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EVALUATION OF GATEWAYS AND BORDER CROSSINGS FUND (GBCF)

Evaluation and Advisory Services

Transport Canada

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List of Terms and Abbreviations

ADM	Assistant Deputy Minister
ADM Policy	Assistant Deputy Minister – Policy Group
APGCI	Asia-Pacific Gateway and Corridor Initiative
BCF	Building Canada Fund
C&ACG	Continental and Atlantic Gateway Corridor
CBSA	Canada Border Service Agency
CFIA	Canadian Food Inspection Agency
CPA	Canada Port Authorities
DPR	Departmental Performance Report
DRIC	Detroit River International Crossing Project
EAS	Evaluation and Advisory Services
FAST	Free and Secure Trade
FTE	Full-time Equivalent
GBCF	Gateways and Borders Crossing Fund
GC	Government of Canada
GDP	Gross Domestic Product
GMIA	Greater Moncton International Airport
HQ	Headquarters
ITS	Intelligent Transportation Systems
MOU	Memorandum of Understanding
NAS	National Airports System
NFBC	Niagara Falls Bridge Commission
P3	Public-Private Partnerships
PAA	Program Activity Architecture
PLF	Policy Leveraging Frameworks
PMF	Performance Measurement Framework
Policy	Highway, Border and Motor Carrier Policy (Branch within Surface Transportation Policy at Transport Canada)
Programs	Transportation Infrastructure Programs (Directorate at Transport Canada)
PrSAC	Private Sector Advisory Committee
PSAC	Public Sector Advisory Committee
RMAF	Results-based Management and Accountability Framework
SLC	Strategic Leadership Committee
SO	Strategic Outcome
TAC	Transportation Association of Canada
TC	Transport Canada
TDM	Transportation Demand Management

Executive Summary

The interim evaluation of Transport Canada's Gateways and Border Crossings Fund (GBCF) Program was carried out in order to comply with section 42.1 of the *Financial Administration Act*, which requires departments to evaluate their Programs of grant and contribution every five years.

It is important to note a limitation for this evaluation. While GBCF is well underway at the writing of this report (May 2013), only 10 infrastructure projects were completed and results-information was available for just two of these (in the form of retrospective analyses).

GBCF is a \$2.1 billion funding Program for transportation infrastructure and other related initiatives that develop and exploit Canada's strategic gateways, trade corridors and border crossings. Launched in 2007/08, it focuses on nationally significant projects supporting international trade and efficient and integrated supply chains. Within the GBCF funding envelope, \$300 million was also made available for smaller land border crossings and a freight intermodal component.

GBCF is a merit-based Program and projects are cost-shared with recipients such as provincial, territorial and municipal governments; not-for-profit organizations; and private firms.

Scope and Issues

The evaluation focused on assessing whether the outputs and early outcomes have been achieved. While the evaluation assessed the standard issues of relevance, performance and economy/efficiency, it placed specific focus on knowing whether early research contributed to priority setting and funding decisions and projects are being completed as planned and are contributing to the GBCF Program's longer-term outcomes.

Although multiple methodologies were used to collect and analyze data, the evaluation relied extensively on case studies (nine in total—seven infrastructure and two non-infrastructure projects). These were used to support findings throughout the report.

Main Findings and Conclusions

Relevance

To assess relevance, we considered the extent to which the Program is being responsive to the needs of Canadians, is in keeping with the roles and responsibilities of the federal government and is a federal priority.

A review of Speeches from the Throne and Budget and parliamentary reporting documents from 2006-2011 shows that investments in transportation infrastructure continue to be government and departmental priorities, particular in gateways and trade corridors. The transportation networks that serve as gateways and corridors to foreign markets are essential to trade success, and the trade corridors and gateways to the U.S. are of particular importance. GBCF also

supports the government's economic stimulus agenda by streamlining the project assessments and approvals.

Case studies confirm the importance of funding provided by the GBCF, and a majority of the projects are well aligned with the objectives of the GBCF. However, there were a few projects that appeared to align less strongly with Program objectives.

We also noted the similarities between the GBCF and the Asia-Pacific Gateway and Corridor Initiative (APGCI), which raised the question of whether there needed to be two separate Programs that focused on improving the efficiency of Canada's trade-related gateways and corridors.

Performance

The interim evaluation focused on assessing the outputs and early outcomes of the GBCF, such as the impact of early research on priority setting and funding decisions and whether projects were being completed as planned.

We found that GBCF-funded research was useful and served a variety of purposes, including informing the selection of GBCF projects, policy-making and the engagement of stakeholders. However, there were also indications that studies that were intended to inform decision making were not always timely and may not have influenced investment discussions.

GBCF was largely successful in generating partnerships that enhanced the delivery of the Program. The value-added of partnerships was perceived to have been most evident in informing investment decisions when partners brought new information to the discussions.

The majority of the GBCF-funded projects we reviewed have been completed or are on track to be completed as planned (i.e. in scope, within budget and on schedule). There is evidence of improvements to the transportation infrastructure, including infrastructure at key border crossings.

Economy and Efficiency

By the time the GBCF ends in 2017-18 it will have cost \$54.9 million to deliver the Program, which is 3% of total Program funding. The actual costs to deliver the GBCF so far have equalled 6% of the total funding for the Program. However, this figure is expected to decrease to 1% annually for the remainder of the Program's life.

Recommendations / lessons learned

1. Transportation infrastructure funding programs with a research component should systematically track or document the contribution of research studies to immediate outcomes and decision making.
2. Programs group should revisit performance data requirements from recipients of contribution agreements to ensure that retrospective analyses (or similar performance-

type reports) provide as much useful and specific information about the immediate outcomes of a project as possible.

Program Profile

Background

In June 2007, the Government of Canada (GC) approved the \$33 billion Building Canada Plan and the National Policy Framework for Strategic Gateways and Trade Corridors. From this funding, \$2.105 billion was approved for the Gateways and Border Crossings Fund (GBCF) for trade-related gateways infrastructure.

GBCF is a funding Program for transportation infrastructure and other related initiatives that develop and exploit Canada's strategic gateways, trade corridors and border crossings. Funding was originally for a seven year period (2007/08–2013/14) and has been extended to March 31, 2018. Consistent with the National Policy Framework for Strategic Gateways and Corridors, the GBCF approach is intended to “shape recommendations[,] ... identify opportunities ... [and identify] priorities for further investments to address the range of interconnected issues that affect the fuller development and use of strategic gateways, trade corridors and border crossings.”¹

The GBCF is a merit-based Program designed to improve the flow of goods and people between Canada and the rest of the world. Most GBCF infrastructure projects involve investments in strategic transportation and trade assets, including major Canada-United States border crossings; the core national highway system; and marine ports, airports and intermodal facilities. In June 2008, however, Cabinet approved the allocation of up to \$300 million for a new component to fund Smaller Land Border Crossings and Freight Intermodal Connectors.

Projects are cost-shared with recipients such as provincial, territorial and municipal governments and private firms. Proposals seeking \$50 million or more in federal contributions are assessed for their suitability as a Public-Private Partnership (P3).² The funding and GBCF Program terms and conditions were approved by Treasury Board on February 7, 2008.

TC developed Policy Leveraging Frameworks (PLF) that state national transportation infrastructure policy objectives and list categories of eligible projects, along with their expected outcomes. The PLF provides guidance and ensures that projects funded under the GBCF maximize outcomes against federal horizontal objectives.³ The categories of eligible projects are identified in the GBCF Terms and Conditions and they include:

- Projects that increase the productivity and efficiency of strategic assets of national significance (e.g. improvements to core segments of the national highway system, connectors to intermodal facilities, grade crossing improvements or grade separations, and enhancements at customs facilities impacted by transportation infrastructure projects).
- Integrated Intelligent Transportation Systems (ITS) projects at international gateways, along strategic corridors and at land border crossings that significantly increase the productivity of existing systems.

