial electrical emissions intensities. GMF supports energy efficiency and conservation projects which do not always result in significant GHG emission changes given the differences in provincial/territorial electricity sources, some of which have a higher carbon intensity than others.
[5] CAC emissions include nitrogen oxides (NO_X), sulphur oxides (SO_X), volatile organic compounds (VOCs), and particulate matter (PM_{10}).
[6] This includes treated drinking water and wastewater.
[7] One capital project in the transportation sector (GMF 16441) was approved in 2019-2020, but the anticipated environmental benefits have not been determined yet due to project changes, and thus were not included in this table.

Table F2: Anticipated vs. actual environmental benefits reported for capital projects in 2019-2020[8,9]

			Sectors					
			Brownfields	Energy	Transportation	Waste	Water	Total
	Number of projects		0	2	2	0	0	4[10]
Indicators	GHG emissions avoided (tonnes CO_2e/yr)	Anticipated	0	461	1,786	0	0	**2,247**
		Actual	0	325	228	0	0	**553**
	CAC emissions avoided (kg/yr)	Anticipated	0	-651	10,335	0	0	**9,684**
		Actual	0	-288	715	0	0	**427**
	Land recovered (ha)	Anticipated	0	0	0	0	0	**0**
		Actual	0	0	0	0	0	**0**
	Contaminated media managed (m^3)	Anticipated	0	0	0	0	0	**0**
		Actual	0	0	0	0	0	**0**
	Waste diverted (tonnes/yr)	Anticipated	0	0	0	0	0	**0**
		Actual	0	0	0	0	0	**0**
	Water treated (m^3/yr)	Anticipated	0	0	0	0	0	**0**
		Actual	0	0	0	0	0	**0**
	Reductions in water use (m^3/yr)	Anticipated	0	13,689	0	0	0	**13,689**
		Actual	0	5,047	0	0	0	**5,047**
	Stormwater managed (m^3/yr)	Anticipated	0	0	0	0	0	**0**
		Actual	0	0	0	0	0	**0**

[8] See Table F4 for details about projects that reported environmental results in 2019–2020.

[9] Refer to the list of abbreviated terms at the end of this section.

[10] One capital project in the transportation sector (GMF 11050) was completed in 2019-2020 but is not included in this table as no final results could be reported after project completion.

Table F3: Anticipated vs. actual environmental benefits reported for capital projects since inception (updated for 2019-2020)[11]

It should be noted that some projects do not achieve their expected performance after one year of operation. This is reflected in the differences between actual and anticipated results in Table F2. In most cases, however, projects have achieved or exceeded their anticipated performance. Since GMF's inception, 12 capital projects (eight in the water sector, three in the energy sector and one in the brownfield sector) have been completed for which no environmental results were reported. The reasons for this are detailed below:

- One project was cancelled after partial disbursement. Although the municipality completed the project, the environmental results report (ERR) was not submitted to GMF.
- The brownfield component of the Fort Rouge project in Winnipeg, MB, was disbursed in 2015-2016. However, no ERR was submitted at that time. Actual results will be submitted at the time of completion of the energy and transportation components of the project.
- One project was completed (i.e., the loan was fully disbursed) for which GMF did not receive the ERR. The GMF Council decided to close the project in May 2014. The grant was not disbursed.
- One project was completed (i.e., the loan was fully disbursed) for which GMF didn't received the ERR (the applicant withdrew before the ERR was received).
- Because of the reporting requirements at the time, six projects didn't provide sufficient information to report on the actual environmental benefits.
- One project, approved in 2002, reported on an environmental impact that does not fit within any of our existing environmental indicators (the project's objective was to improve sludge quality only).
- One project was cancelled after disbursement. Invoices sent to GMF only covered the design of a filtration system. The design was not implemented, and as such, there are no environmental benefits to be claimed for this project.

The total number of capital projects completed since GMF's inception is 168. Of these completed projects, 156 have reported on their environmental performance.

[11] Refer to the list of abbreviated terms at the end of this section.

