

# STATUS OF ASSET MANAGEMENT IN BRITISH COLUMBIA

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RESULTS FROM THE 2016 GAS TAX FUND  
ASSET MANAGEMENT BASELINE SURVEY





## ACKNOWLEDGEMENTS

The Union of BC Municipalities (UBCM) acknowledges Asset Management BC and the Ministry of Municipal Affairs and Housing for their contributions to the development of *Phase 1 Asset Management Assessment Form Baseline Survey*.

Above all, UBCM recognizes the efforts that each BC local government made in completing the baseline survey.

Cover Image: Capital Regional District, Saanich Peninsula Waste Water Treatment Plant - Heat Recovery System

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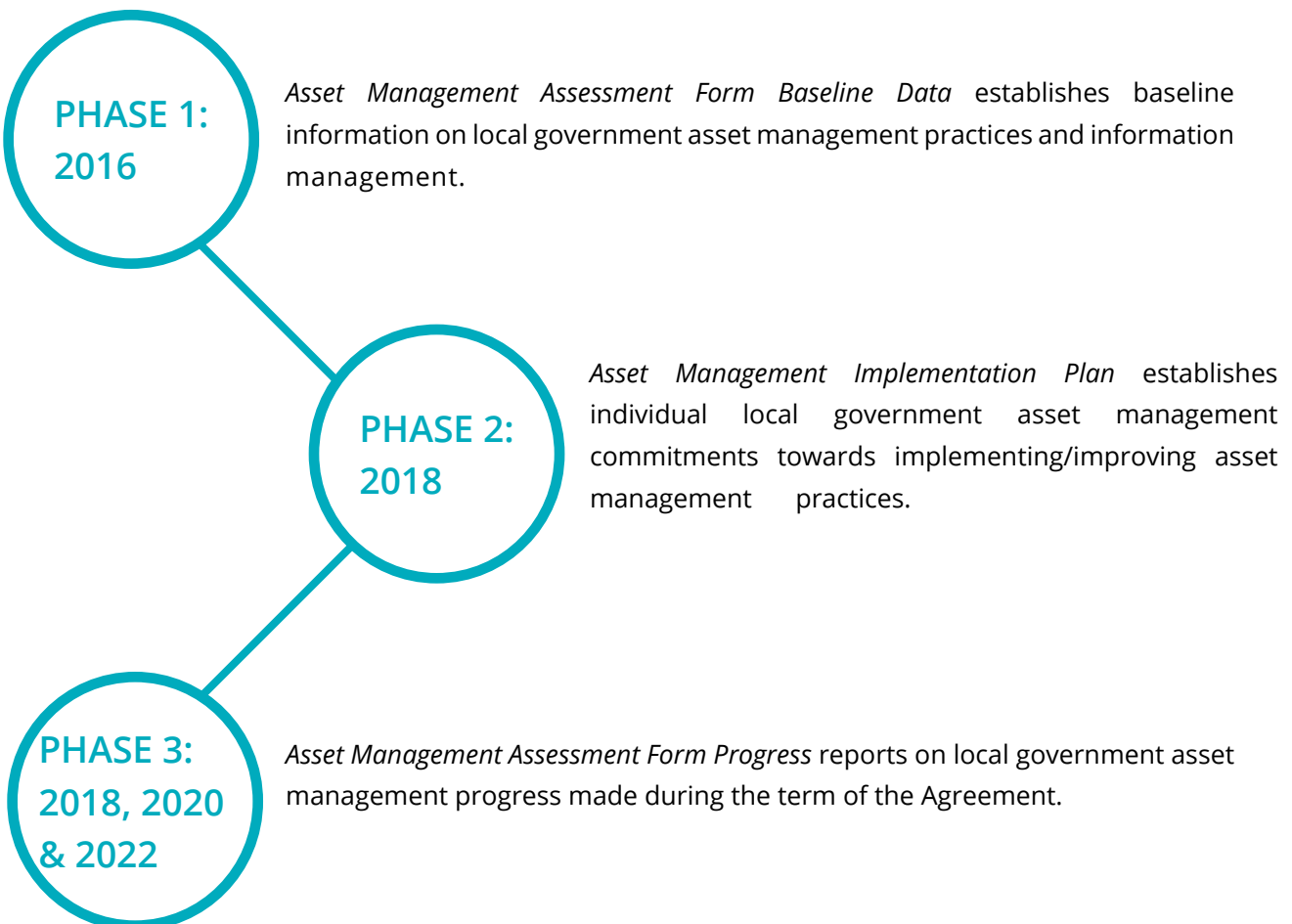


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## PREFACE

The collection of asset management data presented in this report is the result of mandatory reporting requirements under the *Administrative Agreement on the Federal Gas Tax Fund in British Columbia* (GTA or Agreement). The tripartite Agreement between the governments of Canada and British Columbia and the Union of BC Municipalities (UBCM) was signed on April 1, 2014, and outlines asset management as the preferred avenue for “... building local government capacity to take an integrated, long-term approach to plan, build and maintain strong sustainable communities...”.

The Gas Tax Partnership Committee is responsible for strategic oversight and implementation of the GTA and has identified and approved the development of *Asset Management for Sustainable Service Delivery: A BC Framework* (the Framework) as a tool to build and strengthen asset management over the term of the Agreement. Pursuant to the Framework and the Agreement, the Partnership Committee also developed and approved local government asset management commitments. The commitments include three (3) phases for meeting asset management reporting requirements:





*District of Lake Country, Hydroelectric Generating Station*

Under the Federal Gas Tax Agreement, UBCM administers asset management commitments developed and approved by the Gas Tax Partnership Committee. This report represents the cumulative outputs from the *2016 Asset Management Assessment Form Baseline Survey* and meets the Phase 1 commitment to generate baseline data on the current status of asset management for all BC local governments.

## EXECUTIVE SUMMARY

The launch of *Phase 1 Asset Management Assessment Form - Baseline Survey* (survey) in May 2016 was timely. The responses revealed what experts in the field knew anecdotally; in British Columbia, there is a growing awareness in the importance of asset management to support sustainable service delivery. With many existing assets at, or nearing the end of their useful life, survey responses showed that local governments are aware of the importance of regular investment in maintenance, renewal, and replacement of infrastructure.

The purpose of the survey was to collect baseline data on BC local governments' asset management practices. This was achieved through a two-part approach: part one of the survey focused on existing asset management practices – while part two focused on financial information on assets that are owned by BC local governments. The survey was developed by UBCM with contributions from the Ministry of Municipal Affairs and Housing and Asset Management BC. The information presented in this report was prepared in support of mandatory reporting requirements of the *Administrative Agreement on the Federal Gas Tax Fund in British Columbia* (GTA or Agreement).

This report provides the cumulative responses from all 189 local governments across BC as to the current state of asset management – a first of its kind in the province. It is anticipated that this data will provide a baseline measurement of asset management practices for BC local governments over the next decade and beyond.

Key observations from part one of the survey include:

- Over half of local governments have, or are in the process of having, developed formal asset management processes.
- Over half of local governments have taken a corporate approach to the leadership of asset management, a quarter of which have integrated staff from individual departments into an asset management leadership team.
- Approximately three-quarters of local governments reported that elected officials and local government staff understand the need and benefit of asset management.
- A third of local governments have developed asset management policies and strategies and a quarter have developed at least one asset management plan. Of those, over two-thirds of local governments reported integrating asset management activities and long-term financial plans.
- Over two-thirds of local governments reported developing asset management implementation practices.
- Almost half of local governments have measured, and one-third have reported on, the progress of asset management activities.



Key observations from part two of the survey include:

- On average, potable water, wastewater, sports & recreation facilities, and other types of buildings & facilities were reported as in good condition.
- On average, roads & bridges and storm water assets were reported as in fair condition.
- On average, 16% reported replacement costs; and 8% reported renewal funds for assets they described as being owned by their local government.
- Local governments were challenged in providing data for historical costs. PSAB 3150 requires that local governments report historical costs for tangible capital assets. UBCM will investigate why there was difficulty in providing this type of data through the survey.

Moving forward, local governments will use their individual results from the survey to develop an implementation plan. This endeavour will not only assist local governments in identifying gaps and setting priorities for improvement in asset management practices and sustainable service delivery, but will advance these activities provincially.

## INTRODUCTION

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Many local governments have existing infrastructure that is at, or nearing, its critical age of replacement or renewal. The maintenance, repair, and replacement of an asset during its entire lifecycle is integral for meeting and maintaining expected service levels and for projecting sufficient long-term capacity and service needs. This need has resulted in local governments across the province searching for innovative ways to build capacity and fund infrastructure replacement and renewal.

In November 2014, the Gas Tax Partnership Committee (Committee) identified and approved the development of the Framework as the tool to build and strengthen asset management over the term of the Agreement. Following the development of the Framework, the Committee approved three phases for meeting asset management commitments. While the Framework captures typical practices, the 2016 Canadian Infrastructure Report Card (Report Card) was chosen to supplement the survey because it focuses directly on condition and financial information for core asset categories. Together the Framework and Report Card capture the practice and infrastructure pieces of asset management required to undertake a baseline survey of this magnitude.

In May 2016, UBCM launched the *Phase 1 Asset Management Assessment Form Baseline Survey* (Survey) collecting responses from all 189 local governments in BC. Results from the survey are the first of its kind in BC and confirmed what was known anecdotally: there is a growing awareness of the importance of asset management to support the long-term delivery of local government services.

The collection of asset management data presented in this report is the result of mandatory reporting requirements of the *GTA*. Under the Agreement, which came into effect on April 1, 2014, UBCM administers asset management commitments developed and approved by the Gas Tax Partnership Committee. This report represents the first phase of meeting those commitments and is aimed to generate baseline data on the status of asset management for all BC local governments.

The survey was prepared in two parts. Part one collected information on the process of asset management focusing on capacity, assessment, planning, and implementation and were reported by local governments based on the practices they followed at the time of data collection. Part two collected information on asset condition and financial information for existing assets reported as of December 31, 2014.

While each local government provided discrete data, this report describes cumulative data only.