¹ RMAF for the Gateways and Border Crossings Fund Contribution Program.

² The P3 requirement was suspended until April 1, 2011, to streamline the application process in the context of the Economic Action Plan.

³ Policy Leveraging Frameworks for the Gateways and Border Crossings Fund.

- Multimodal projects that support integrated and efficient supply chains (e.g. shortline railways, short sea shipping initiatives and intermodal projects).
- Transportation planning, feasibility and research studies that support the development of international gateways, trade corridors and border crossings.
- Non-infrastructure initiatives in support of international gateways and trade corridors (e.g. trade missions, gateway symposia, workshops and conferences, and gateway and trade corridor marketing and promotional efforts).
- Under the Smaller Land Border Crossings and Freight Intermodal Connectors component, projects such as customs facilities at smaller land border crossings; ITS projects; highways/roads leading to smaller land border crossings (up to 100 kilometres from the border); and highways/roads connecting the national highway system to a freight intermodal facility (up to 15 kilometres in length).

The PLF lists expected outcomes and benefits that must be demonstrated by project proponents and the minimum federal requirements to which they must adhere. The projects approved are expected to result in improvements to efficiency, capacity, environmental benefits and cost savings. Project justification must be based on current demand and be consistent with long-term development plans for the region.

By June of 2008, the Minister of Finance indicated that the global economy was going into recession. To address this challenge, Cabinet approved a number of changes to the Building Canada Plan, including the GBCF, to streamline the Program, expedite approvals, accelerate construction, expand eligible categories of investment and speed up the flow of funding to projects ready to start within two years. This included a top-up of \$14.5 M in funding to the GBCF for two projects. These two projects are the Blue Water Bridge Canada and the Peace Bridge.

The GBCF Program is well underway, with 38 GBCF-funded infrastructure projects announced or started (of which 10 have been completed as of May 2013) and 22 G&C non-infrastructure projects started (of which 10 have been completed). Also completed are 54 gateway-related O&M-funded studies.

Table 1: GBCF Projects by Type

Project Type	Number of Projects
Infrastructure	38
Airport	7
Border	6
Bridge	1
Information Technology	2
Intelligent Transportation Systems (ITS)	2
Port	8
Rail	1
Road	11
Non-Infrastructure	22
Marketing	10
Research Study	12

Resources

The projected costs for the GBCF as of May, 2013, are found in Table 2 below.

Table 2: Projected GBCF Costs, as of May 2013

Item	Total TC Contribution (\$)	# of Projects
Program Administration and Management	54,901,190	
Infrastructure		
Projects	1,745,426,804	38
Residual	9,321,855	
Research		
O&M-funded	7,201,929	54
Lapsed	2,154,092	
G&C-funded		
• Research	988,433	12
• Marketing	2,500,000	10
Grand Total	1,822,494,303	114

The planned and actual spending for the GBCF is found in Table 3.

Table 3: Planned and Actual Spending for the GBCF

	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013*	2013-2014*	2014-2015	2015-2016	2016-2017	2017-2018	Total
	Actual					Forecast						
Operating & Maintenance	472,320	6,306,840	7,026,649	8,398,655	8,045,064	10,817,772	7,555,906	1,775,986	1,775,986	1,775,986	1,775,986	55,727,150**
Grants & Contributions	0	4,153,383	36,372,278	98,244,091	100,806,286	244,965,760	147,469,933	460,878,556	365,071,80	55,867,600	244,407,396	1,758,237,093
EBP / Rate @ 20%	23,900	414,834	706,567	852,004	947,846	802,634	780,894	0	0	0	0	4,528,679
Accommodation Rate @ 13%	15,535	269,642	459,268	553,802	616,100	521,712	507,581	0	0	0	0	2,943,640
TOTAL	631,256	13,218,869	48,097,598	112,308,572	115,154,528	261,121,047	160,218,785	462,654,542	366,847,791	57,643,586	246,183,382	1,821,436,552***

* In these columns, salaries, EBP and accommodation are actual and G&C are forecast.

** Includes \$22,643,399 personnel costs.

*** Program documents indicate that **\$283,239,639** represents transfers in and out of TC, and **\$10,820,000** is unallocated, for a total of **\$ 2,138,129,595**.

Program Responsibility—Overall

Within TC, overall responsibility for the GBCF Program rests with the ADM Policy in consultation with the ADM Programs. The Surface Transportation Policy Directorate within the Policy Group is responsible for the day-to-day administration of and reporting on the GBCF Program. International Relations and Gateway Initiatives Directorate is responsible for gateway coordination. Policy is responsible for identifying and getting Ministerial approval in principle for projects. Policy and Programs are responsible, with the assistance of staff expertise from other areas within TC, for recommending projects for approval.

Program Responsibility—Project Delivery

For non-infrastructure projects, Policy remains responsible for project implementation, including negotiating agreements and obtaining and approving performance reports, except for ITS projects which are led by the ITS group in Programs.

For infrastructure projects, responsibility for project implementation, including negotiating agreements and obtaining and approving performance reports, rests with the ADM Programs. The Transportation Infrastructure Programs Directorate is responsible for the day-to-day Program management and monitoring. The Transportation Infrastructure Programs Directorate leads for performance assessment, project evaluation and recommended updates to Program management approaches while Surface Transportation Policy Directorate leads for policy assessment and recommended policy changes.

For transportation infrastructure construction projects, monitoring of contribution agreements is also accomplished through federal-recipient management committees. A senior official from the Transportation Infrastructure Programs Directorate and a senior official from the recipient co-chair the management committee.

Expected Results

The ultimate objective of the GBCF is to enhance Canada's economic competitiveness and productivity. Improving the efficiency of gateways, trade corridors and infrastructure assets of national significance is expected to facilitate interprovincial and international trade and travel. Investments in intermodal links, connectors and leading-edge technologies are expected to reduce bottlenecks at intermodal interfaces and enhance the integration of the national transportation system. GBCF is expected to improve the quality of life of Canadians by improving safety and security and mitigating congestion. It is also expected to minimize environmental impacts of transportation projects and optimize the use of all modes. Knowledge of the transportation system should also increase, improving long-term transportation planning.

The GBCF is a sub-activity of Program Activity 1.2, Gateways and Corridors, which is a component of Strategic Outcome (SO) 1, an efficient transportation system (see Table 4).

Table 4: GBCF within TC 2012-2013 PAA

PAA Component	Description
Strategic Objective	SO 1 An Efficient Transportation System
<i>Program Activity</i>	P.A. 1.2. Gateways and Corridors
Expected Results	Gateways and corridors are efficient, reliable and support international commerce
Performance Indicator	Efficiency and reliability as measured by total transit time of international containerized freight using our strategic gateways and trade corridors
<i>Sub-Activity</i>	1.2.2. Gateways and Border Crossings Fund
Expected Result	Canada's strategic Gateways and Corridors are efficient, reliable and are used for international trade
Performance Indicator	Efficiency and reliability as measured by total transit time of international containerized freight using the Continental and Atlantic trade corridors
	Percentage change in value of imports and exports using strategic gateways and corridors
Output	Infrastructure investments
Performance Indicator	Ratio of external project funding levered

About the Evaluation

This evaluation was conducted between October 2012 and May 2013 by a team of evaluators from Evaluation and Advisory Services (EAS) Directorate at TC.

The evaluation is the second of three reviews of the GBCF. The first, an implementation review, was completed in 2010. A final evaluation to assess value-for-money was scheduled for 2015, one year after the completion of the Program, but given the extension of the Program to 2018, the timing of a final evaluation may change.

Evaluation Approach and Methods

The approach to evaluating TC's GBCF Program is presented below.