			Sectors					
			Brownfields	Energy	Transportation	Waste	Water	Total
	Number of projects		9	84	7	16	40	156
Indicators	Land recovered (ha)	Anticipated	94	0	0	0	0	**94**
		Actual	94	0	0	0	0	**94**
	Contaminated media managed (m^3)	Anticipated	193,272	0	0	0	0	**193,272**
		Actual	191,768	0	0	0	0	**191,768**
	GHG emissions avoided (tonnes CO_2e/yr)	Anticipated	0	293,414	29,035	406,748	7,424	**736,621**
		Actual	0	209,571	28,617	171,920	12,992	**423,100**
	CAC emissions avoided (kg/yr)	Anticipated	0	577,606	144,157	8,137	18,545	**748,445**
		Actual	0	401,955	141,780	8,073	7,077	**558,885**
	Waste diverted (tonnes/yr)	Anticipated	0	178	0	253,836	0	**254,014**
		Actual	0	1,722	0	171,874	0	**173,596**
	Water treated (m^3/yr)	Anticipated	0	0	0	0	273,514,178	**273,514,178**
		Actual	0	0	0	0	244,752,512	**244,752,512**
	Reductions in water use (m^3/yr)	Anticipated	0	222,290	0	0	490,322	**712,612**
		Actual	0	364,809	0	0	281,539	**646,348**
	Solid waste treated (m^3/yr)	Anticipated	0	0	0	0	7,008	**7,008**
		Actual	0	0	0	0	34,675	**34,675**
	Stormwater managed (m^3/yr)	Anticipated	0	0	0	0	1,552	**1,552**
		Actual	0	0	0	0	1,552	**1,552**

GHG reporting

GMF's approach to reporting on GHG emissions avoided as a result of funded initiatives includes two components. One is the cumulative annual (one time only) GHG emissions reduction benefits presented in Table F3. The second is based on internationally accepted standards for reporting GHG emissions, which assumes that GMF funds projects that are better than business as usual (BAU) even after the first year of operation. Based on this assumption, GMF will determine the cumulative GHG emissions avoided based on these better than BAU benefits, continuing for seven years — the same length of time as the crediting period of the United Nations' Clean Development Mechanism. On an annual basis, any changes to the carbon profile of electricity consumed from the grid will be incorporated into the reduction for that given year. This approach provides a more accurate picture of the overall positive GHG impacts generated by GMF-funded projects. As shown in Figure F1, based on this approach, the total cumulative GHG emission reductions from all GMF projects that have reported to date is **2.66 million tonnes.**