*North Okanagan Regional District, Duteau Water System*

**LOCAL GOVERNMENTS REPORTED THAT**  
**29% HAVE DEVELOPED ASSET MANAGEMENT POLICIES**  
**29% HAVE DEVELOPED ASSET MANAGEMENT STRATEGIES AND**  
**19% HAVE DEVELOPED AT LEAST ONE ASSET MANAGEMENT PLAN**

## PART 1 ASSET MANAGEMENT FRAMEWORK SURVEY FINDINGS

### SECTION 1: CAPACITY BUILDING

The Framework describes the core elements of sustainable service delivery as people, information, finances and assets. Together these elements combine to build asset management capacity that is necessary for achieving sustainable service delivery. In this section of the survey the focus is on the categories of leadership, people and information, finances and formal processes.

Results from the survey show that over half of local governments have taken a corporate approach to asset management and an equal amount have developed a formal process for asset management (Figure 1 and 2). Furthermore, results indicate that almost two-thirds of staff and elected officials understand the need and benefit of asset management as a practice. Results from the finance section of the survey are included to provide insight into the pathways and strategies local governments employ to fund infrastructure improvements. Assessing the core capacities of people, information, finances, and assets is a starting point for local governments to begin the journey towards sustainable service delivery.

#### HIGHLIGHTS OF SECTION 1: CAPACITY BUILDING FOR ASSET MANAGEMENT

**LEADERSHIP:** The survey showed that 33% of local governments reported following an integrated approach to asset management with corporate leadership and divisional staff members working on these activities in tandem (Figure 1).

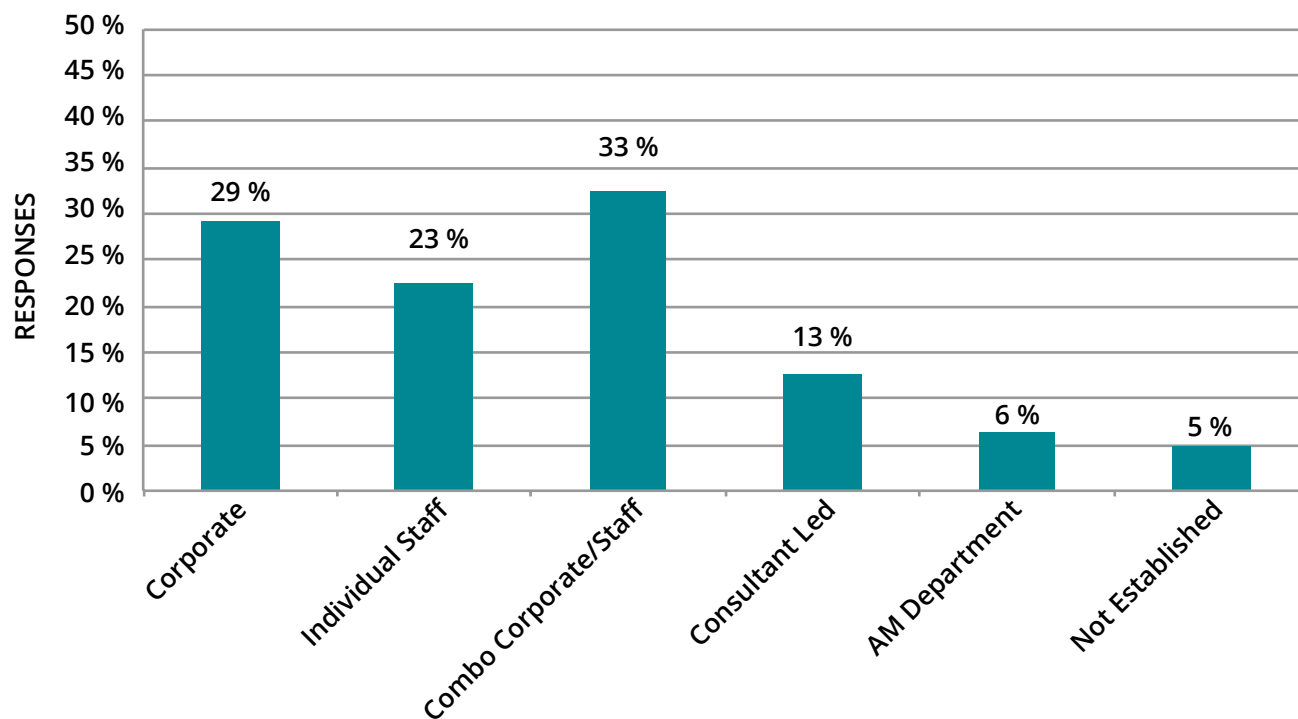
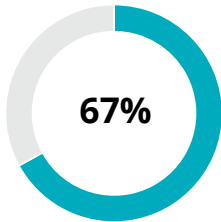
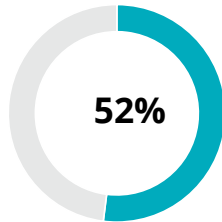


FIGURE 1: LOCAL GOVERNMENTS ASSET MANAGEMENT LEADERSHIP APPROACHES

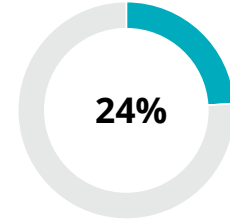
**PEOPLE AND INFORMATION:** Local governments were asked about communication and information sharing practices **with staff**:



67% reported that some staff understand the need for asset management

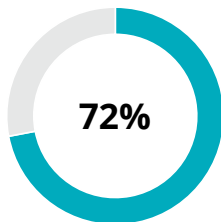


52% reported that staff understand the benefits of asset management

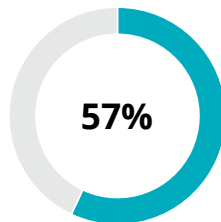


24% of staff work plans include asset management activities

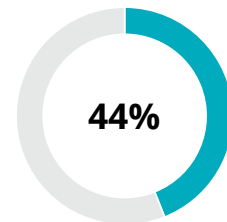
Similar questions were asked regarding communication and information sharing practices with **elected officials**:



72% of local governments reported that elected officials understand the need for asset management



57% reported that elected officials understand the benefits of asset management

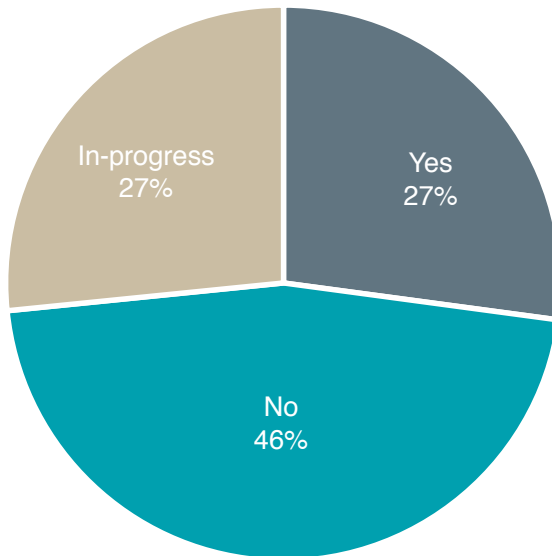


44% of elected officials endorse asset management activities



49% of local government respondents share progress on asset management with elected officials

FIGURE 2: LOCAL GOVERNMENTS WITH FORMALIZED ASSET MANAGEMENT PROCESSES



**54 %**

of local governments have, or are in the process of, developing formalized asset management processes

**FORMAL ASSET MANAGEMENT PROCESS:** Organizations seeking to formalize asset management activities could do so by tailoring processes that reflect community values, priorities, and capacity in a way that is incremental and scalable. Formalized asset management processes are established in part to prioritize an organization's commitment to asset management. Results from the survey showed that 54% of local governments have, or are in the process of developing, formalized asset management processes (Figure 2).

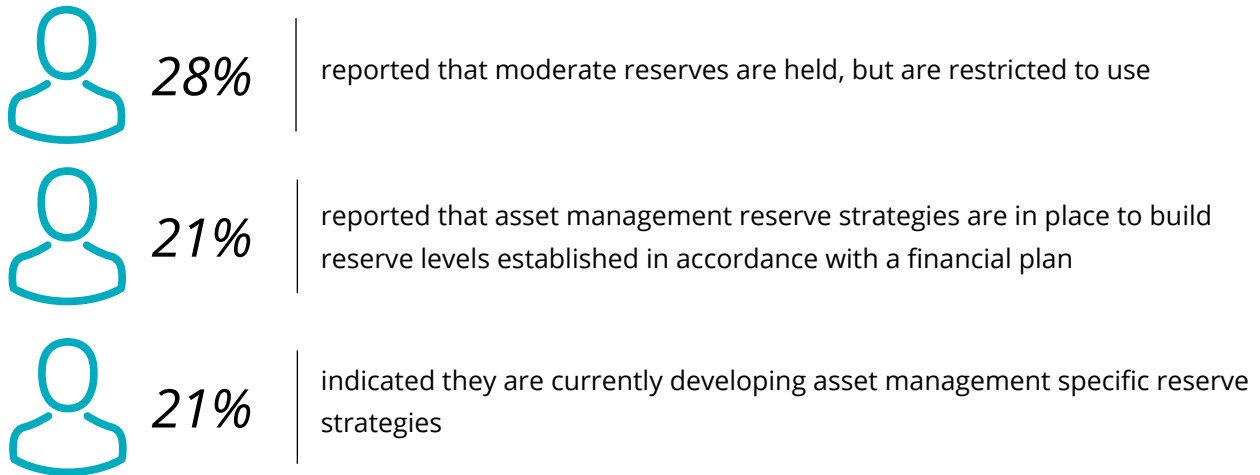


City of Chilliwack, Bicycle Lanes

## FINANCES

A strategic lens must be used when looking at how local governments utilize revenues, reserve funds, and debt for asset management activities. Depending on the type of expenditure, current interest rates, and existing reserves, the perspective, need, and/or financial circumstances, an organization may utilize these tools to fund new capital, asset renewal, and replacement. The intention of the financial data analysis shared here is to provide insight into the pathways and strategies organizations employ to fund infrastructure improvements.

**RESERVE FUNDS:** Local governments were asked to describe a perspective on reserve funds:



**DEBT:** Results from the survey showed that 57% of local governments described debt levels as prudent and reasonable, used strategically and is in line with a financial plan.

**REVENUE SOURCES:** Results from the survey showed that 48% of local governments collect revenues that are sufficient and reliable to fund requirements for the next five years and 20% reported that revenues fluctuate year to year with no linkages between reserves and a financial plan.