Purpose of the Evaluation and Evaluation Requirements

The purpose of the evaluation is to report on the achievement of the outputs and early outcomes of the GBCF, with the aim of providing useful information for the continued management of the Program. The evaluation was conducted in 2012-2013 in order to ensure compliance with section 42.1 of the *Financial Administration Act*, which requires departments to evaluate their grants and contributions every five years.

The evaluation will provide an assessment on the five core issues, as prescribed by the Policy on Evaluation, namely:

Relevance

1. The continuing need for the Program
2. Alignment with government priorities

Performance

3. Alignment with federal roles and responsibilities
4. Achievement of expected outcomes
5. Demonstration of efficiency and economy

Scope

The evaluation has covered the resources, activities, outputs and outcomes grouped under 1.2.2 Gateways and Border Crossings Fund in the Departments Program Activity Architecture (PAA). This includes the GBCF related activities of the Surface Transportation Policy Directorate, the Transportation Infrastructure Programs Directorate and the International Relations Directorate activities. The main activities of the GBCF Program include:

- analytical work to refine or improve gateways and trade corridor initiatives (i.e. O&M-funded studies);
- the development and implementation of the gateways and trade corridor strategies (Continental and Atlantic);
- participation in public and private sector advisory committees and working groups; and
- all activities related to funding projects from assessing business cases to collecting data on project performance.

The time frame covered by the evaluation is 2007-08 to 2012-2013.

The evaluation does not include the following GBCF funding:

- \$200 million for land acquisition for the Detroit River International Crossing Project (DRIC) (Vote 5—Capital);
- Lacolle-Chaplain Border Crossing (\$10 million—CBSA is responsible for the management of the project); and
- Highway 1 Banff National Park (\$100 million—Parks Canada is responsible for the management of the project).

Method

The main approach used for this evaluation is goal-based-analysis, which involves testing if the goals of the Program have been achieved. The evaluation also employs contribution analysis to determine how the Program has contributed to the achievement of stated intermediate and ultimate outcomes and what other factors were at play.

The research relied on multiple lines of evidence, including the following methodologies:

- Document and data review
- Literature review
- Data analysis
- Interviews
- Case studies

Document and Data Review

The evaluation team reviewed various foundational documents—including Treasury Board Submissions, Memoranda to Cabinet, Memoranda of Understanding and Memoranda of Agreement—as well as terms and conditions stipulations, Program files and data such as lists of projects, financial records, meeting minutes, records of decision, research study reports, presentations, project performance records, annual reports, etc.

The document and data review reported on the Program’s outputs and outcomes. The first set of outputs comprises the funded research studies and other policy work (such as the Beyond the Border initiative, the Smart Corridor, the Transportation Border Working Group, the response to the U.S. Federal Maritime Commission) and their resulting recommendations for policy, projects or changes to strategies. The evaluation team examined all the data pertaining to the studies (e.g. lists of the studies, study reports and presentations, survey data on outcomes of the studies) for either the total set of studies (n=54) or a purposive sample of the studies. The evaluation team attempted to determine whether the research studies have led to the intended outcomes, such as identifying potential impediments to transportation, technological and infrastructure solutions and priorities for investment of GBCF funds.

The second set of outputs included the Gateway Strategies themselves: Canada’s Atlantic Gateway Strategy and the Ontario-Quebec Continental Gateway Strategy. The data required to examine these outputs included the formalized strategy documents, meeting minutes or records of decisions and other Program files.

The next set of outputs were those associated with activities relating to managing funded projects, including documents relating to the selection of infrastructure and non-infrastructure projects for funding, the business cases, project assessment reports, contribution agreements, project oversight committee minutes, etc. The evaluation looked at how complete the outputs were and what progress had been made toward the completion of projects. Completed projects were examined using some of the above project information. Project data such as annual progress reports and retrospective analyses of projects were the primary data sources.

Finally, the evaluation team attempted to determine how well any of the intermediate and ultimate outcomes have been achieved using Program files and any secondary data produced by other organizations, such as transportation data, industry data, socio-economic data and independent studies or reports.

Literature Review

The objective was to find and review independent research reports, studies, papers or articles that address the following issues:

- Determine international best practices for large infrastructure funding Programs.
- Identify other theoretical approaches, policies, Programs or delivery approaches.
- Confirm or refute analytical studies undertaken by TC.
- Compare results of other Programs or projects with those of TC.
- Establish means for achieving greater efficiency and measuring cost.

Interviews

Interviews were conducted with Program staff and Program stakeholders. The interviews with Program staff were useful to confirm EAS understanding of the GBCF Program but were also useful to explore the issues of relevance, Program performance and results and issues of efficiency. Interviews with stakeholders were useful for gauging results with respect to partnerships and identifying priorities for investment, progress of projects and end results. Interviews were particularly useful for providing context for other findings, insight into how the Programs work in practice as opposed to in theory and assistance in uncovering further data sources.

Eighteen interviews were conducted with the following breakdown by category of respondent:

Table 5: Interviews Conducted, by Category

Program	Interviewee Category	Number Interviewed
GBCF	Program Staff	13*
	External Stakeholders	5
	GBCF Total	18

*All interviews with Program staff were 'group interviews' that involved 2-3 people.

Case Studies

Nine case studies were carried out on a sample of GBCF infrastructure and non-infrastructure funded projects that have been completed or are near completion (see table 6 below). Seven of the nine cases were infrastructure projects. Two of the nine cases were studies.

Table 6: List of Case Studies Conducted

Projects	GBCF-Funded Amount*
Blue Water Bridge Canadian Plaza and Bridge Enhancement Project	\$10,000,000.00
52nd Street SE Expansion Calgary—Phases 3 and 4 of Project	\$34,500,000.00
Queenston Plaza Rehabilitation Phase II Project	\$62,429,321.00
Saskatoon Circle Drive Southwest Project	\$95,838,000.00
Saint John Port Authority Cruise Gateway Project	\$4,500,000.00
Port of Belledune Module Component Fabrication Transshipment Facility Project	\$1,500,000.00
Halifax Stanfield International Airport Runway 05-23 Extension	\$9,000,000.00
Total Infrastructure Projects	\$217,767,321.00
Canada Port Authority Infrastructure Study (Non-infrastructure project)	\$50,000.00
Vietnam Business Development (Marketing) Project	\$6,007.19
Total Non-Infrastructure Projects	\$56,007.19

* These are 'actuals' as reported by case study reviews at the time of writing. Note that the proportion of GBCF funding of the total varied by project.

The total funding in the seven infrastructure case studies amounted to \$217,767,321.00. This represented a significant portion of the GBCF funding and projects at or near completion to date and covered land, sea and air modes of transportation infrastructure. The case studies were chosen so as to include cases across modes and regions and projects either completed or close to completed to provide the most detailed information on both processes and short- to medium-term outcomes for the GBCF Program.

Case studies were treated differently depending on whether they were related to infrastructure (the first seven projects noted above) or were non-infrastructure projects. The infrastructure case studies involved interviews with the funding recipients, project stakeholders, TC project managers, an in-depth review of the project files and secondary data analysis. Secondary data analysis from external sources (e.g. a TripAdvisor survey was conducted for the Blue Water Bridge Plaza Expansion project) was conducted to determine whether projects are contributing to the type of social, economic and environmental outcomes targeted by the GBCF Program. The interviews and project files review collected as much of the following as possible for each case:

- Traffic data such as congestion, delays, numbers of users over time, etc.
- Data on new or improved connections between different modes of transportation.
- Data on investments in GBCF projects, multimodal projects, technology projects, etc.
- Economic data such as value of trade and tourism, value of goods transported, freight movements, operating costs for industry.
- Environmental data such as emissions reductions.
- Socio-economic data such as property damage, personal injury or fatalities, employment.

The non-infrastructure case studies also used file data and interviews but were conducted in somewhat less depth due to the difference in their size and complexity. Nevertheless, the cases were used to illustrate the key workings and early apparent results of a selection of GBCF projects.