Figure F1: Cumulative GHG emission reductions by project year

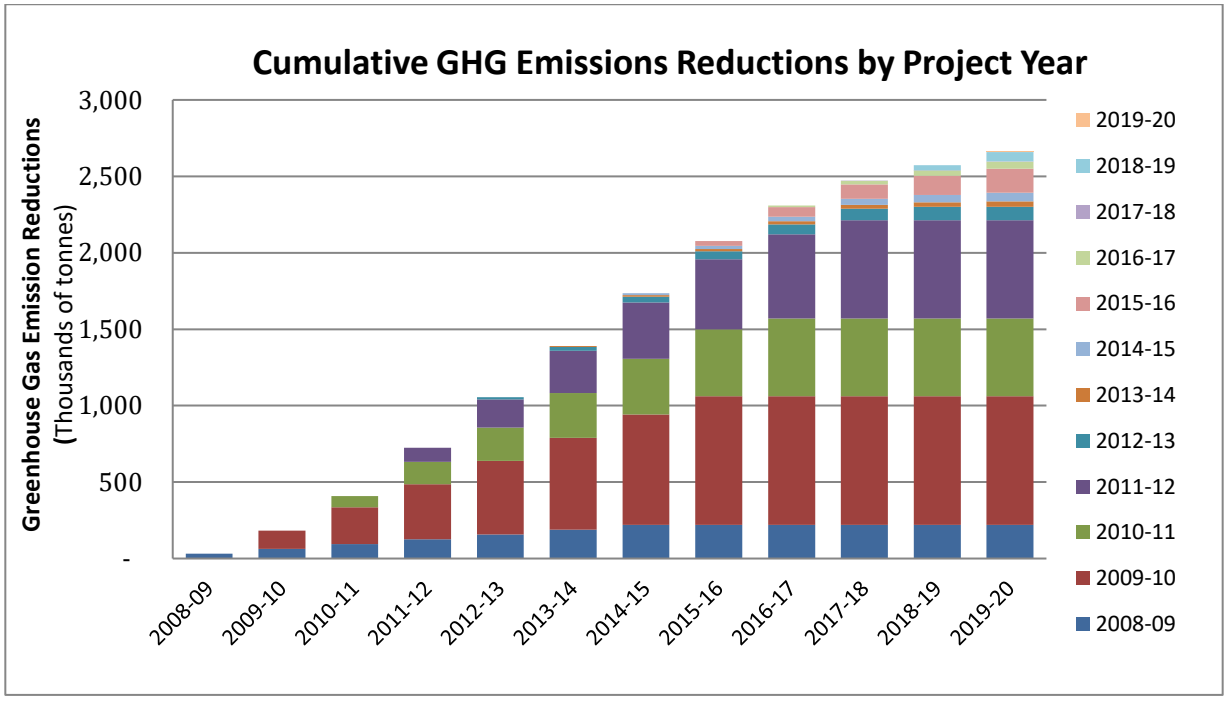

Table F4: Details on capital projects that reported environmental results in 2019-2020

Project information	Anticipated results	Actual results	Comments
(1) City of Saint John, NB Year approved: 2007-2008 Sector: Energy **City of Saint John Canada Games Aquatic Centre Energy Efficiency Retrofit** *GMF 10098*	GHG emissions reduced by 440 tonnes per year	GHG emissions reduced by 304 tonnes per year	In a continuation of its work to establish leadership in environmental sustainability, the City of Saint John has retrofitted the Canada Games Aquatic Centre (CGAC) for increased energy efficiency. The project created energy savings of 30 per cent over its 2010 energy consumption through measures such as the installation of fluorescent and LED lighting, efficient water heating systems, comprehensive air-gap sealing, and high-efficiency heating, ventilation and air conditioning (HVAC) systems. Water conservation measures, such as low-flow toilets and showerheads, have also been implemented and resulted in water savings of 5,047 m^3 per year. The city is planning to use the building as a showcase that can inspire other municipalities, business communities, developers, and the public to develop and use highly efficient energy technologies. Given that the CGAC hosts many major aquatic events, a learning kiosk will be created to reach a wide audience.
	Energy use (electricity and natural gas) reduced by 9,808 GJ per year	Energy use (electricity and natural gas) reduced by 6,597 GJ per year	
	Water consumption reduced by 13,689 m^3/y	Water consumption reduced by 5,047 m^3/y	

Project information	Anticipated results	Actual results	Comments
(2) Cape Breton Regional Municipality, NS Year approved: 2014-2015 Sector: Transportation **Cape Breton Regional Municipality Grand Lake Road Multi Use Path** *GMF 13089*	GHG emissions reduced by 1,562 tonnes per year	GHG emissions reduced by 4 tonnes per year	Cape Breton Regional Municipality (CBRM) constructed a 10-kilometer long multi-use path linking its two biggest communities, Sydney and Glace Bay, with its largest educational institution, Cape Breton University, which is located between the two. The new path provides cyclists, pedestrians and in-line skaters with a safe alternative transportation route along a corridor previously only served by Grand Lake Road, a four-lane, heavy-traffic highway. Other key destinations along the corridor include the Marconi Community College, the Douglas McCurdy Airport and the municipality's largest shopping mall. The multi-use path removed approximately 22 vehicles from the road, for an anticipated 18,373 vehicle kilometres avoided per year, which is equivalent to an anticipated GHG reduction of 3.6 tCO2e per year. The pathway provides students living on campus with a convenient alternative means to travel to nearby businesses, which has been helpful to the businesses because the students are valuable customers and are available to fill part-time jobs.