**EXISTING LEVIES FOR CAPITAL INFRASTRUCTURE RENEWAL:** Local governments were surveyed regarding the use of other financial tools that have been developed to meet the requirements of capital infrastructure renewal. Results from the survey showed that 48% of local governments have developed a tool to help support the cost of infrastructure renewal.

# PART 1 ASSET MANAGEMENT FRAMEWORK SURVEY FINDINGS

## SECTION 2: ASSETS

This section of the survey focused on the assessment of information on existing capital assets. The assessment of assets includes having access to information on the location and extent of assets; condition of assets; technical and customer level of service; risk assessment; and expenditures related to asset renewal and maintenance. The Framework describes information on assets as beneficial for guiding decision-making, aids organizations in identifying gaps, prioritizing activities based on community need, and improving overall service delivery.

Over 50% of local governments reported that information on existing assets was available at a quality that ranged from under developed to strong. On average, information as it related to risk and level of service was found to be under developed (Figure 3). Improving the condition of an asset is an ongoing process of continuous quality improvement (CQI). The practice of asset management is only as strong as its asset inventory, therefore ensuring the condition of all assets is known, that information is collected in a standardized, reproducible manner, and that information on assets is updated as required is key for ensuring CQI.

### HIGHLIGHTS OF SECTION 2: ASSETS

**LOCATION AND CONDITION OF ASSETS:** On average, 49% of local governments considered the completeness of information regarding asset location and general condition information for existing assets as competent (Figure 3).

**RISK:** On average, 28% local governments considered the completeness of information regarding risk as it relates to service delivery for existing assets as competent (Figure 3).

**LEVEL OF SERVICE:** On average, 41% of local governments considered the completeness of information regarding asset service levels as competent (Figure 3).

**ASSET EXPENDITURES:** On average, 41% of local governments considered the completeness of information regarding asset expenditures as competent (Figure 3).

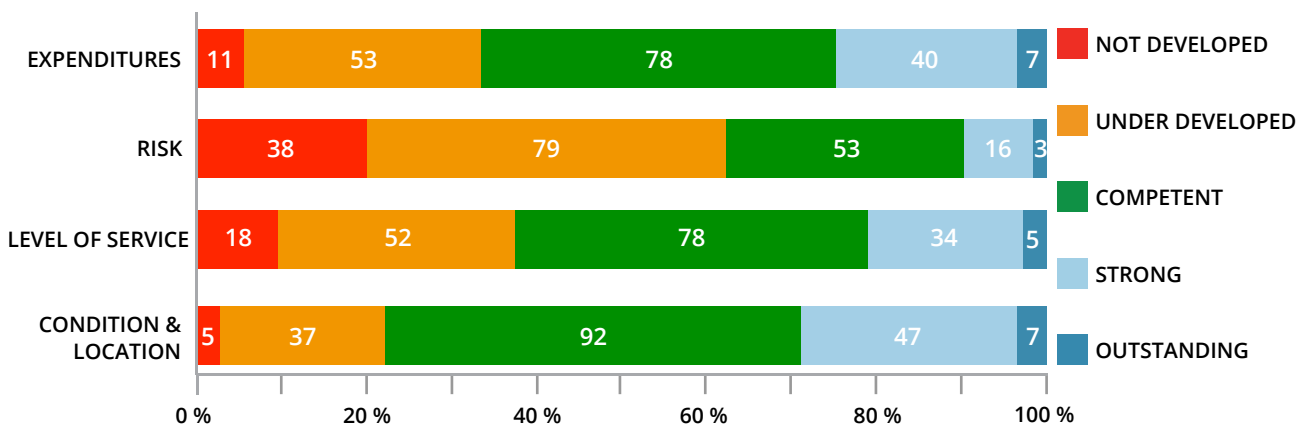


FIGURE 3: ASSESSMENT OF INFORMATION FOR EXISTING ASSETS: LOCATION, CONDITION, LEVEL OF SERVICE, RISK, AND EXPENDITURES

## PART 1 ASSET MANAGEMENT FRAMEWORK SURVEY FINDINGS

### SECTION 3: PLANNING

Planning for asset management focuses on activities that integrate asset management into corporate functions of the organization. These include the preparation of a policy formalizing corporate commitments, a strategy linking organization objectives to individual departments', asset plans for existing capital assets, and integrating planning documents into long-term financial plans.

Overall, responses on planning for asset management showed that over 50% of local governments have integrated asset management activities into long-term financial plans, while efforts to develop policies, strategies, and plans for existing assets have been less frequently developed (Figure 4). Planning for asset management can be an incremental step for local governments who have developed an asset inventory and have a clear understanding of available capacity and community priorities.

#### HIGHLIGHTS FOR SECTION 3: PLANNING FOR ASSET MANAGEMENT

**POLICY:** On average, 29% of local governments have developed an asset management policy. Of those with existing policies, on average, 33% were considered competent to strong when compared to typical practices described by the Framework (Figure 4).

**STRATEGY:** On average, 29% of local governments have developed a management strategy. Of those with existing strategies, on average, 39% of strategies were considered competent to strong when compared to typical practices described by the Framework (Figure 4).

**PLAN:** On average, 19% of local governments have completed plans for less than twenty-five percent of existing assets. Of those with existing asset management plans, on average, 35% of plans were considered competent to strong when compared to typical practices described by the Framework (Figure 4).

**INTEGRATING ASSET MANAGEMENT AND FINANCIAL PLANS:** On average, 68% of local governments have integrated asset management processes into long-term financial plans. Of those local governments, 31% of long-term plan integrations were considered competent to strong when compared to typical practices described by the Framework (Figure 4). On average, 66% of local governments described the term of a financial plan as five (5) or more years.



*Planning for asset management can be an incremental step for local governments who have developed an asset inventory and have a clear understanding of available capacity and community priorities.*

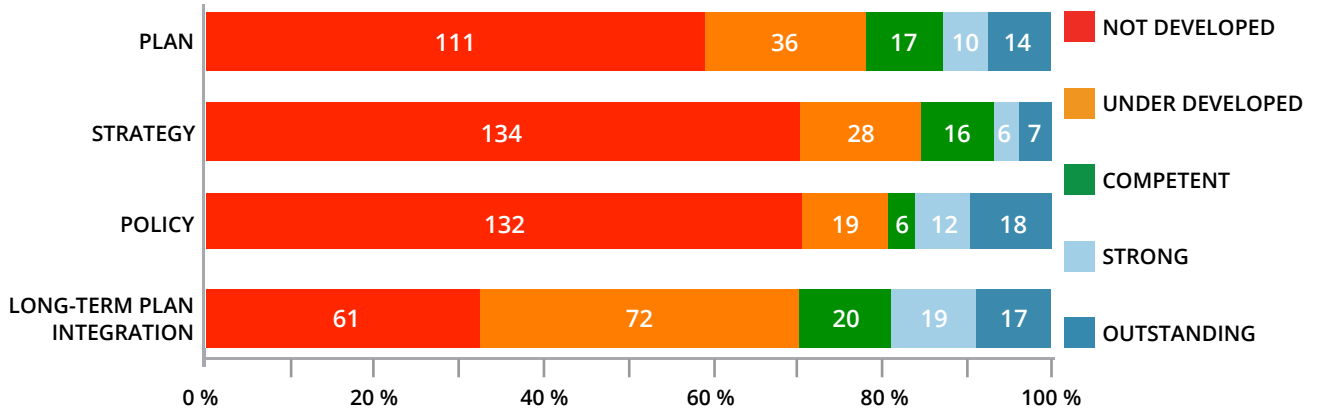


FIGURE 4: ASSET MANAGEMENT PLANNING



*Reporting on asset management ensures stakeholders are informed on the progress being made towards sustainable service delivery.*

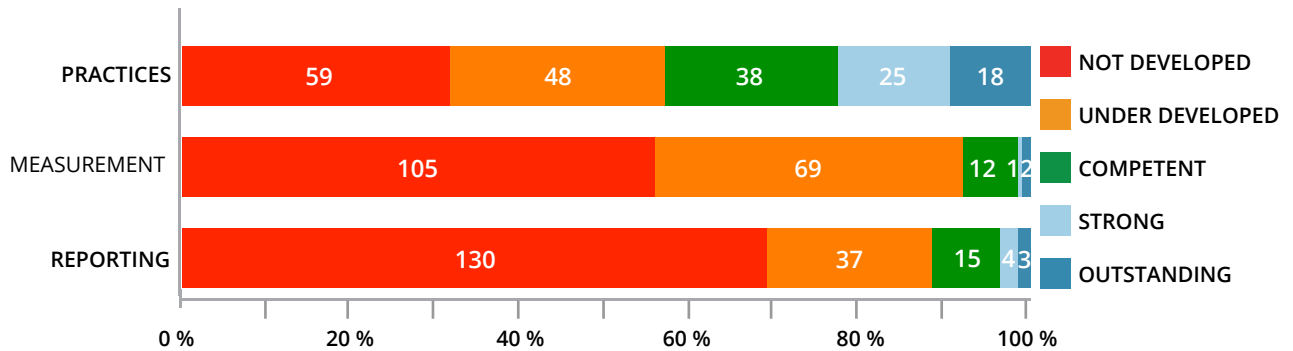


FIGURE 5: ASSET MANAGEMENT IMPLEMENTATION



## PART 1 ASSET MANAGEMENT FRAMEWORK SURVEY FINDINGS

### SECTION 4: IMPLEMENTATION

The implementation component of asset management is used to evaluate organizational capacity and ensures ongoing review, updating, and reporting of asset management activities to stakeholders. Implementation activities include establishing timelines and minimum requirements for asset management activities based on risk and criticality of the asset and measuring and reporting on progress made towards achieving sustainable service delivery.

Responses on implementation practices showed that over 50% of local governments have developed implementation practices with measurement and reporting of asset management activities as significantly less (Figure 5). Measuring the progress of activities ensures organizations are meeting the expectations set out in asset management plans, while reporting on asset management ensures stakeholders are informed on the progress being made towards sustainable service delivery.

#### HIGHLIGHTS FROM SECTION 4: IMPLEMENTATION OF ASSET MANAGEMENT

**PRACTICES:** On average, 69% of local governments have developed asset management implementation practices. Of those with existing implementation practices, on average, 49% were considered competent to strong when compared to typical practices described by the Framework (Figure 5).