Limitations

The major limitation for this evaluation was that many GBCF infrastructure projects have yet to be completed and only two retrospective analyses for infrastructure projects were available to measure immediate and intermediate outcomes of the GBCF. The fact that many projects are still ongoing also meant that data on medium- and long-term Program outcomes was very limited for this interim evaluation. Attributing the long-term effects of the Program on the economy, the environment and the quality of life of Canadians was therefore nearly impossible.

Beyond the limitations usually inherent for case studies (i.e. limited ability to generalize) the selection of cases which were near or at completion meant that the process review was biased toward approval and project management processes that were early in the life cycle of delivery. Secondly, case studies are essentially small stories. Efforts were made to stick to a common framework for the stories, but as the cases were done in different contexts involving different case study analysts some inconsistencies likely occurred. Cross-checking has reduced some but not all of these inconsistencies.

Detailed Findings

This section presents the findings related to the relevance and performance of the GBCF.

Relevance

To assess the continuing relevance of the GBCF, the evaluators considered the Program's rationale, the extent to which the initiative is being responsive to the needs of Canadians and the extent to which it is in keeping with the roles and responsibilities of the federal government and is a federal priority.

Continuing Need and Rationale for the Program

Finding 1: The rationale that led to the creation of the GBCF Program remains valid: trade is key to Canada's economic prosperity and the transportation networks that serve as gateways and corridors to foreign markets are essential to trade success. Trade corridors and gateways to the U.S. are of particular importance.

Canada is a trading nation with one in five Canadian jobs being related to exports⁴. In 2011, over 52 percent of Canada's Gross Domestic Product (GDP) was generated by exports and imports⁵.

Quality infrastructure is a key pillar of international competitiveness. OECD reports that it is trade-enhancing—especially for exports—and has positive impacts on economic growth.⁶ There is unprecedented pressure on trading nations to “achieve greater scale and efficiency in the infrastructure systems that support major trade flows.”⁷ The Building Canada Plan (2006) states that “as a nation whose exports are so critical to our economic growth and prosperity, the infrastructure that provides gateways to foreign markets is especially important to Canada.”⁸

Trade corridors and gateways to the U.S. are of particular importance, as it remains Canada's largest trading partner. More than 200 million people and approximately \$500 billion in goods move across the Canada-U.S. border annually. In 2011, total merchandise trade with the U.S. was \$551 billion and represented 62% of Canada's total trade activities. Exports to the U.S. represented \$330 billion and a full 74 percent of Canada's total exports to the world.⁹ Most of that activity takes place on roads that connect the two countries (see Table 7 below).

⁴“Value of Exports for Job Creation, Economic Growth and Long-term Prosperity,” Foreign Affairs, Trade and Development Canada, 2009.

⁵ World Trade Organization and World Bank GDP estimates.

⁶ *Strategic Transport Infrastructure Needs to 2030*, OECD, 3.2, 2011.

⁷ National Policy Framework for Strategic Gateways and Trade Corridors.

⁸ Program foundational document.

⁹ *Transportation in Canada*, 2011.

Table 7: Canadian Exports to the U.S. (\$ Millions)

	All Modes	Road	Rail	Marine	Air	Other
2007	355,610	174,299	72,255	20,770	15,559	72,727
2008	375,480	163,039	68,855	25,875	15,218	102,492
2009 ^R	270,090	130,907	47,665	17,140	13,194	61,184
2010 ^R	299,075	139,676	59,917	21,055	11,879	66,549
2011 ^P	330,150	148,848	65,643	23,845	12,353	79,460

Source: Transportation in Canada, 2011 (R: Revised data; P: Preliminary data)

As noted in a study reviewed for this evaluation, “the supply chains that span the U.S.-Canada border are unique in the global context. They are heavily reliant on land transportation that travels primarily through just a handful of key border crossings. Major shipments are routinely timed for delivery within hours and sometimes to the minute.”¹⁰

Finding 2: There is evidence that the GBCF is responsive to the needs of stakeholders and Canadians.

All case studies suggest that GBCF was responsive to the needs of stakeholders and Canadians. In some cases funding was used to advance existing plans; in other cases to provide an apparently needed catalyst for others to invest. While the proportion of funding from the GBCF ranged from over 15% to 100% of expenditures, recipients asserted that the funding was influential, even at the low end of funding ratios.

The review of research funded through GBCF’s operations budget also demonstrates that the Program was managed in a way that took into account the needs of the stakeholders and Canadians. Various types of research studies (impact studies, assessments of aspects of supply chains, assessments of market growth opportunities, etc.) documented infrastructure needs that could be addressed through GBCF funding.

Specific examples illustrate the importance of funding provided by the GBCF, for example at border crossings.

Blue Water Bridge Canadian Plaza and Bridge Enhancement Project

{ATIP Removed}

Queenston Plaza Rehabilitation Phase II Project

Information from *Transportation in Canada 2007: An Overview Report* indicates that approximately 16% of all road trade between Canada and the United States crosses the Niagara River. Of the two international bridge crossings of the Niagara River, the Queenston-Lewiston Bridge crossing is immediately connected to interstate highways in the U.S. and the 400 Highway systems in Ontario. Consequently, the Queenston-Lewiston Bridge crossing is favoured by shippers moving goods between Canada’s major manufacturing and consumption centre (Central Ontario) and points of origin or destination in the eastern half of the U.S., as well as the

¹⁰Steven Blank, “Trade Corridors and North American Competitiveness,” Association for Canadian Studies in the United States: ACSUS Occasional Papers on Public Policy Series, Vol.1, no.4.

rapidly growing south. The growth of intermodal traffic with developing world markets has created additional traffic at the Queenston-Lewiston Bridge crossing, given its highway connections and easy access between eastern seaboard ports, including New York and Boston and Canada's major manufacturing centres and markets.

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Finding 3: The vast majority of the Program funds appear to have been directed to projects that were well aligned with the objectives of the GBCF. However, not all the projects were assessed using the same scale.

To determine the alignment of the funded projects with the objectives of the Program, we first looked at the results of the scoring of projects done through the selection process.

We examined 36 infrastructure projects¹¹ representing approximately a third (36%) of the Fund's total contribution funding. We observed that 11 projects that received a score above the threshold for investment were granted 17.7% of the total 36 projects funding. Five border crossing projects, obviously in line with the objectives of the program received 21.2% of this funding but did not receive a score as they were approved at the inception of the program. Another three projects were scored and approved using a different scale from another program (the APGCI) with similar objectives. Fourteen of the 36 projects were not scored and received approximately 37% of the funding. According to Program staff, these projects were assessed against the Fund's merit criteria but not "scored numerically because they were not 'part of a formal call for proposals'". For one of these projects, Treasury Board approval was received for a one-time exception to the Fund merit-based selection process.

A small proportion (2.2%) of the funding we examined (and less than 1% of Fund's total funding) went to three Atlantic region airport projects that scored below the threshold of investments. Program documentation shows that TC viewed the funding of these airports as economic development opportunities, which is not necessarily the focus of GBCF.

Also, funding of airports within the National Airports System (NAS) did not fit with TC's current air policy framework. This framework provides for the NAS airports to be financially self-sufficient (operating and capital costs). Providing public funding to NAS airports such as Moncton, Gander or Quebec (Jean Lesage) to finance capital projects appears to be not well-aligned with this policy framework.

In summary, evidence suggests that the vast majority of projects and funding allocated aligned well with the core objectives of the Program and that GBCF funding was influential.

¹¹ The analysis was based on a selection of GBCF projects as of May 2013 that were managed by TC, and where funding amounts had been made public. It excludes the Access Road to the New Windsor-Detroit Crossing; the \$200 million for land acquisition for the Detroit River International Crossing Project (DRIC), which is not being evaluated; \$10 million for Lacolle-Chaplain Border Crossing (CBSA is responsible for the management of the project); Port of Belledune Improvements \$6 million (Infrastructure Canada), and \$100 million for the Highway 1 Banff National Park project (Parks Canada is responsible for the management of the project).