Project information	Anticipated results	Actual results	Comments
(3) Municipalité de Saint-Valérien, QC Year approved: 2015-2016 Sector: Energy **Rénovation écoénergétique du Centre communautaire de Saint-Valérien** *GMF 13128*	GHG emissions reduced by 21 tonnes per year	GHG emissions reduced by 21 tonnes per year	The Municipality of Saint-Valérien undertook an energy-efficient renovation of its community centre, a former church in the heart of the municipality. The renovation included replacing the building's oil heating system with a biomass heating system, installation of ECORAD technology, improved insulation of the building envelope and use of Energy Star certified equipment. The project also used sustainable construction practices, such as recycling construction debris, controlling outdoor lighting, installing low water consumption equipment and using sustainable materials to emit fewer toxic compounds.
	Energy use (electricity and light fuel oil) reduced by 875 GJ per year	Energy use (electricity and light fuel oil) reduced by 483 GJ per year	
	Generation of 324 GJ of residual energy per year	Generation of 873 GJ of residual energy per year	
(4) Municipalité de Saint-Antonin, QC Year approved: 2017-2018 Sector: Transportation **Remplacement de deux camions 10 roues par deux nouveaux camions fonctionnant au biodiesel et deux camions à essence par deux véhicules hybrides** *GMF 15222*	GHG emissions reduced by 224 tonnes per year	GHG emissions reduced by 224 tonnes per year	The Municipality of Saint-Antonin replaced its two snow removal trucks and two municipal vans. The new trucks and the public works' new van use a mix of biodiesel and diesel fuels, while the fire department's van was replaced with a hybrid SUV. These replacements enabled the municipality to meet new environmental standards in 2017 and reduced fuel consumption, CACs and GHG emissions, as well as the use of salt and abrasives for winter road maintenance.
	Energy use (diesel and gasoline) reduced by 82,997 L per year	Energy use (diesel and gasoline) reduced by 82,997 L per year	

List of abbreviated terms

- CAC: Criteria air contaminants
- GHG: Greenhouse gas
- GJ: Gigajoules
- ICI: Industrial, commercial and institutional
- NECB: National Energy Code for Buildings
- RCM: Regional county municipality

Appendix G: Knowledge resources and activities

The Green Municipal Fund (GMF) has a capacity building mandate that complements its funding mandate. To deliver on this mandate, GMF builds the capacity of municipal stakeholders to develop and deliver exemplary environmental infrastructure projects through peer learning programs, workshops, webinars, case studies and other information resources. Given the Federal Government's *Budget 2019* investment of $950 million into GMF to increase energy efficiency in the built environment, 2019-2020 was a year that balanced the design of two new initiatives: the development of new capacity building approaches and the delivery of core programming. To this end, the team's 2019-2020 activities (detailed below) spanned many of GMF's work packages (also known as key result areas or KRAs), which are outlined in the *GMF Five Year Plan: 2018-2023*. The activities increased GMF's impact through various capacity building initiatives:

1. **KRA 1: Empower innovation (Inspiration>Demonstration>Validation)**
   a) Provide municipalities with a complete set of funding solutions for advancing innovation
   b) Publish and promote sector best practices

2. **KRA 2: Accelerate the replication of proven sustainable solutions**
   a) Create the Inspire Award guidebook

3. **KRA 3: Create a roadmap of the municipal sector's challenges and solution pathways**
   a) Develop and produce the Municipal Energy Roadmap
   b) Create a Municipal Energy Roadmap mobilization strategy

4. **KRA 6: Leverage and mobilize GMF's knowledge, decision tools and capacity-building support of the planning and executing of sustainable projects**
   a) Deliver capacity building at public events
   b) Design and plan the Sustainable Communities Conference
   c) Develop the GMF Help Desk
   d) Renew peer-to-peer learning in the brownfields sector
   e) Deliver the brownfield email series
   f) Partners for Climate Protection program update
   g) Engage in capacity building for GMF-funded projects
   h) Plan and design capacity building efforts for Community Efficiency Financing
   i) Plan and design capacity building efforts for Sustainable Affordable Housing

5. **KRA 7: Collect and develop data to help direct the efforts of the municipal sector and its partners**
   a) Conduct a needs assessment and complete the initial development for the Solutions Explorer online decision-support tool

b) Research sustainable procurement

6. **KRA 10: Inspire municipalities and their partners by defining, recognizing and communicating the successes, lessons learned and triple bottom line benefits of sustainable solutions**

a) Open applications for the 2020 Sustainable Communities Awards

7. **Reach and impact summary**

1. KRA 1: Empower innovation (Inspiration>Demonstration>Validation)

GMF inspires and supports Canadian municipalities that want to deliver transformative and innovative sustainability initiatives. GMF made advancements in 2019-2020 in sharing knowledge with clients, to promote the exploration and development of long-term solutions.

a. Provide municipalities with a complete set of funding solutions for advancing innovation