**MEASUREMENT:** On average, 44% of local governments have measured and tracked the progress of asset management activities. Of those who are measuring and tracking progress, on average, 16% were considered competent to strong when compared to typical practices described by the Framework (Figure 5).

Results regarding the use of specific indicators to measure asset management outcomes, on average, 39% of local governments reported using financial indicators; 38% reported using indicators to measure social outcomes from asset management; and 47% reported using indicators to measure environmental outcomes.

**REPORTING** On average, 31% of local governments have reported out on the asset management activities. Of those who are reporting out on the progress, on average, 32% were considered competent to strong when compared to typical practices described by the Framework (Figure 5).

**CONTINUOUS IMPROVEMENT:** Asset management is an ongoing exercise of continuous quality improvement (CQI) that is incremental, tailored to the specific needs and capacity of individual local governments.

On average, 21% of local governments have reviewed or updated asset management practices since their initial development and 32% reported updating asset inventories.

## PART 2 SURVEY FINDINGS FOR ASSET CATEGORIES

### SECTION 6-11 SUMMARY OF ALL ASSET CATEGORIES

The Framework describes effective asset management planning as requiring up-to-date condition assessments for all core assets, as well as information on historical and, more importantly, replacement costs of assets and associated asset components. Information on the condition and replacement cost of assets is used to sufficiently estimate anticipated costs of asset renewal, also known as reinvestment, and should be linked to a long-term financial plan.

Part two of the survey was designed based on the assets categories described in the [2016 Canadian Infrastructure Report Card](#). The asset categories surveyed in part two of the survey included roads & bridges, potable water, wastewater, storm water, sports & recreation facilities, and other buildings & facilities. Responses on the average condition of assets were found to be fair to good while data provided on historical cost of assets were incomplete.

**CONDITION:** On average, the condition for potable water, wastewater, sports & recreation facilities, and other buildings & facilities was described as good while roads & bridges and storm water were reported as in fair condition (Figure 6). However, when compared to the results from the 2016 Canadian Infrastructure Report Card (2016 CIRC), part two survey results showed a slightly poorer average condition rating for all six asset categories. For potable water assets, the 2016 CIRC results identified physical condition as 3% very poor and 9% poor whereas part two survey results identified the same assets as 3% very poor and 10% poor. The greatest discrepancy between the 2016 CIRC and part two survey results was found for roads and bridge assets. Where part two survey results identified roads and bridges as 5% very poor and 14% poor, the 2016 CIRC, which separated roads and bridges into two categories, identified roads as 5% very poor and 9% poor and 1% for bridges as very poor and 3% in poor physical condition.

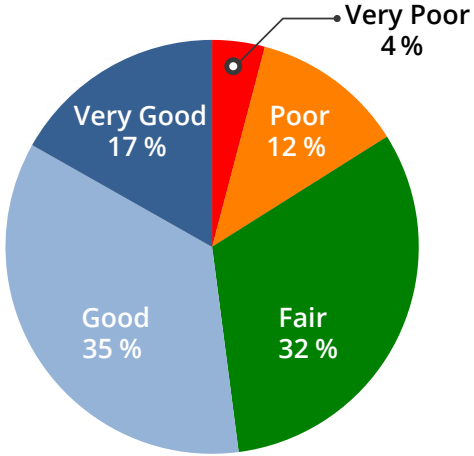
**HISTORICAL COSTS, REPLACEMENT COSTS, and RENEWAL FUNDS:** When collected, information on tangible capital assets can be used to identify the infrastructure gap that is the gap between available funding and requirements for existing asset renewal and replacement. Invested in regularly, asset renewal can help maximize the total life cycle of an asset.

Local governments were asked to provide values for existing historical cost, replacement cost, and renewal fund. On average, 21% of local governments reported historical costs, 16% reported replacement costs, and 8% reported renewal funds.

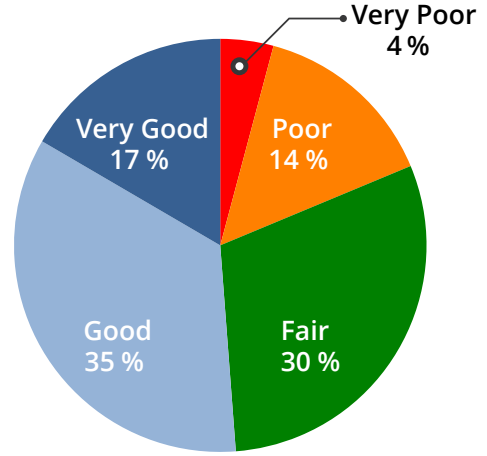


City of Prince George, Cameron Street Bridge

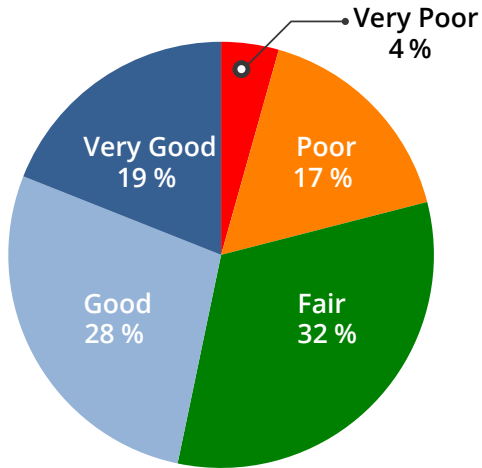
Wastewater Assets



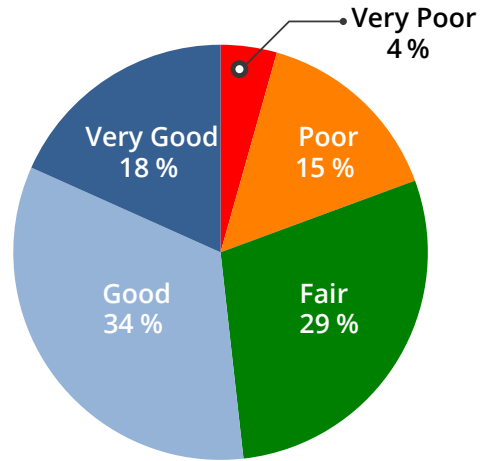
Sports and Recreation Assets



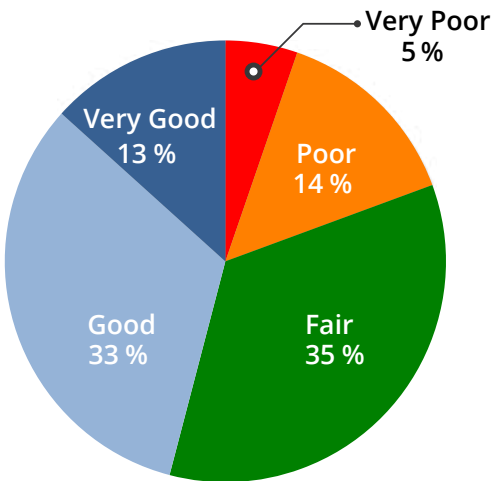
Storm Water Assets



Buildings and Facilities



Road & Bridge Assets



Potable Water Assets

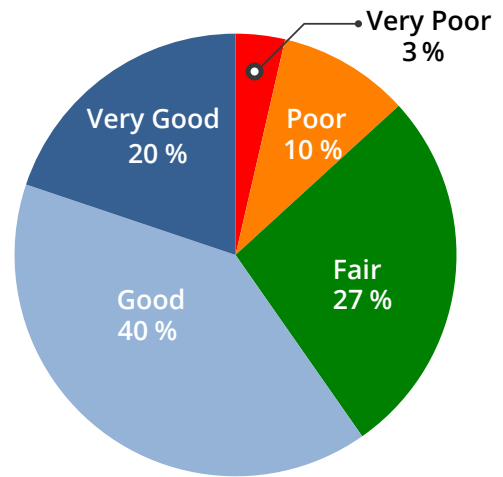


FIGURE 6: AVERAGE CONDITION RATING FOR EXISTING ASSETS

## CONCLUSION

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The results from the survey demonstrate that BC local governments are engaged and pursuing asset management activities. While many local governments identified basic awareness and knowledge, survey responses showed that the majority of local governments are in the early stages of asset management program development.

The Framework identifies that asset management is a continuous quality improvement process. Further, it identifies that there is no defined 'starting point' for implementing asset management and local governments may choose to develop and implement practices within their respective organizations based on individual needs and capacity. However, the cumulative survey results have identified a number of gaps that highlight specific areas and provide some guidance to where provincial-wide resources are needed to support local government asset management reporting.

### PART ONE SURVEY RESULTS

Part one of the survey identified a continued need for building awareness and education for both local government staff and elected officials. While general understanding and knowledge has been developed at a staff and elected official level, only 20% of local government staff understand their role in asset management. Further, only 8% of local governments reported having integrated asset management activities across departments and divisions. Typically, an effective asset management program requires guidance and commitment from local government staff and elected officials. The survey results indicated not only the need for building awareness and education. Over time, organizations may find it beneficial to move beyond a focus of business processes and develop a culture of asset management.

The Framework describes planning for asset management as key to formalizing commitments and insuring the integration of asset management across all organizational business processes. Over half of BC local governments identified as not having developed planning documents as described by the Framework. Results identified over 58% of local governments have not developed asset management policies, strategies, and plans. For asset management plans to be effective, up-to-date information/data on existing assets is required. This includes information on the location and condition of assets, risk assessments, and level of service assessments. Results from the survey indicate that local governments have not effectively integrated risk and risk assessment and, to a lesser degree, level of service, into their asset management planning processes.

While 95% of local governments reported having long-term financial plans (five years or greater), results from the survey showed that one-third of local governments have not integrated asset management activities and long-term financial plans. However, the survey results did not distinguish long-term financial planning as 20 years or greater in scope. A focus on developing financial plans greater than five years will benefit the management and planning for existing capital asset needs. In BC, five year financial plans are required by legislation. With assets that have an expected useful life of over 75 years, long-term

financial plans with a 20-year horizon should not be uncommon. Building practices that integrate long-term financial planning with asset management practices will lead local governments towards sustainable service delivery.