Finding 4: There are many similarities between GBCF and APGCI, and it is not clear that there needs to be two separate Programs that focus on improving the efficiency of Canada’s trade-related gateways and corridors.

The Asia-Pacific Gateway and Corridor Initiative (APGCI) has a somewhat different focus than the GBCF. Program documents indicate that “while mutually not exclusive, the APGCI’s infrastructure component selection criteria are tailored to support Asia-Pacific trade, while the GBCF focuses more on general international trade in order to be responsive to regional differences”¹². However, the design features of the two Programs are rather similar. Each has a large infrastructure component that focuses on projects that support international trade and efficient and integrated supply chains. Each has a research component that is intended to generate information to inform various aspects of the two Programs.

In addition, a number of projects in Alberta, Manitoba and Saskatchewan were initially announced as APGCI but later funded and managed through GBCF. The projects were:

- Global Transportation Hub (West Regina Bypass)
- Circle Drive Saskatoon
- 52nd Street Calgary
- Trans-Canada and Yellowhead Highways (Portage La Prairie)¹³

Alignment with Government Priorities

Finding 5: Investments in transportation infrastructure and gateways and trade corridors continue to be government and departmental priorities, as evidenced by a review of Speeches from the Throne, Budget and parliamentary reporting documents from 2006-2011.

To assess the alignment of the GBCF with government and departmental priorities, the evaluators conducted a content analysis of the Speeches from the Throne and federal budgets delivered between 2006 and 2011. As the Table below indicates, the analysis confirmed that investments in gateways and trade corridors have consistently been key government and departmental priorities. Table 8 below shows the results of the analysis.

¹²Program foundational documents.

¹³ This project has been cancelled.

Table 8: GBCF Alignment with Government and Transport Canada Priorities

Program & Key Issues	Government of Canada						Transport Canada												
	Federal Budget			Speech from the Throne			RPP			DPR									
	2006	2007	2008	2009	2010	2011	2006 (April)	2007 (Oct)	2008 (Nov)	2009 (Jan)	2010 (March)	2011 (June)	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	
GBCF	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Transportation Infrastructure	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

In particular, the 2007 Speech from the Throne stated that “by investing in transport and trade hubs, including the Windsor-Detroit corridor and the Atlantic and Pacific gateways, the Government will help rebuild the fundamentals for continued growth.” The 2008 Speech from the Throne stated that the government would “continue to invest in expanding gateways on our Atlantic and Pacific coasts, and in vital border corridors such as the Detroit River International Crossing, to ensure that Canadian goods and services can reach markets in Europe, Asia and the United States.” The 2009, 2010 and 2011 Speeches from the Throne did not refer to GBCF explicitly, but they did reference transportation infrastructure, trade and the Perimeter Security agreement with the United States.

The case studies also found alignment with government priorities and the ‘five policy lenses’¹⁴ articulated in the National Policy Framework for Strategic Gateways and Trade Corridors. This document states that the intent of the Fund was to target investments in a limited number of Gateway Strategies in geographic locations that handle the greatest amount of trade in Canada. Some cases were more oriented to gateways and borders than others (i.e. the two international bridge expansions, Halifax airport and St. John and Belledune sea port, were arguably directly related to gateways and borders). The Calgary and Saskatoon road expansion projects were not directly dealing with borders; however, they had intermodal relevance in each case and focused on reducing congestion and improving traffic efficiency as well as safety in trade-related corridors. These elements were also part of the five lenses and can therefore be said to fit Government of Canada priorities.

¹⁴ The five policy lenses are: 1. Gateway and corridor strategies must help align Canada’s major transportation systems with our most important opportunities and challenges in global commerce. 2. They must have systems of transportation infrastructure that carry nationally significant levels of trade. 3. They must be forward-looking, addressing major trends in international transportation. 4. They should go beyond infrastructure systems to address interconnected issues that directly impact how well the system works. 5. Gateway and corridor strategies must ground federal actions in concrete federal responsibilities and effective partnerships.

Alignment with Federal Roles and Responsibilities

Finding 6: **The *Canada Transportation Act* and National Policy Framework for Strategic Gateways and Trade Corridors outline the federal government’s role in implementing a national transportation system and fostering its efficiency, safety, security and sustainability.**

The *Canada Transportation Act* and the National Policy Framework for Strategic Gateways and Trade Corridors outline the federal government’s mandate with respect to a national transportation policy.

Section 5 of the *Canada Transportation Act* establishes federal authorities to implement a national transportation policy,¹⁵ such as the 2007 National Policy Framework for Strategic Gateways and Trade Corridors. The National Framework underscores that “the Government of Canada is responsible for fostering the national transportation system’s efficiency, safety, security and sustainability in all modes as well as for secure and efficient administration of Canada’s borders, pursuing Canada’s interests in international commerce, and positioning Canada to compete and prosper in the global economy.”

All case studies confirmed alignment of the GBCF with federal roles and responsibilities. By definition, as per above, the Canadian Government has direct authorities and roles and responsibilities for international trade (including travel and tourism), security and general international relations. This suggests that for the nine cases examined the international bridges, the airports and the two port expansions were directly connected to federal authorities. The road expansion cases had connections to major intermodal corridors and some international trade relevance. A review of due diligence reports across cases suggests that these were completed to different levels of specificity vis-a-vis selection criteria and that it is therefore challenging to provide a full analysis of the connection of projects with federal roles and responsibilities after the fact.

¹⁵ “... a competitive, economic and efficient national transportation system that meets the highest practicable safety and security standards and contributes to a sustainable environment and makes the best use of all modes of transportation at the lowest total cost is essential to serve the needs of its users, advance the well-being of Canadians and enable competitiveness and economic growth in both urban and rural areas throughout Canada. Those objectives are most likely to be achieved when . . .

- (b) regulation and strategic public intervention are used to achieve economic, safety, security, environmental or social outcomes that cannot be achieved satisfactorily by competition and market forces and do not unduly favour, or reduce the inherent advantages of, any particular mode of transportation; . . .
- (e) governments and the private sector work together for an integrated transportation system.”

Performance

This section presents the detailed findings regarding the effectiveness and efficiency/economy of the GBCF.

Achievement of Expected Outcomes

Although in practice all GBCF activities may take place concurrently and are ongoing, for conceptual clarity the logic model developed for this evaluation (approved by the Program managers) depicted the Program activities in two stages: Stage 1 activities, which are strategic and fundamental to the conception and direction of the GBCF Program, and Stage 2, which are project management activities.

Stage 1 activities are led by the department with the support of provincial governments that had signed Memoranda of Understanding. They include undertaking analytical work, developing gateways and trade corridor strategies, and participating in public and private sector advisory committees and working groups.

When priorities for investment and action have been identified (the final Stage 1 outcome), Stage 2 activities concerning funding individual infrastructure projects can proceed. Stage 2 activities include the assessment and review of project proposals, negotiation and management of contribution funding agreements with project proponents and monitoring project implementation. The immediate outcome of Stage 2 activities is the completion of funded projects (either infrastructure or non-infrastructure). The completion of projects is expected to result in the improvement of transportation infrastructure and enhanced integration of the transportation system. These in turn are expected to contribute towards economic benefits as well as the enhancement of environmental sustainability (e.g. reduced land use and reduced GHG emissions) and the improvement of the lives of Canadians.