In the development of the Community Efficiency Financing (CEF) and Sustainable Affordable Housing (SAH) streams, GMF took an integrated approach to our funding and capacity building offer development. The Knowledge and Sector Development team played critical roles throughout the development of these new funding streams. This approach broadened the range of tools available to achieve the objectives of these new streams. The resulting funding and capacity building offers are integrated, aligned, and complementary. This will mean higher-quality projects, a stronger project pipeline and better long-term project results.

b. Promotion and publication of sector best practices

In 2018-2019, GMF commissioned research to better understand key municipal needs, trends, leading-edge best practices and innovations in the areas of waste, water and land use. In 2019-2020, we mobilized this research targeting elected officials and municipal practitioners via two mechanisms:

(1) GMF published and promoted three summary research reports, which provide a snapshot of high-impact practices with triple bottom line benefits for Canadian municipalities in the sectors of waste, water and land use.

(2) GMF hosted a free webinar series (online seminars) to raise awareness about each of GMF's five funding sectors. The webinars showcased transformative innovations and potential for GHG reductions in energy, transportation, waste, water, and land use, respectively. In addition, the sessions on land use, waste and water featured key findings and best practices from the research summary reports. This webinar series reached 697 participants. On average, 96% of participants were satisfied or very satisfied with the webinars they attended, and an average of 93% reported an improved understanding of the subject matter.

2. KRA 2: Accelerate the replication of proven sustainable solutions

In order to encourage the early replication of promising and high-impact solutions, GMF collaborated with partners to mobilize the lessons learned from their successful initiatives into knowledge resources.

a. Inspire Award guidebook

Since 2001, the Federation of Canadian Municipalities (FCM) has recognized excellence and leadership in municipal sustainability through the Sustainable Communities Awards. GMF worked with the first ever Inspire Award winner (the City of Kingston, along with the Limestone District School Board, who won at the 2018 Sustainable Communities Conference) to develop a guidebook outlining the steps, keys to success and lessons learned from the Kingston Transit High School Pass Program.

The guidebook was launched in early April 2019 and GMF hosted a promotional webinar showcasing the project and associated resources in May 2019. The webinar was attended by 53 people, and on average 86% of participants intended to apply the knowledge they gained. Kingston continued to promote its story through other events, notably hosting a workshop at the Municipal Innovators Community conference and presenting at TEDxOttawa in fall 2019. Since the wide diffusion of this program, at least a dozen Canadian municipalities have begun the initial steps to replicate similar initiatives in their own communities.

3. KRA 3: Create a roadmap of the municipal sector's challenges and solutions pathways

The development of roadmaps for each of GMF's funded sectors is a priority initiative for our GMF team, as stated in the *GMF Five-Year Plan: 2018-2023*. We made substantial advancements on the *Municipal Energy Roadmap* in 2019-2020.

a. Municipal Energy Roadmap development and production

In 2019-2020, GMF and Dunsky Energy Consulting collaborated on the final development of the *Municipal Energy Roadmap*. This included an online stakeholder workshop in April 2019 and peer review of the solution and strategy factsheets by representatives of the Government of Canada and Ontario's Independent Electricity System Operator in the summer of 2019. The roadmap report and factsheets also received extensive review by internal staff both before and during production to ensure accuracy and clarity of the final content. The Roadmap was published July 2020.

b. Municipal Energy Roadmap mobilization strategy

In February and March 2020, GMF capacity-building staff engaged external partners, including the Canadian Urban Sustainability Planners (CUSP) network, QUEST's Community Energy Planning Implementation Network (CEPIN), FCM's regional climate advisors, FCM's Transition 2050 partners and members of the original advisory groups for additional feedback on the draft report. This included validating how municipalities anticipate using the roadmap and what additional resources would be most useful to them. GMF is also exploring ways to align the mobilization of the roadmap with the capacity-building offer for GMF's new Community Efficiency Financing funding stream.