Plans and practices are developed to be implemented. Survey results showed that 68% of local governments reported developing asset management implementation practices. However, over half of local governments also reported not measuring the performance of asset management programs, and fewer less reported on the progress of asset management implementation. Performance measurement indicators that are reproducible and reflect community values are essential for tracking improvements in asset management over time. As described by the Framework, best practices in performance measurement use high-level, corporate wide indicators expressed in financial terms as overall indicators of progress.

## PART TWO SURVEY RESULTS

Part two survey results regarding the physical condition of existing assets were found to be consistent with national results reported by the *2016 Canadian Infrastructure Report Card*. It is acknowledged that the 2016 CIRC is a national average, and only utilized data from 24 BC local governments. When local governments were asked to provide data on the historical cost of existing assets, on average, only 21% provided responses. The inability of local governments to provide historical costs for existing assets was not anticipated. Moving forward, UBCM will review the survey design for barriers that limited organizations from providing historical costs for existing assets.

In order to plan for asset replacement and renewal, long-term financial plans rely on accurate replacement cost information for future budget projections and accurate investment projections. Responses from the survey showed 84% of local governments reported not having information on replacement costs of existing assets. Moving towards narrowing the infrastructure gap, local governments will benefit from having good quality data on replacement costs for existing assets. Once this has been achieved, organizations may find it easier to develop strategies for funding asset renewal and replacement.

The survey results illustrate that BC local governments are engaged and active in moving forward with asset management. With respect to capacity for asset management, local governments are at various stages of maturity and have assets that are in need of immediate replacement and/or rehabilitation (very poor and/or poor condition), it is important to ensure that the current activity and interest in asset management is maintained. To support local governments with making improvements in asset management, together with Asset Management BC and Ministry of Municipal Affairs and Housing, UBCM will support and encourage the development of asset management tools, resources, and training opportunities. Local governments should use their results from the survey to develop an implementation plan, as required under the Gas Tax Agreement. The results from the Phase 1 survey can assist local governments in identifying gaps and setting priorities for improvement in asset management and sustainable service delivery.

## APPENDIX A: METHODOLOGY

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The *Phase 1 Asset Management Assessment Form Baseline Survey* (survey) was developed in consultation with BC local governments, Asset Management BC (AMBC) and the Ministry of Municipal Affairs and Housing. The survey was developed to align with the Framework, which describes the process and typical practices for undertaking asset management in BC. An additional resource used to guide the development of the survey was the *2016 Canadian Infrastructure Report Card*.

The survey was divided into two sections and asked over 50 detailed questions on inventory, condition, and management of local government owned infrastructure. The self-reported results provided both qualitative and quantitative information on local government owned assets and/or assets leased where the responsibility of the leaser included maintenance and capital improvements. Where a question resulted in a qualitative response or the local government provided additional information, responses were interpreted and categorized as necessary.

Following suggested typical practices described by the Framework, part one of the survey consisted of a high-level overview on the current state of asset management practices. Part two of the survey had local governments responding regarding ownership, condition and financial information (as of December 31, 2014) for six asset classes. The asset classes surveyed included Roads & Bridges, Potable Water, Waste Water, Storm Water, Sports & Recreation Facilities, and Other Buildings and Facilities.

A number of questions in the survey required local governments to provide a condition-based response or choose multiple selections based on typical asset management practices described by the Framework (response scales found below). The collection of condition-based responses for capital assets did not require local governments to identify a data collection methodology. Where questions allowed for multiple selections, a scale was devised to capture how many typical practices were currently being utilized.

The survey was designed to be accessible to local governments of all sizes and with all levels of experience in asset management. A number of factors may need to be considered when reviewing the results contained within this report. While UBCM made considerable effort to collect only the best available information, due to the large number of questions and the level of detail sought, not all of the data presented here is equally weighted.

A number of variables impact how asset management data was reported. These include:



**CAPACITY OF LOCAL GOVERNMENT:** The size (population, number of staff, diversity of services, and resources) of a local government can impact an organization's ability to undertake asset management activities. Capacity can also affect the level of detail, quality, and accuracy of information that is available.

**PERCEIVED KNOWLEDGE OF ASSET OWNERSHIP:** Defining ownership and providing financial information on assets can be complicated. Some local governments do not own all of their major assets, assets can be leased, with maintenance and renewal expectations, while others cost-share infrastructure between multiple local governments. This can make reporting challenging especially when it comes to duplications in reporting ownership and determination of historical and replacement costs and renewal values.

**FAMILIARITY WITH THE SUBJECT AREA:** Previous experience with asset management activities can result with more experienced respondents providing a higher level of detail for assets versus a respondent who has little to no experience with asset management.

**RANKING DESCRIPTION FOR ASSESS SECTION**

**RANKING DESCRIPTION FOR PLAN & IMPLEMENT SECTIONS**

 <p><b>Not Developed</b></p> <p><b>Under Developed</b> - Completeness and accuracy of data is unknown, availability of data is unknown, and generally work on this topic has not been confirmed.</p> <p><b>Competent</b> - Foundation of AM, data is not necessarily complete or fully accurate, information gaps exist, significant amount of missing data, but is sufficient for basic AM assessment.</p> <p><b>Strong</b> - Improved level of completeness and accuracy of data compared to competent, detailed and accurate analysis, greater understanding of current and future situations.</p> <p><b>Outstanding</b> - High level of accuracy and completeness of data, continuous improvement practices in place, long term planning effect.</p>	 <p><b>Not Developed</b> - Number of multiple choice selections 0</p> <p><b>Under Developed</b> - Number of multiple-choice selections 1-3</p> <p><b>Competent</b> - Number of multiple-choice selections 4-6</p> <p><b>Strong</b> - Number of multiple-choice selections 7-9</p> <p><b>Outstanding</b> - Number of multiple-choice selections 10+</p>
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## APPENDIX B: PHASE 1 BASELINE SURVEY QUESTIONS AND RESULTS

### Part 1

#### Section 1: Capacity Building for Asset Management

C.1) Has your local government established a formal AM process?

(Single Response)

SELECTION	RESPONSE	PERCENT
Yes	51	27%
No	87	46%
Other	1	1%
In progress	50	26%

C.2) AssetSMART 2.0 is a tool used by local governments to assess and improve organizational capacity. Has your local government used AssetSMART to evaluate organizational capacity for AM?

(Single Response)

SELECTION	RESPONSE	PERCENT
Yes	49	26%
No	140	74%



**C.2.1) Select the option that best describes how your organization became familiar with AssetSMART:**  
(Single Response)

SELECTION	RESPONSE	PERCENT
Staff completed a consultant lead training session	30	16%
Staff completed an internally lead (lead by your local government) training session	15	13%
Other	1	1%

**C.2.2) Based on your previous assessment using AssetSMART 2.0, for each of the four core elements indicate your local government's overall capacity level for AM:**  
(Single Response)

SELECTION	LEVEL				TOTAL
	1	2	3	4	
Assets	7	30	8	3	48
Information	12	29	6	1	48
Finances	6	29	13	0	48
People	10	27	10	1	48

C.3) What best describes the leadership approach for AM at your local government (Select all that apply):

SELECTION	RESPONSE	PERCENT
Consultant led	24	13%
Led by individual staff following a bottom-up approach	44	23%
Led by council/board members	1	1%
A combination of staff and council/board members lead AM following an integrated approach	63	33%
Led by CAO/CFO following a corporate, top-down approach	55	29%
AM department leads AM activities	12	6%
A leadership approach for AM has not been established	9	5%

C.4) What best describes AM communication and information sharing practices between staff and AM leads at your local government (Select all that apply):

SELECTION	RESPONSE	PERCENT
All staff understand the need for AM	40	21%
Some staff understand the need for AM	126	67%
Staff understand the benefits of AM	98	52%
Staff understand their role in AM	37	20%
Staff understand the need for continuous learning to develop their knowledge, experience and capacity for AM	96	51%
Staff work plans include time for AM activities	45	24%
Integration of AM practices across departments/divisions is commonplace	16	8%
Other	2	1%
Staff have not been engaged	3	2%

C.5) What best describes AM communication and information sharing practices with elected officials and AM leads at your local government (Select all that apply):

SELECTION	RESPONSE	PERCENT
Elected officials understand the need for AM	137	72%
Elected officials understand the benefits of AM	108	57%
Elected officials have championed AM activities as a special interest	23	12%
Progress on AM implementation is shared with elected officials	93	49%
Elected officials understand the need for continuous learning to develop their knowledge, experience and capacity for AM	37	20%
Elected officials endorse AM practices	83	44%
Integration of AM practices across departments/divisions is commonplace	16	8%
Other	8	4%
Elected officials are in the process of being engaged	3	2%

C.6) Has your local government established a specific levy(s) for AM renewal/replacement of existing capital assets?