In this section we examine:

- a) The extent to which Stage 1 activities have led to the identification of priorities for investment and action (i.e. worthwhile projects) and the identification of bottlenecks and capacity constraints.
- b) Whether GBCF-funded projects are completed or are on track to be completed as planned (i.e. in scope, within budget, on schedule and in compliance with agreements).
- c) Whether these projects have resulted in the improvement of transportation infrastructure.
- d) Whether GBCF results in observed economic benefits, enhanced environmental sustainability or an improvement of the lives of Canadians.

Finding 7: There is evidence that most of the GBCF-funded research was useful and served a variety of purposes, including informing the selection of GBCF projects, policy-making and the engagement of stakeholders.

A key feature of the GBCF is its focus on analytical work. The information generated by this work is intended to enable the federal government and its partners to assess how well gateways and trade corridors were functioning, to identify impediments or bottlenecks to the efficient flow of traffic, and to find solutions and innovations to improve gateway and trade corridor transportation. The research component of the GBCF initiative was formalized in Memoranda of Understanding for the Continental Gateway and Atlantic Gateway, committing the parties to undertake gateways-related research. The intent was to conduct this analytical work “upfront to identify potential projects.”¹⁶ This work was funded through GBCF’s operations and maintenance (O&M) budget and “non-infrastructure research” funded through grants and contributions to various recipients.

Table 9: GBCF-related Research—O&M and G&C-funded

O&M-funded Research	G&C Non-Infrastructure Projects
54 projects	20
\$7.2m	\$1.1M

In order to assess the impact of the O&M-funded studies, the evaluation team examined the studies themselves, input from the Program interviews and Program documents, including a 2012 internal review of the GBCF research component.¹⁷

Table 10: GBCF Studies That Were Reviewed in 2012 by Category

Category	Number of Research Projects
Economic Benefits of Gateways	2
Environment	4
Feasibility Study	1
Infrastructure Needs	4
Networks of Expertise	5
Optimization of Existing Infrastructure	2
Performance/Competiveness	14
Regulatory Burden	4
Trade and Traffic Flows	11
Transportation Innovation	9

¹⁶Program foundational document.

¹⁷The review was a survey of Program managers who were responsible for the studies. It was carried out in 2012 in an effort to collect information about the results of research projects. The scope of the survey included 56 research studies (54 O&M-funded and two funded through G&C).

Eleven out of the 56 studies examined (20% of the total) were identified as having been used as input for project assessments. The total value of these 11 studies was \$2,458,672. Another twelve studies contributed to policy work (with the majority also used for presentations to key audiences), five led to collaboration with stakeholders, five were used for business planning for ITS projects, three were used to inform stakeholders on adaptive construction techniques for northern infrastructure, four were used internally and two were used for promotional purposes. We note that some studies, particularly the later ones, were intended to help with gateways decision making after most of the GBCF funding had already been allocated (i.e. to provide information for funding under future gateways Programs).

Three studies with a total value of \$234,000 were identified as ‘use not clear.’

Interviews also indicate that many of the funded research projects were perceived to have been useful in the GBCF Program or had high potential for use in other infrastructure Programs. Some research studies, while not used for specific GBCF projects, were perceived to have filled ‘research gaps’ and provided a baseline for transportation system knowledge to inform transportation policy or as an information base for other infrastructure investment discussions.

While the evidence shown above points to the usefulness of GBCF research, interviews reveal a perception that most of the infrastructure projects were chosen at the same time as the studies. This leads some to question whether some studies intended to inform decision making were completed in time to influence investment discussions. For example, there is a perception that the studies were not completed on time to have much of an impact on ITS projects, as research was happening at the same time as ITS projects were being completed. Similarly, timeliness was also an issue regarding whether GBCF research influenced the development of strategies, and it appears that “research was being done simultaneously to the selection of projects; it would be better to do the [research] before.”

Case studies point to similar observations. While all examined infrastructure projects reported that the GBCF funding made a difference, it appears none followed the results logic trajectory of first commissioning GBCF supported studies or plans and then using these reports to decide upon and then invest in infrastructure. All case study projects had pre-existing plans for expansion and some of these plans had been around for years.

In order to test the timeliness of the GBCF research, we examined the studies that were identified in the 2012 review of GBCF research as having been used as input for project selection. We then mapped out the timing of the research relative to these events. Our analysis shows that the completion dates of a majority of these studies indeed preceded project announcement or investment decisions - for 27 out of 33 project selection or investment considerations.¹⁸ This indicates that research would at least have been available in time for use. However, we note that this does not mean that all of the research that was meant to be used for the selection of projects was in fact completed in a timely manner. There may have been other GBCF research that was intended to provide input for the project assessments but was not completed in time.

¹⁸ Project selection dates were not available, so project announcement dates were used instead.

In summary, although the \$7.1 million O&M and G&C funds spent on research has been useful, there are indications that the timing of the studies was at times an issue. The pattern of first generating information through studies, then using this information to develop strategies and/or to decide upon where to invest in infrastructure, appears not to have always materialized as planned.

Finding 8: GBCF was largely successful in generating partnerships that enhanced the delivery of the Program.

A key feature of the GBCF is its focus on partnerships. Under the Program different types of partnerships have been established. Partnerships between the federal and provincial governments and transportation industry stakeholders have been a key component of the gateway development.

Partnerships between participating governments have been formalized through MOUs for the development of Gateway Strategies.

The Canada-Ontario-Quebec MOU established a framework for partnerships with stakeholders and included:

- Strategic Leadership Committee (SLC)—included the Deputy Ministers of Transport and Infrastructure Canada, the Transportation Deputy Ministers for Quebec and Ontario gateway-related government departments and three advisers from private industry.
- The Public Sector Advisory Committee (PSAC) coordinated efforts for the initiative by key gateway-related departments.
- Private Sector Advisory Committee (PrSAC)—composed of representatives from the transportation and gateway-related industry.
- Eight working groups, composed of public and private sector participants—to support the development of the gateways strategies through their work on issues such as skills development, regulation and outreach to the U.S.

The Atlantic Gateway partnerships included:

- The Atlantic Gateway Federal-Provincial Officials Committee—key federal/provincial forum for collaboration among the Parties on the development of the Atlantic Gateway.
- The Analytical Working Group in support of the Federal-Provincial Officials Committee—over 150 institutions, companies and facilities consulted.

Many of those interviewed indicated that the partnerships aspect of the GBCF has been effective. The belief is that the value-added of partnerships under the Program has been most evident in situations where TC and its partners jointly discussed a range of possible projects and determined what could or could not be funded. These discussions can be viewed as complementary mechanism to the study component of the Program, in that they appear to produce additional or more refined information. As one interviewee pointed out, “You have your studies, but when you get in there the situation is more complicated than a study can show. The partners help you understand the complexities or the reasons.”

Another indicator of the significance of the partnerships is the frequency of meetings of the groups that were established. Based on a review of documentation such as committee terms of reference and minutes of meetings, in general meeting frequency was determined by mandate

and need and appeared appropriate. For example, for the Continental Gateway officials from Ontario, Quebec and TC supported the development of the gateway through regular meetings and work at the DM, ADM and Director levels. Director-level meetings between the three governments were happening on a weekly basis between 2008 and 2009, bi-weekly in 2010 and about nine times, as required, in 2011. ADM-level meetings happened regularly; however, they were less than monthly. ADMs from the three governments also regularly reviewed proposals for gateway research. Transport DMs from Ontario, Quebec and TC participated on the Strategic Leadership Committee (SLC), along with three private sector strategic advisers. Based on documentation, this committee appeared to meet as needed, which in some years was twice and in 2009 five times. An Analytical Working Group consisting of representatives from TC, Ontario Ministry of Transportation (MTO) and Ministère des Transports du Québec (MTQ) provided support to the SLC. It was established 21 months before GBCF was announced. It developed an analytical framework and a detailed research Program and determined the critical gateway/corridor components of the multimodal transportation system. The meeting frequency for the Analytical Working Group was not clear from the limited documentation that was available regarding this committee. The Private Sector Advisory Committee (PrSAC) was mandated to meet twice yearly or as needed. This group was led by the three strategic advisers from the more senior Strategic Leadership Committee and was the primary forum for private stakeholders to provide input into the development of the Continental Gateway strategy.