4. KRA 6: Leverage and mobilize GMF's knowledge, decision tools and capacity-building support of the planning and executing of sustainable projects

The *GMF Five Year Plan: 2018-2023* outlines a holistic approach to capacity building. It enables us to address gaps and create opportunities for Canadian municipalities so they can undertake successful sustainability solutions. The past year was important not only in terms of delivering programming, but also in developing new relationships, approaches and strategies to achieve our objectives.

a. Deliver capacity building at public events

GMF raises awareness and builds the capacity of municipal staff and elected officials through workshops and presentations at in-person events. In 2019-2020, our staff delivered presentations at several events: a workshop at the Canadian Brownfields Network annual conference; a presentation of the transportation funding and capacity building offers at the Transportation Association of Canada conference; a presentation about plastics at the FCM Annual Conference, and a workshop at the Municipal Innovators Community conference, where staff presented an innovative financing case study on how to engage residents around energy. These presentations helped to profile municipal leadership in sustainable development and reached more than 200 participants.

GMF staff also contributed to consultations with municipal practitioners on both the GMF funding and capacity building offers in the energy sector at the Nova Scotia PACE Summit and the Transition 2050 Partners meeting hosted by FCM's Municipalities for Climate Innovation Program (MCIP). These consultations informed the design of the new offer (CEF) and helped us gather feedback to inform the mobilization strategy for the *Municipal Energy Roadmap*.

b. Sustainable Communities Conference design and planning

GMF initially planned to host the upcoming Sustainable Communities Conference (SCC) in the City of St. John's, Newfoundland, from October 20 to 22, 2020. Given the global COVID-19 pandemic, FCM has decided to cancel the face-to-face SCC and move to a virtual event. Our preparations in 2019-2020 included refining the value proposition and participant experience, as well as aligning the SCC program with the new GMF funding offers for energy efficiency, sustainable affordable housing, and climate action.

c. Help Desk

In 2019-2020, we developed an internal tool using Power BI to help staff access information about past funded projects, Sustainable Communities Award winners, webinars and other resources. GMF is currently exploring how to share this information publicly.

GMF's Knowledge and Sector Development team has trained Client and Funding Services staff on how to use the tool, update it monthly and adjust it as needed based on staff and client feedback.

d. Renewal of peer-to-peer learning in the brownfields sector

FCM's Leadership in Brownfield Renewal (LiBRe) network connects municipal staff from Canadian communities of all sizes. These municipalities have committed to remediating and redeveloping

brownfield sites to revitalize their communities. LiBRe members gain access to a network of peers and leading municipalities in this sector. The program is based on a seven-step best practices framework that guides municipalities as they chart a unique course to revitalize their communities and redevelop underutilized brownfield sites.

In 2019-2020, GMF launched a LiBRe recruitment campaign, welcoming 25 new individual members to the English and the French cohorts. The LiBRe network now has 34 municipalities in its Anglophone network, and 13 municipalities in its Francophone network. GMF also hosted five online meetings of the networks (three in English, two in French), which reached 82 participants, and two in-person events which engaged 35 participants. Of the participants, 95% were satisfied or very satisfied with their participation in the network, reflecting how well the program responds to participant needs.

e. Brownfield email series

We also launched our first email series, *Fostering brownfield redevelopment in your community*, at the end of 2019-2020. This microlearning series, a knowledge mobilization mechanism, is designed to support municipal staff and elected officials when they consider brownfield redevelopment opportunities. The eight-week series delivers short, weekly emails outlining key actions, from how to streamline your municipality's approval process to building partnerships with brownfield stakeholders. Less than two weeks post-launch, more than 130 subscribers had registered for the series.

f. Partners for Climate Protection program

The Partners for Climate Protection (PCP) program is managed and delivered by ICLEI—Local Governments for Sustainability Canada (ICLEI Canada) and the Federation of Canadian Municipalities. PCP is a national network of more than 460 Canadian municipalities. The program uses a five-milestone framework to guide municipalities from commitment to action in reducing their greenhouse gas emissions (GHGs) and taking action on climate change. FCM's contributions to PCP are supported by both GMF and the Municipalities for Climate Innovation Program (MCIP).

This year was the 25th anniversary of the PCP program. The Program held a reception at ICLEI's Livable Cities Forum in October 2019 and produced an anniversary video and images. The program remains active, having attracted 66 new municipalities to join the program, achieving 180 new milestones, and having 55 members reach Milestones 5. The PCP Hub, an online networking space, continues to grow with 598 participants. This includes networks that are now completing the PCP Milestones: the British Columbia Hydro Community Energy Managers and Canadian Urban Sustainability Practitioners (CUSP) network. Two regional recognition events supported knowledge sharing between members this year, and these were complemented by a new brand developed for the program. A range of useful tools and resources were released, including an updated online Milestone Tool to support municipalities in completing their GHG inventories, the 2019 National Measures Report highlighting 164 climate actions by member municipalities across Canada, and the *Greenhouse Gas Project Level Quantification Guide*. FCM and ICLEI Canada also delivered a webinar series and workshops across Canada.