SELECTION	RESPONSE	PERCENT
Yes	89	48%
No	98	52%
Blank	1	1%
Other	0	0%

**C.7) Reserve Funds – Select the option that best describes your local government’s reserve fund:**

SELECTION	RESPONSE	PERCENT
Asset management reserve strategies are in place to build reserve levels established in accordance with a long-term financial plan	40	21%
Asset management reserve strategies under development	40	21%
Asset management reserves are held and replenished at levels established in accordance with a long-term financial plan	14	7%
Minimal reserves are in place, but are restricted to use	23	12%
Moderate reserves are held, but are restricted to use	52	28%
Non-existent, there are no reserves in place	2	1%
Reserves in place to buffer short-term revenue fluctuations	18	10%

**C.8) Debt - Select the option that best describes your local government’s debt levels:**

SELECTION	RESPONSE	PERCENT
Debt levels are high and a debt management strategy is being considered	7	4%
Debt levels are prudent and reasonable; Debt is a tool we use strategically and is in line with a long-term financial plan	107	57%
Debt levels are reasonable, but debt is trending upwards	32	17%
Other	42	22%

### C.9) Revenue - Select the option that best describes your local governments revenue stream(s):

SELECTION	RESPONSE	PERCENT
Major controllable revenues are sufficient, predictable and stable to fund long term sustainable service delivery	18	10%
Revenues are sufficient and reliable to fund requirements for the next 10 years	24	13%
Revenues are sufficient and reliable to fund requirements for the next five years	90	48%
Revenues are sufficient, predicable, and stable to fund long-term sustainable service delivery	16	9%
Revenues fluctuate year to year with no linkages between reserves and a long-term financial plan	38	20%

## Section 2: Assets

### A.1) and A.2) Location and Condition of Assets

SELECTION	NOT DEVELOPED	UNDERDEVELOPED	COMPETENT	STRONG	OUTSTANDING
Information on the location of assets are	1	24	79	69	15
Information on the age of assets are	2	21	93	63	9
Information on the installation dates for assets are	4	19	97	58	10
Information on the remaining useful life of assets are	6	48	91	40	3
Information on the expected retirement of assets are	9	60	87	30	2
Information on the quality and suitability of assets are	9	49	104	24	2

### A.3) Level of Service

SELECTION	NOT DEVELOPED	UNDERDEVELOPED	COMPETENT	STRONG	OUTSTANDING
Available information on customer level of service	26	64	65	27	6
Available information on technical level of service	24	54	66	40	4
Available information on existing asset capacity levels	12	46	91	32	7
Available information on existing asset demand	12	46	86	36	7
Available information on expected future demand	18	52	81	34	3

### A.4) Risk

SELECTION	NOT DEVELOPED	UNDERDEVELOPED	COMPETENT	STRONG	OUTSTANDING
Risk assessments have been completed for asset	28	90	59	8	3
Information on potential risks that may impact sustainable service delivery	26	76	67	17	2
The criticality (perceived importance) regarding asset(s) failure	22	72	65	27	2
Assets have a risk register that accounts for the consequence of failure	57	87	32	9	3
Assets have a risk register that accounts for the probability of failure	59	88	30	8	3
Renewal, repair and/or replacement of assets is prioritized by risk or consequence of failure	35	62	63	24	4

### A.5) Current Expenditures

SELECTION	NOT DEVELOPED	UNDERDEVELOPED	COMPETENT	STRONG	OUTSTANDING
Available information on capital renewal costs for assets	12	59	76	34	7
Available information on operational costs for assets	5	30	91	56	6
Available information on planned maintenance costs for assets	6	53	85	40	4
Available information on reactive maintenance costs for assets	12	73	68	32	3
Available information on historical costs for assets	4	32	81	56	15
Available information on current replacement costs for assets	13	56	76	39	4
Available information on write-down and disposal costs for assets	16	53	74	37	8
Available information on expected dates for acquiring new assets	16	66	73	27	6

### Section 3: Planning for Asset Management

#### P.1) What best describes your local government's AM policy (Select all that apply):

SELECTION	RESPONSES
An AM policy does not exist	132
The policy establishes corporate commitments to AM	48
The policy has been integrated into corporate plans	25
The policy provides context for AM integration over all lines of business	28
The policy ensures that service levels meet community priorities	30
The policy ensures that service levels meet council/board priorities	22
The policy defines clear expectations for developing asset inventories	29
The policy defines clear expectations for the maintenance of asset inventories	27
The policy makes commitments for working towards improving service levels	15
The policy makes commitments for working towards extending the useful life of assets	26
The policy provides staff with direction for integrating AM plans into the Long Term Financial Plan	27
The policy sets clear expectations for monitoring assets	22
The policy sets clear expectations for reporting on the status of assets	19
The policy provides a commitment for staff to report regularly to the community on the status of the policy	21
The policy has been endorsed by council/board	42
The policy sets clear expectations for review, update and/or replacement	23
An AM policy exists, but none of these selections apply	4



**P.2) What best describes your local government's AM strategy (Select all that apply):**

SELECTION	RESPONSES
An AM strategy does not exist	134
The strategy outlines AM practices	29
The strategy outlines connections to the AM policy	18
The strategy describes the current state of assets	25
The strategy identifies target levels of service	10
The strategy identifies a desired level of service for each asset	9
The strategy identifies service delivery risks to be managed	11
The strategy provides AM implementation guidelines for each asset category	9
The strategy establishes estimated timelines for improving each asset category	15
The strategy communicates how AM is linked to corporate plans	19
The strategy summarizes projected resource requirements for developing a AM plan(s).	17
The strategy summarizes projected future resource requirements for AM.	17
The strategy makes commitments for annual reporting on AM to the community	8
The strategy provides direction for improving capacity levels	10
The strategy is aligned with community priorities	21
The strategy sets clear expectations for AM updates	7
The strategy identifies an approach for updating the strategy	13
An AM strategy exists, but none of these selections apply	9

**P.3) What best describes your local government's status towards completing AM plans for all asset categories:**

SELECTION	RESPONSES
AM plans have not been developed for any asset categories	96
Less than twenty-five percent (25%) of asset categories have AM plans	35
Between twenty-five percent (25%) and fifty percent (50%) of asset categories have AM plans	23
Between fifty percent (50%) and seventy-five percent (75%) of asset categories have AM plans	16
Between seventy-five percent (75%) and ninety-nine percent (99%) of asset categories have AM plans	13
All asset categories have AM plans	5

**P.4) What best describes your local government's AM plan(s) (Select all that apply):**

SELECTION	RESPONSES
AM plan(s) do not exist	111
Plan(s) support the implementation of the AM policy and strategy	35
Plan(s) contain condition-based lifecycle adjustments	31
Plan(s) comprise information on asset condition	55
Plan(s) provide information on current level of service	31
Plan(s) provide information on desired level of service	22
Plan(s) describe gaps between current and desired levels of service	18
Plan(s) establish service goals	20
Plan(s) take community priorities into consideration	23
Plan(s) describe known risks	31
Plan(s) describe innovative practices	16
Plan(s) utilize a standardized approach when discussing assets	30
Plan(s) describe staff resources required to meet goals	15
Plan(s) provide a timeline for implementation	40
Plan(s) provide a timeline for plan reviews	16
Plan(s) provide criteria for plan review	7
AM plan(s) exist, but none of these selections apply	6

**P.5) Select the option that best describes your local government's LTFP:**

SELECTION	RESPONSES
Our local government does not have a LTFP	28
Our local governments LTFP is based on a four year planning cycle	27
Our local governments LTFP is based on a five to 10 year planning cycle	108
Our local governments LTFP is based on a 20-11 year planning cycle	10
Our local governments LTFP is based on more than a 20 year planning cycle	7

**P.6) What best describes the integration of your local government's AM & LTFP plans  
(Select all that apply):**

SELECTION	RESPONSES
AM plan integration with the LTFP is in progress	66
The LTFP exists, but linkages between AM plan(s) and LTFP have not been made	37
The LTFP identifies gaps between AM long-term potential needs and available funding	30
The LTFP includes an overview of requirements for capital asset renewal	57
The LTFP includes an overview of requirements for capital asset upgrades	44
The LTFP includes an overview of requirements for new capital assets	46
The LTFP includes an overview of requirements for asset operations	42
The LTFP includes an overview of requirements for asset maintenance	40
The LTFP identifies opportunities for reducing costs associated with assets	12
The LTFP identifies opportunities for increased funding to support assets	26
The LTFP provides a basis for developing AM strategies for service, asset and financial sustainability	25
The LTFP provides a basis for reviewing service sustainability	18
The LTFP provides a basis for reviewing asset sustainability	22
The LTFP provides a basis for reviewing financial sustainability	42
The LTFP provides a basis for updating AM plans with financial strategies for sustainability	20
The LTFP provides a basis for updating the AM strategy with financial strategies for sustainability	11
The LTFP includes performance measures to track moving toward financial sustainability	10
The LTFP provides criteria for AM plan review	7

## Section 4: Implementation of Asset Management

I.1) What best describes you local government's AM implementation practices (Select all that apply):

SELECTION	RESPONSES
AM implementation practices are not defined	106
Practices include updating asset inventories on a regular basis	104
Practices include updating asset replacement costs as needed	74
Practices include implementing risk management plans	31
Practices include implementing asset maintenance projects	77
Practices include implementing asset renewal projects	80
Practices include holding regular AM team meetings to review implementation progress	32
Practices include reviewing lifecycle analysis of assets	40
Practices include updating related corporate plans to reflect changes in AM practices	21
Practices include implementing appropriate AM systems to support the management of AM data	43
Practices include developing staff knowledge transfer and succession plans	43
Practices include updating and/or developing job descriptions to align with AM requirements	17
Practices include using AM data to guide decision making	54
Practices ensure that quality information on assets is available to staff who require it	47
AM implementation practices exist, but none of these selections apply	4

**I.2) What best describes your local government's progress towards measuring AM activities (Select all that apply):**

SELECTION	RESPONSES
AM activities are not measured	113
We measure progress toward sustainable service delivery using best practice, high level corporate wide indicators that track progress annually over long periods of time	26
We measure progress toward reducing infrastructure backlogs using best practice, high level corporate wide indicators that track progress annually over long periods of time	20
We measure high level cost of service, for each service, using measures our citizens can easily relate to and understand	19
Measuring AM activities has resulted in the development of strategies that reduce infrastructure backlogs	15
Measuring AM activities has resulted in the development of strategies for reaching desired service levels	10
Measuring AM activities is used to identify communication pieces to highlight for community education and outreach	7
Performance measures include tracking customer satisfaction	22
Performance measures include tracking technical levels of service	21
Measuring AM activities is used to identify efficient and effective cost recovery opportunities	10
The Asset Management BC Roadmap is used to measure AM activities	30
Other best practice tools are used to measure AM activities	10
AM activities are measured, but none of these selections apply	13

**I.2.1) Based on your experience with the Asset Management BC Roadmap, choose the selection that best describes your local government's current level of AM:**

(Single response)

SELECTION	RESPONSES
Basic	22
Intermediate	4
Advanced	1
Other, please specify...	3

I.2.2) Describe in further detail the other best practice tools that are used by your local government to measure AM activities:

(Text response)

### 10 RESPONSES SUBMITTED

NAMS	AECOM	Hansen
Amanda	ISO 55000	AWWA
Key Performance Indicators	PeopleSoft	PeopleSoft

I.3) Describe below your local government's approach for measuring financial benefits of AM:

(Text response)