In addition to formal partnerships, Interviewees also noted the importance of informal partnerships that help form 'deeper and wider relationships' in areas such as urban issues related to the Continental Gateway.

Finding 9: The majority of the GBCF-funded projects have been completed or are on track to be completed as planned (i.e. in scope, within budget and on schedule).

To assess whether projects were completed as planned, the evaluators examined the number and type of projects completed and the current status of all projects. In addition, evaluators considered this question for the case studies.

As of May 2013, nine infrastructure projects have been completed; two were substantially completed; 18 were underway; four were announced; and two were delayed. The status of seven was categorized as 'under consideration.'

For the case studies, evaluators interviewed TC officials, recipients and other stakeholders, and reviewed the contribution agreements, site visit reports, and minutes of meetings of project management committees and other relevant documents. All projects appear to have achieved most of their goals. All projects examined were completed or were being completed largely as planned, with minor variations.¹⁹

Case studies led to a number of observations:

¹⁹ Stage 2 of 52nd Street Expansion in Calgary was not completed by March 31, 2013, and the deadline was extended to September 2013.

- Target community engagement was clearly an area of success—no cases reported complaints and some (e.g. Calgary) may be considered models of consultation practice.
- Reporting was perceived as burdensome by some recipients—possibly related to their ‘newness’ to applying for government assistance. Difficult economic times may have led to new groups applying for GBCF funding that were not always used to G&C rules and requirements. In some cases, this may have affected their level of satisfaction with reporting requirements.

Two retrospective evaluations were available for this evaluation. While we found that these, as well as others we examined for past evaluations, tended to provide useful information about the results of infrastructure projects. We also note the observations of an audit of the Program conducted at the same time as our evaluation. The audit found that the contribution agreements, which regularly required retrospective analyses, seldom referenced the project proposal as constituting part of the agreement, potentially resulting in a lack of direct linkage to project-specific objectives and outcomes. This may curtail TC’s ability to account for results achieved by infrastructure projects it funds.

Finding 10: Although there is little results-information available, there is some evidence of improvements to the transportation infrastructure, including regarding infrastructure at key border crossings.

Among projects examined as case studies in terms of actual results for Canadians to date, both of the international bridge cases have been able to show actual wait reduction impacts. Given there were only two retrospective analyses completed out of a total of 39 GBCF infrastructure projects at the writing of this report, impacts for other cases have not yet been captured, though some projects show anecdotal improvements and others significant potential.

A project for which there is some results data available is the Queenston Plaza Rehabilitation Phase II Project. The objective was to construct additional passenger and bus primary inspection lanes, commercial vehicle warehouse inspection facilities, passenger vehicle and bus inspection facilities, an animal inspection facility, and a new central building for the CBSA and the Canadian Food Inspection Agency (CFIA).

The Due Diligence Report for the project identified that there was limited processing capability at the Queenston Plaza—between April and September 2008 passenger vehicle delays of more than 2 hours were experienced on 61% of all days.²⁰ For the same period, commercial vehicles experienced more than two hours delay on 18% of all days. The corresponding delays for these congested periods were 40 minutes for passenger vehicles and 60 minutes for commercial vehicles. Traffic queues extended as far as 4 km onto I-190 during these same periods.

Information gathered from Niagara Falls Bridge Commission (NFBC) statistics for peak travel periods suggest that there have been noticeable improvements when CBSA booths are fully populated. For example, on Thanksgiving Monday in October 2012, between 2:00 and 6:00 p.m.,

²⁰ Due Diligence Report, Queenston Plaza Rehabilitation Phase II Project, p. 8.

wait times never went over 45 minutes (average was 32.5 minutes), while on the same holiday Monday in 2010 the wait averaged almost 50 minutes and was as long as 80 minutes, even though volumes were about 20% lighter in 2010.²¹ Another program document projected that the average hourly processing capacity will improve by 2033 from the current 238 passenger vehicles to 370 and from 125 commercial vehicles to 146 because of the Project. This document also applied 2012 traffic volumes to determine the 2033 projected passenger peak period wait time. The 2033 scenario without Plaza improvements indicated that the peak period wait time would be 102 minutes. With the improvements to the Plaza, the 2033 peak period wait time would decrease to just 13 minutes. The same calculation for commercial vehicles indicated a reduction in wait time from 51 minutes to four minutes.

Similarly, the Business Case for the project identified that the expansion of the passenger vehicle primary inspection booths from six booths to 10 booths and the expansion of commercial vehicle primary inspection booths from three booths to five booths would provide the processing capacity to address forecast traffic flows over the longer term. The improved primary inspection area, along with a bus processing centre and the improved secondary processing facilities, were also intended to result in less travel delay, and thus improve the overall reliability of travel across the Queenston-Lewiston Bridge.

The Blue Water Bridge Canadian Plaza and Bridge Enhancement is another project that is complete and for which there is some results-information available. The Project improved infrastructure by widening the plaza and providing additional border crossing lanes available for processing motorists crossing the border to the U.S.A.

The project was completed in March 2011—the widening of the plaza was completed 24 months ago and the dynamic messaging system was completed 32 months ago. The results-information available to the evaluators shows that there has been an improvement to Canada's second busiest international commercial crossing.

A Retrospective Analysis report indicates that the project “has partly contributed to a decrease in the number of days where delays of one hour or more have been experienced during the May to September time period. In 2010 there were 33 such days compared to only 11 in the summer of 2011.” Some of the improvements are unquantifiable, as they are intended to enhance Blue Water Bridge Canada's ability to process information related to the crossing operations and therefore better manage queuing.

Finding 11: Based on the evidence available, there is a likelihood of positive economic benefits from GBCF projects at border crossings.

In terms of impacts specific to GBCF-funded investments, case studies and a review of the literature point to a high likelihood of positive economic impacts for projects for which there is results-information available.

²¹ It is notable that the wait times for incoming traffic to Canada have dramatically improved over the wait times for outgoing traffic (dependent upon U.S. border infrastructure). The wait to enter the U.S. can be as long as two hours, according to key informant estimates.

We have shown earlier that for the Queenston-Lewiston Bridge peak wait times have decreased considerably since the expanded capacity has been completed. Given the fact that 16% of all road trade between Canada and the United States crosses the Niagara River and that the bridge is favoured by shippers moving goods between Central Ontario and the U.S., reduced wait times at this crossing are likely to bring direct economic benefits. The Cost-Benefit Analysis identified in the Business Case had indicated that the proposed changes to the Queenston Plaza would have a positive net benefit to society of approximately 2.029%, with an internal rate of return of 11.274%.²² In another program document this internal rate of return has improved to 23.06%, based on increased traffic projections.

Similarly, the Blue Water Bridge Canadian Plaza and Bridge Enhancement Project contributed to a decrease in the number of days where delays of one hour or more have been experienced during the May to September time period.²³ Given that Blue Water Bridge is Canada's second busiest international commercial crossing, the likelihood of direct economic benefits is high.

If improvements to other crossings bring similar results—Sault Ste Marie International Bridge (\$44.1 m); Cornwall Bridge (\$40m); Peace Bridge (\$1m)—then similar positive economic benefits can be expected.

In addition to gains specific to transportation infrastructure, according to some case study interviewees one of the benefits in the provision of GBCF funding was the easing of liability and debt burdens for bridge and port authorities who were suffering reduced revenues during the recent economic downturn. In at least one case, the improved infrastructure has apparently been linked to increased business investment. It was also noted in a number of interviews that the full range of benefits was not captured in the formal CBAs.