Alongside the core program, a network of six regional climate advisors continued to support members across the country with a combination of awareness raising and direct technical assistance. Internationally, FCM

established a collaboration with the Global Covenant of Mayors to develop alignment between PCP and the global program's framework.

g. Capacity building for funded projects (GMF clients)

The long-term objective of GMF is to provide capacity building to every funded project in order to support each project's success. In 2019-2020, GMF initiated the development of a capability assessment framework and tool to help municipal project teams identify how to improve their project management delivery. GMF will pilot and operationalize an integrated capacity building strategy for funded projects in 2020-2021.

h. Community Efficiency Financing (CEF) capacity building design

Through 2019-2020, the GMF Knowledge and Sector Development team played a key role in developing the Community Efficiency Financing (CEF) initiative. This new funding accelerates the development, roll out and scale-up of municipally supported efficiency financing programs. It does so through grants for feasibility and design studies and capital (i.e., loans and loan guarantees) combined with grants for full-scale programs. These financing programs will support residential homeowners who make energy efficiency and renewable energy investments. These actions will help reduce GHG emissions and will have additional social, environmental and financial benefits.

Capacity building and peer learning are central elements of this funding stream, which will provide support to first-of-kind leaders in the Canadian municipal landscape. By supporting this next generation of innovative projects, GMF will learn how to refine a variety of made-in-Canada models. The first of two calls for applications was launched in March 2020, with the remainder of funding calls and a robust suite of capacity building tools will be released in 2020-21.

i. Sustainable Affordable Housing (SAH) capacity building design

GMF designed and created the Sustainable Affordable Housing (SAH) initiative in 2019-2020 to support and scale up the adoption of innovative sustainability solutions in the affordable housing sector. The program focuses on two areas: funding offers for plans, studies, pilots, capital retrofits and new residential buildings; and capacity building to help advance the transformation of the affordable housing sector and successfully implement energy efficient housing measures.

This initiative launched in May 2020, with a variety of capacity building resources to be published in 2020-21. Our capacity building efforts will aim to address known gaps in the affordable housing sector related to the planning, development, implementation and operation of energy-efficient buildings and retrofits of varying complexity and scope.

5. KRA 7: Collect and develop data to help direct the efforts of the municipal sector and its partners

GMF recognizes the need for comprehensive data collection and sharing to help identify how municipalities can address sustainability areas that have significant environmental and economic impacts.

a. Solutions Explorer online decision-support tool

GMF is developing a Solutions Explorer Tool, an online dashboard aimed at helping municipal staff sift through large amounts of information to find the sections most relevant to them. Our pilot version of the tool focuses on mobilizing GMF's new Energy Roadmap — a comprehensive review that identifies the highest-impact opportunities for municipalities in the energy sector.

This iteration of the tool could help municipal staff and elected officials find promising building, community and municipal-level technologies and strategies to be more energy efficient, save money and reduce greenhouse gas emissions. By allowing the users to select certain criteria in a step-by-step process, the tool could direct their attention to the parts of the *Municipal Energy Roadmap* that are the most relevant to their locale, grid type, and preferred solution type.

In 2019-2020, GMF and a selection of our municipal partners conducted a needs assessment and a review of existing online tools. Both exercises affirmed the value of this kind of tool, so we made efforts to rapidly develop a prototype that will undergo widespread internal and external usability testing in the next fiscal year. Based on user feedback, we may expand the tool in the future to incorporate other funding sectors.

b. Sustainable procurement research

GMF commissioned research on the status of sustainable procurement practices in municipalities in Canada. The research suggests that while municipalities have made significant commitments to sustainability, only a few municipalities use procurement as a tool for sustainability. There are a number of specialist groups working on procurement as a tool for sustainability in Canada. GMF will investigate some of the opportunities to leverage procurement as a tool to promote sustainability and the circular economy within core GMF funding offers and in municipalities in general.