### 69 LOCAL GOVERNMENTS' PROVIDED RESPONSES

Net financial assets ratio	Asset condition	NBV of Assets Annual Capital Reserve Transfer
Funding gap analysis	Renewal funding ratio	Annual Expenditure Analysis
Reserve to asset ratio	Reserve fund analysis	Financial ratios
Capital forecasts	Operating surplus ratio	Total Capital Spend
Debt costs	Net debt ratio	Condition ratings
Revenue Annual Capital Debt	Asset sustainability ratio	Asset consumption ratio
Surplus ratio	Annual Capital Reserve Transfer	
Service level	Year to year comparison of costs	Net financial liability ratio
Regular tax increases	Net financial assets ratio	Life cycle analysis
Reserve analysis	Renewal funding	Maintenance surplus to reserves
Net debt ratio	Life cycle replacement cost	Reserves to operating expense ratio
Best management practices	Rate of annual asset consumption	Infrastructure deficit/capita
Measuring avoided costs-savings	Measuring requirements as defined by PSAB	Operating cost vs. CPI
Proposed vs. Actual Budget	Benchmarking	Decrease in reactive maintenance costs
Long-term funding plan	Net financial asset balance	Preventative maintenance program cost differences

I.4) Describe below your local government's approach for measuring social benefits of AM:  
(Text response)

### 43 LOCAL GOVERNMENTS' PROVIDED RESPONSES

Client feedback (complaints)	Client users quality of life	Advisory groups
Client use	Satisfaction surveys	Benchmarking
Decrease in assets measuring as in poor condition	Service levels	Performance measurement
Demand management	Water quality	Maintenance management system
KPIs	Triple bottom line approach for all new capital projects	

I.5) Describe below your local government's approach for measuring environmental benefits of AM:  
(Text response)

### 88 LOCAL GOVERNMENTS' PROVIDED RESPONSES

Demand management	Environmental impacts	Advisory groups
GHG	Sustainability Charter	Performance measurements
Service calls	E3 Green Fleet Program	Transportation plans
Stewardship activities	Energy conservation	Carbon tax
CARIP	Air quality	Climate action charter
Impacts on existing infrastructure due to climate change	Groundwater protection	Triple bottom line for all new capital projects
Ecoassets	Regulatory or grant requirements	

I.6) What best describes your local government's current AM reporting practices (Select all that apply):

SELECTION	RESPONSES
Reporting on AM implementation has not started	131
AM reports are easy to read	15
AM reporting utilizes asset condition and indicator data to tell the AM story	22
Reporting on AM includes debriefing staff	32
Reporting on AM includes debriefing council/board	38
AM reports are available for staff and council/board to review	26
AM reports are prepared in accordance with LTFP reviews	10
Reporting on AM is completed on an annual basis	25
AM reports are available for community members to review	19
Information related to AM (process/reporting) is easy to access (online, printed)	7
Reporting on AM includes a public outreach component	6
Reporting on AM includes public education component	7
Reporting on AM is completed, but none of these selections apply	2



## Section 5: Formal Asset Management Planning Process

### F.1) What best describes your local government's current AM reporting practices (Select all that apply):

SELECTION	RESPONSES
Assessed the current state of assets	107
Developed an asset inventory for at least one asset category	154
Developed an AM policy	52
Developed an AM strategy	32
Developed AM plan(s) for renewal assets (existing assets)	52
Developed AM plan(s) for upgrading assets and new assets	38
Integrated AM activities into a long term financial plan	46
Established AM implementation practices	23
Measured progress towards meeting AM goals	24
Reported to staff on the progress of AM	38
Reported to council/board members on the progress of AM	59
Reported to public on the progress of AM	24
Reviewed AM practices	38
Updated a portion of AM inventories	60
Updated all AM inventories	26
AM activities are being developed, but none of these selections currently apply	21
To date no AM management activities have been undertaken	13

## Part 2

### Section 6: Roads & Bridges

6.1) For the following asset components, describe the status of the asset: Asset is owned by the local government, or Asset is not owned by the local government.

(Single selection)

ASSETS	REPORTED OWNERSHIP	REPORTED OWNERSHIP %
Highways	13	7%
Arterial Roads	110	58%
Collector Roads	128	68%
Local Roads	157	83%
Lanes & Alleys	133	70%
Sidewalks	148	78%
Bridges	106	56%
Culverts <3 m	82	43%
Footbridges	114	60%

6.1.2) Referring to the asset categories provided, for each physical condition option enter a percentage for each category listed under the Road & Bridge network owned by your organization. (Multiple fields)

ASSETS	CONDITION DATA REPORTED	VERY POOR	POOR	FAIR	GOOD	VERY GOOD
Highways	15	1	11	38	38	16
Arterial Roads	84	4	11	35	30	20
Collector Roads	92	5	15	31	33	17
Local Roads	118	8	19	32	29	12
Lanes & Alleys	73	9	22	42	24	4
Sidewalks	98	4	16	33	34	13
Bridges	79	5	14	28	35	19
Culverts <3 m	47	9	16	45	27	4
Footbridges	78	3	4	31	46	16

6.2) In 2014, what was the historical value for the Road & Bridge network components owned by your organization? What was the estimated replacement value for the entire Road & Bridge network components by your organization? What was the annual renewal budget for the entire Road & Bridge network components owned by your organization?

ASSETS	REPORTED HISTORICAL COST	REPORTED REPLACEMENT COST	REPORTED RENEWAL VALUE
Highways	8	6	4
Arterial Roads	44	39	21
Collector Roads	52	44	25
Local Roads	74	58	40
Lanes & Alleys	33	29	5
Sidewalks	59	47	30
Bridges	49	41	18
Culverts <3 m	12	13	3
Cumulative Asset Submission	35	27	5

## Section 7: Potable Water

7.1) For the following asset components, describe the status of the asset: Asset is owned by the local government, or Asset is not owned by the local government.

(Single selection)

ASSETS	REPORTED OWNERSHIP	REPORTED OWNERSHIP %
Distribution pipes (dia. <416 mm)	170	90%
Transmission (dia. >416 mm)	98	52%
Water Treatment (incl. Wells)	139	74%
Water Pump Stations	144	76%
Water Reservoirs	143	76%

7.1.2) Referring to the asset categories provided, for each physical condition option enter a percentage for each category listed under the Potable Water network owned by your organization. (Multiple fields)

ASSETS	CONDITION DATA REPORTED	VERY POOR	POOR	FAIR	GOOD	VERY GOOD
Distribution pipes (dia. <416 mm)	115	6	15	34	32	13
Transmission (dia. >416 mm)	67	3	13	25	39	20
Water Treatment (incl. Wells)	103	2	4	20	45	29
Water Pump Stations	109	3	7	27	43	19
Water Reservoirs	116	4	9	29	40	18

7.2) In 2014, what was the historical value for the Potable Water network components owned by your organization? What was the estimated replacement value for the entire Potable Water network components by your organization? What was the annual renewal budget for the entire Potable Water network components owned by your organization? (Multiple fields)

ASSETS	REPORTED HISTORICAL COST	REPORTED REPLACEMENT COST	REPORTED RENEWAL VALUE
Distribution pipes (dia. <416 mm)	64	50	32
Transmission (dia. >416 mm)	36	35	19
Water Treatment (incl. Wells)	57	43	17
Water Pump Stations	60	45	18
Water Reservoirs	65	53	18
Cumulative Asset Submission	53	27	29

## Section 8: Storm Water

8.1) For the following asset components, describe the status of the asset: Asset is owned by the local government, or Asset is not owned by the local government. (Single selection)

ASSETS	REPORTED OWNERSHIP	REPORTED OWNERSHIP %
Culverts < 3 m	132	70%
Small Collection Pipes < 450 mm	147	78%
Large Collection Pipes 1500-450 mm	119	63%
Trunk Collection Pipes > 1500 mm	69	37%
Waste Water Drainage Pump Stations	51	27%
Waster Water Management Facilities	66	35%

8.1.2) Referring to the asset categories provided, for each physical condition option enter a percentage for each category listed under the Storm Water network owned by your organization. (Multiple fields)

ASSETS	CONDITION DATA REPORTED	VERY POOR	POOR	FAIR	GOOD	VERY GOOD
Culverts < 3 m	73	9	16	40	28	6
Small Collection Pipes < 450 mm	88	3	19	32	31	15
Large Collection Pipes 1500-450 mm	69	5	18	32	30	14
Trunk Collection Pipes > 1500 mm	33	6	24	34	19	16
Waste Water Drainage Pump Stations	23	3	17	32	20	27
Waster Water Management Facilities	33	0	5	22	37	35

8.2) In 2014, what was the historical value for the Storm Water network components owned by your organization? What was the estimated replacement value for the entire Storm Water network components by your organization? What was the annual renewal budget for the entire Storm Water network components owned by your organization? (Multiple fields)

ASSETS	REPORTED HISTORICAL COST	REPORTED REPLACEMENT COST	REPORTED RENEWAL VALUE
Culverts < 3 m	24	27	11
Small Collection Pipes < 450 mm	50	51	22
Large Collection Pipes 1500-450 mm	36	38	12
Trunk Collection Pipes > 1500 mm	13	17	6
Waste Water Drainage Pump Stations	15	16	2
Waster Water Management Facilities	13	13	5
Cumulative Asset Submission	49	25	26

## Section 9: Wastewater

9.1) For the following asset components, describe the status of the asset: Asset is owned by the local government, or Asset is not owned by the local government.