Finding 12: It is too early to assess the environmental or the safety impacts of the GBCF, or whether the Program has resulted in enhanced integration of the transportation system.

There is very little performance information available regarding the environmental or safety benefits of the completed GBCF infrastructure projects. For the Blue Water Bridge Canadian Plaza and Bridge Enhancement Project, there are environmental benefits gained from the new drainage scheme where storm water is directed to a filtering pond rather than being dumped directly into the St. Clair River. Additionally, the new drainage system enhances motorists' safety by reducing water accumulation on the plaza.

Given that many GBCF projects are still not complete, the evaluators examined the objectives of the approved projects to determine how much the integration of the transportation system will be enhanced: 11 projects appear to have as an objective the enhanced integration of the transportation system—they will either integrate with the national highway system or provide an improved intermodal linkage (see Table 11).

²² Business Case, Queenston Plaza Rehabilitation Phase II Project, p. 39.

²³ Retrospective Analysis, Blue Water Bridge Canadian Plaza and Bridge Enhancement Project.

The case studies also provided insights into how GBCF projects aimed to improve connections between modes or linkages to the interprovincial highway system.

When completed, the Saskatoon Circle Drive Project is expected to improve connections with the rest of the Saskatoon Circle Drive ring road and the interprovincial highway system. It will also provide a third river crossing of the South Saskatchewan River, which is expected to reduce congestion at peak periods on the existing two Saskatoon bridges. This project is also expected to improve access to the CN intermodal terminal and to the Viterro Grain terminal in Saskatoon, both of which are located near the area of Circle Drive.

Similarly, the Calgary 52nd Street SE Expansion Phases 3 and 4 Project, when complete, is expected to enhance integration of the transportation infrastructure through the City of Calgary, the Calgary ring road and the interprovincial highway system. It is expected to provide access to CP and CN Railways Intermodal and Cargo/Logistics facilities as well as distribution centres for large retail chains, Canadian Freightways and Reimer Express.

Table 11: GBCF projects that include multimodal and/or intermodal aspects.

Project Name	Value (total projects)	Includes multimodal aspects	Includes intermodal links
Calgary 52nd St. SE	\$69 million	✓	✓
Global Transportation Hub (West Regina Bypass)	\$73 million		✓
Saskatoon Circle Drive	\$245.7 million	✓	✓
Port of Saguenay: Rail Link and Intermodal Yard	\$36 million	✓	✓
Supply Chain Security Assessment: Intermodal and Trucking Security in the ON-QC Continental Gateway and Trade Corridor	\$156k (TC portion)	✓	
Hudson Bay Railway: Rehabilitation Project	\$60 million		✓
Port of Saint John: Cruise Gateway Upgrade	\$18.573 million	✓	✓
Halifax Stanfield International Airport: Runway Extension	\$20 million		✓
Port of Halifax: South End Container Terminal Expansion	\$35 million	✓	✓
Jean Lesage Airport: Improvement and Expansion Project	\$52.6 million	✓	✓
Port of Sept-Îles: New Multi-user Deep Water Dock (inc. two ship loaders; two conveyor lines)	\$220 million	✓	✓

Efficiency and Economy

Finding 13: The actual costs to deliver the GBCF so far equalled 6% of the total funding for the Program (if the first year costs and the cost of O&M-funded studies are

excluded). This figure is expected to decrease to 1% annually for the remainder of the Program’s life. By 2017-18, the cost to deliver the GBCF is expected to equal the targeted 3% of the Program’s funding (if O&M-funded studies are excluded).

The information provided by the Program shows that since 2009 the O&M costs for the GBCF are estimated at about 7% of the total annual Program spending. This calculation excludes the first year of the Program (2008-2009), when O&M costs exceeded 60% of the total spending, as only a few projects had been implemented and only 4% of the planned G&C budget was spent.

Unlike many other infrastructure Programs, the GBCF Program O&M costs include \$7.2 million spent on 54 research studies. The cost of these studies is not typically captured as overhead. If O&M-funded studies are excluded, the cost to deliver GBCF would equal 6% of the total Program spending for the period of 2008-09 to 2012-13.

Table 12: Cost to deliver GBCF (2008-09 to 2012-13)

Category of spending		Cost
G&C		\$484,541,972 ²⁴
Total O&M		\$37,759,192
	Salary	\$25,539,385
	OOC	\$5,017,877
	Research Studies	\$7,201,930
Total		\$522,301,165

This 6% figure is expected to decline significantly as more project funding is disbursed (for the remainder of the Program’s life, forecasted Program delivery costs are expected to be 2% of the total Program spending). It is estimated that when GBCF ends in 2017-18 it will have cost TC \$62.1 million—or 3.4 % of total GBCF funding—to deliver the Program. This figure is higher than the targeted 3% but does include the cost of O&M-funded studies. If O&M-funded studies are excluded, the costs to deliver GBCF will equal 3% of the total Program spending.

Table 13: GBCF Program Delivery Costs (2008-09 to 2017-18)

	Program Delivery Costs	As Percentage of Total Program Costs
With O&M Studies included	\$ 62.1M	3.4%
With O&M Studies excluded	\$ 54.9M	3%

The final evaluation of GBCF in 2017-18 will provide a more accurate picture of the Program delivery costs for the GBCF.

²⁴ These are actuals as reported in Program documents, as of April 2013.

Conclusion

This evaluation was conducted while many GBCF infrastructure projects had yet to be completed and therefore, it is difficult to reach definitive conclusions regarding the results achieved. A final evaluation to be conducted at the end of the program should be in better position to present final conclusions regarding the effectiveness and the overall impact of the program.

In the mean time, findings from this interim evaluation of a limited scope support the following conclusions about relevance and performance.

There were no issues raised regarding the continuing relevance of the GBCF. The program's rationale remains valid although the economic circumstances at the time of the evaluation radically differed from those that prevailed at its inception. During the period covered by the evaluation, investments in transportation infrastructure to improve Canada's international trade remained a government priority. Moreover, investments carried on through the GBCF also supported the government economic stimulus agenda implemented since 2008. By adapting and streamlining its processes to support the Economic Action Plan, the program proved to be responsive to the needs of Canadians.

The vast majority of the program's funding went to projects that directly supported the department's objectives for Gateways and Corridors program and strongly aligned with the selection criteria. The small proportion remaining went in support of transportation infrastructure projects that are not as directly contributing to the overall objectives of the program.

Evaluation findings also indicate that the program is likely to meet its objectives. It was found that the research funded by the program provided a good knowledge base to support decision making, although there were indications that timeliness may have been an issue for some projects. The vast majority of the infrastructure projects reviewed by the evaluators have been completed or were on their way to be completed as planned. The case studies that were conducted showed that the completed projects were having the expected impact of improving the effectiveness of transportation infrastructure. Finally, financial information provided by program managers suggests that when it is completed, the cost of delivering the whole program will equal 3% of total Program funding.

These conclusions are preliminary and should be revisited in the final evaluation of the GBCF.

Management Action Plan

#	Recommendations	Proposed Actions	Forecast Completion Date	OPI
1	Transportation infrastructure funding programs with a research component should systematically track or document the contribution of research studies to immediate outcomes and decision making.	This recommendation will be highlighted for consideration by the Transport Canada Program Excellence Advisory Committee and shared with all relevant parts of the Department responsible for managing future infrastructure programs.	March 2015	TC-Policy TC-Programs TC-Centre of Expertise on Transfer Payments
2	Programs should revisit performance data requirements from recipients of contribution agreements to ensure that retrospective analyses (or similar performance-type reports) provide as much useful and specific information about the immediate outcomes of a project as possible.	Transport Canada is working with Infrastructure Canada to implement best practices for performance measurement in the development of the new infrastructure programs (New Building Canada Fund) including whether the collection of project-specific retrospective data is appropriate, sufficient and effective in supporting program evaluation.	March 2015	TC - Programs

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