6. KRA 10: Inspire municipalities and their partners by defining, recognizing and communicating the successes, lessons learned and triple bottom line benefits of sustainable solutions

At GMF, we have supported numerous projects since our inception that generate valuable lessons learned. These can be used to both inspire and ensure the success of future projects. FCM celebrates and showcases the most innovative environmental initiatives in Canadian cities and communities of all sizes through the Sustainable Communities Awards.

a. Application launch for 2020 Sustainable Communities Awards

Since 2001, FCM has recognized excellence and leadership in municipal sustainability through the Sustainable Communities Awards program. These awards recognize municipal initiatives in multiple categories, including brownfields, transportation, waste, water, energy, sustainable neighbourhoods, climate change, and asset management. To celebrate GMF's 20th anniversary, the 2020 Awards program

introduced a new category, the Visionary Award, which celebrates an initiative that demonstrates long-term community change. It is open to any project completed in the last 20 years.

The call for applications for these awards launched in November 2019. GMF hosted two webinars in December to discuss the SC Awards and answer questions from potential applicants - 45 people attended the webinars. The webinars also featured a panel of former winners from 2018 (English webinar), a former winner from 2015, and a member of the judging panel (French webinar). The application deadline was originally scheduled for March 31, 2020, but moved to April 30, 2020, to accommodate delays associated with COVID-19.

7. Reach and impact summary

Capacity-building activities afford opportunities to raise awareness, develop skills and promote implementation. The tables below contain data about the reach and impact of GMF's capacity building activities in 2019-2020. Reach is defined as the number of participants, number of unique views or number of downloads in that period. Impact is measured through participant self-reporting in several areas: satisfaction with the learning event, whether they gain new knowledge and whether they applied that knowledge.

Table G1: Leadership in Brownfield Renewal (LiBRe) network

Program reach	EN	FR	Total
Total number of participating municipalities	34	13	**47**
Total number of participants	49	17	**66**
Total number of participants in online meetings	62	20	**82**
Total number of participants in face-to-face meetings (including non-LiBRe municipalities)	26	9	**35**

Program impact	EN	FR
Satisfied or very satisfied	93%	100%
Gained new knowledge and/or capabilities (agree or strongly agree)	100%	75%
Applied the ideas and approaches (agree or strongly agree)	73%	75%

Table G2: Partnership for Climate Protection (PCP) program

Program reach	Total
Total number of participating municipalities	469
Total number of municipalities in PCP awareness-raising events	442
Total number of municipalities in PCP technical assistance activities	1,120

Program impact	Total
More aware of opportunities and/or resources to help reduce GHG emissions in their municipality	86%
Improved skills and/or knowledge to help reduce GHG emissions in their municipality	94%
Municipalities that have achieved at least one PCP milestone (includes new members)	67%

Table G3: Knowledge resources

Product type	Language	Reach
Guidebooks x 2	English/French	446 unique downloads
Webinar recordings x 13	English/French	799 unique views
Reports x 6	English/French	525 unique downloads
Brownfield micro-learning series	English/French	137 subscriptions

Table G4: Events

Date	Activity type	Language	Description	Reach
6/01/2019	Workshop	English	FCM 2019 Annual Conference and Tradeshow: Building local solutions to the global plastics challenge	>150 (standing room only)
6/13/2019	Workshop	English	Canadian Brownfields Network annual conference	37
9/24/2019	Workshop	English	Municipal Innovators Community 2019 conference – “Engaging residents in energy efficiency: An innovative financing case study”	18
10/1/2019	Consultation	English	Nova Scotia PACE Summit – presentation on Community EcoEfficiency Acceleration Program initial design	40-50
3/10/2020	Consultation	English	Transition 2050 partners meeting	31

Table G5: Webinars

Date	Number in the series	Language	Activity title	Reach	Satisfied or very satisfied	Improved under-standing	Intend to apply
5/28/2019	1	English	Engaging students to increase public transit ridership: A Kingston story	53	93%	86%	86%
12/3/2019	2	English/ French	FCM's 2020 SCAs: How to apply in 2020	45	100%	100%	65%
2/20/2020 to 3/19/2020	5	English	Municipal best practices in sustainability	697	96%	93%	92%