(Single selection)

ASSETS	REPORTED OWNERSHIP	REPORTED OWNERSHIP %
Forcemains	157	83%
Small Local Collection Pipes < 450 mm	167	88%
Large Local Collection Pipes 1500-450 mm	97	51%
Trunk Collection Pipes > 1500 mm	44	23%
Wastewater Treatment	108	57%
Wastewater Lagoons	85	45%
Waste Water Drainage Pump Stations	161	85%
Wastewater Storage	53	28%

9.1.2) Referring to the asset categories provided, for each physical condition option enter a percentage for each category listed under the Wastewater network owned by your organization. (Multiple fields)

ASSETS	CONDITION DATA REPORTED	VERY POOR	POOR	FAIR	GOOD	VERY GOOD
Forcemains	105	2	10	29	44	15
Small Local Collection Pipes < 450 mm	111	4	14	35	34	13
Large Local Collection Pipes 1500-450 mm	58	3	15	33	34	17
Trunk Collection Pipes > 1500 mm	17	4	13	41	24	17
Wastewater Treatment	76	3	7	27	40	23
Wastewater Lagoons	56	9	10	35	36	11
Waste Water Drainage Pump Stations	104	5	14	27	39	15
Wastewater Storage	25	3	13	29	32	24

9.2) In 2014, what was the historical value for the Wastewater network components owned by your organization? What was the estimated replacement value for the entire Wastewater network components by your organization? What was the annual renewal budget for the entire Wastewater network components owned by your organization? (Multiple fields)

ASSETS	REPORTED HISTORICAL COST	REPORTED REPLACEMENT COST	REPORTED RENEWAL VALUE
Forcemains	50	47	13
Small Local Collection Pipes < 450 mm	60	56	28
Large Local Collection Pipes -450 1500 mm	30	27	12
Trunk Collection Pipes > 1500 mm	6	6	1
Wastewater Treatment	49	41	16
Wastewater Lagoons	34	20	7
Waste Water Drainage Pump Stations	71	62	25
Wastewater Storage	9	6	1
Cumulative Asset Submission	53	27	27

## Section 10: Sports & Recreation

10.1) For the following asset components, describe the status of the asset: Asset is owned by the local government, or Asset is not owned by the local government.

(Single selection)

ASSETS	REPORTED OWNERSHIP	REPORTED OWNERSHIP %
Indoor Rinks: Single pad	81	43%
Indoor Rinks: 3-2 pads	26	14%
Indoor Rinks: 4 pads (quad)	2	1%
Indoor Rinks: +5 pads	0	0%
Outdoor Rinks	28	15%
Indoor Pool: 25 m	57	30%
Indoor Pool: 50 m or longer	17	9%
Indoor Pool: Leisure pools	48	25%
Outdoor Pool	42	22%
Wading Pool	26	14%
Splash Pool	45	24%
Skateparks (indoor/outdoor)	101	53%
Indoor Curling Rinks	66	35%
Stadiums (indoor/outdoor)	31	16%
Tennis Courts (indoor/outdoor)	132	70%
Sports Fields (indoor/outdoor)	149	79%
Ski hills	4	2%
Parks	176	93%
Trails	159	84%
Community Recreation Centres/ Multiplexes	118	62%
Seniors Centres	56	30%
Youth Centres	33	17%



10.1.2) Referring to the asset categories provided, for each physical condition option enter a percentage for each category listed under the Sports & Recreation network owned by your organization.

(Multiple fields)

ASSETS	CONDITION DATA REPORTED	VERY POOR	POOR	FAIR	GOOD	VERY GOOD
Indoor Rinks: Single pad	58	7	11	22	53	7
Indoor Rinks: 3-2 pads	20	1	12	19	40	29
Indoor Rinks: 4 pads (quad)	0	0	0	0	0	0
Indoor Rinks: +5 pads	1	0	100	0	0	0
Outdoor Rinks	19	11	17	29	21	23
Indoor Pool: 25 m	44	5	8	32	36	20
Indoor Pool: 50 m or longer	11	0	14	11	48	27
Indoor Pool: Leisure pools	35	0	3	36	35	26
Outdoor Pool	35	17	18	38	10	17
Wading Pool	19	0	11	47	37	5
Splash Pool	27	3	3	31	34	31
Skateparks (indoor/outdoor)	76	3	15	23	35	24
Indoor Curling Rinks	55	13	18	36	27	6
Stadiums (indoor/outdoor)	21	0	11	42	22	26
Tennis Courts (indoor/outdoor)	96	7	18	33	26	16
Sports Fields (indoor/outdoor)	106	3	6	31	42	21
Ski hills	3	0	0	33	67	0
Parks	121	2	5	28	50	15
Trails	115	2	5	31	45	18
Community Recreation Centres/ Multiplexes	88	1	10	35	40	15
Seniors Centres	42	0	14	44	36	9
Youth Centres	24	13	9	35	28	16

10.2) In 2014, what was the historical value for the Sports & Recreation network components owned by your organization? What was the estimated replacement value for the entire Sports & Recreation network components owned by your organization? What was the annual renewal budget for the entire Sports & Recreation network components owned by your organization? (Multiple fields)

ASSETS	REPORTED HISTORICAL COST	REPORTED REPLACEMENT COST	REPORTED RENEWAL VALUE
Indoor Rinks: Single pad	37	31	18
Indoor Rinks: 3-2 pads	12	8	7
Indoor Rinks: 4 pads (quad)	0	0	0
Indoor Rinks: +5 pads	1	1	1
Outdoor Rinks	5	3	2
Indoor Pool: 25 m	21	17	12
Indoor Pool: 50 m or longer	5	7	1
Indoor Pool: Leisure pools	8	6	3
Outdoor Pool	20	19	8
Wading Pool	6	6	1
Splash Pool	14	10	0
Skateparks (indoor/outdoor)	49	34	7
Indoor Curling Rinks	21	19	5
Stadiums (indoor/outdoor)	11	14	1
Tennis Courts (indoor/outdoor)	56	42	12
Sports Fields (indoor/outdoor)	63	44	16
Ski hills	5	2	0
Parks	90	61	41
Trails	73	45	21
Community Recreation Centres/ Multiplexes	59	48	34
Seniors Centres	20	16	6
Youth Centres	11	8	1
Cumulative Asset Submission	33	21	17

## Section 11: Buildings & Facilities

11.1) For the following asset components, describe the status of the asset: Asset is owned by the local government, or Asset is not owned by the local government.

(Single selection)

ASSETS	REPORTED OWNERSHIP	REPORTED OWNERSHIP %
Police Stations	63	33%
Fire Station	166	88%
Paramedic Stations	16	8%
Administrative Buildings, Service Centres, Work Yards	180	95%
Shelters (e.g. youth, women's, homeless)	4	2%
Libraries	78	41%
Childcare/ Daycare Centres	20	11%
Community Centres and Cultural Facilities	125	66%
Health Care Facilities	19	10%
Long-term Care Centres	3	2%
Airports	55	29%
Wharves	76	40%
Harbours	14	7%

11.1.2) Referring to the asset categories provided, for each physical condition option enter a percentage for each category listed under the Buildings & Facilities owned by your organization. (Multiple fields)

ASSETS	CONDITION DATA REPORTED	VERY POOR	POOR	FAIR	GOOD	VERY GOOD
Police Stations	50	5	12	15	50	18
Fire Station	128	8	8	30	37	17
Paramedic Stations	11	18	2	38	25	16
Administrative Buildings, Service Centres, Work Yards	133	7	14	35	30	15
Shelters (e.g. youth, women's, homeless)	3	0	67	0	0	33
Libraries	62	4	12	30	37	18
Childcare/ Daycare Centres	14	1	15	36	38	10
Community Centres and Cultural Facilities	93	4	17	38	32	9
Health Care Facilities	17	1	12	38	42	7
Long-term Care Centres	3	0	10	10	30	50
Airports	41	3	18	40	23	15
Wharves	57	6	7	31	44	12
Harbours	10	0	1	34	47	18

11.2) In 2014, what was the historical value for the Buildings & Facilities components owned by your organization? What was the estimated replacement value for the entire Buildings & Facilities owned by your organization? What was the annual renewal budget for the entire Buildings & Facilities owned by your organization? (Multiple fields)

ASSETS	REPORTED HISTORICAL COST	REPORTED REPLACEMENT COST	REPORTED RENEWAL VALUE
Police Stations	46	37	16
Fire Station	114	84	39
Paramedic Stations	6	5	0
Administrative Buildings, Service Centres, Work Yards	127	88	47
Shelters (e.g. youth, women's, homeless)	6	4	0
Libraries	52	39	16
Childcare/ Daycare Centres	6	6	3
Community Centres and Cultural Facilities	75	50	24
Health Care Facilities	11	7	4
Long-term Care Centres	5	4	4
Airports	25	14	8
Wharves	40	28	16
Harbours	4	2	2
Cumulative Asset Submission	18	11	8

## APPENDIX C: FEEDBACK RECEIVED FROM PARTICIPANTS

The feedback received on the survey was positive. Overall, some local governments are aware of the infrastructure gap experienced within their community. With saying that, local governments shared the challenge to secure funding sources and build capacity to support asset management activities within their organization. Generally, local governments are enthusiastic to move forward with improving asset management activities within their communities.

During the completion of the assessment form, the most frequently received inquiries were regarding how to use the form and clarifications regarding terminology. Most importantly, local governments shared that, moving forward communicating reporting requirements, especially ones of this magnitude, be shared with sufficient notice and as much continuity between reporting years as possible. Feedback which was not frequently reported but is noted because it provides insight into the process of completing the form and the benefit it provides to local governments has been split up into two categories, functionality of form and content of form.

### ***FUNCTIONALITY OF FORM***

Feedback received by local governments regarding the functionality of the form included that options for providing additional comments be included in future surveys. Local governments indicated that if a more sophisticated form could be built, cross page scrolling should be avoided and the inclusion of auto-summing fields and field specifications (numeric versus alphabet based) be accommodated. Finally, the consideration of combining both part one and two of the assessment form by asset class instead of by process and later asset class may result in more consistent reporting and better quality data over time.

### ***CONTENT FOUND WITHIN FORM***

The most common comment regarding missing content was the exclusion of solid waste as an asset class. Other assets that were requested included marine structures, heavy equipment, fleet, IT, campgrounds, golf courses, fire fighting equipment, water supply areas, transit, heritage sites, and piers and quays. While the assessment was not designed to be exhaustive, the importance of capturing data for all assets is noted.

Local governments appreciated the efforts made to align the assessment with that of the Canadian Infrastructure Report Card (CIRC). The assessment not only captured diverse service provisions, critical infrastructure, and core asset classes included in the CIRC, it also expanded into evaluating asset management as a process. Overall, the effort taken by local governments to complete this reporting requirement was not overlooked and the appreciation to complete a survey of this nature was truly appreciated.

Some local governments suggested that aligning asset class descriptions with tangible asset categories found within PSAB 1350 would result in more consistent reporting and better quality data over time. The inclusion of not applicable and leased asset selections would be helpful for local governments who do not host or own certain assets. Re-evaluating how condition-rating submission are collected is another topic that was mentioned by local governments that could use improvement.

## APPENDIX D: TOOLS AND RESOURCES

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### FUNDING

#### *Ministry of Municipal Affairs and Housing*

The [Infrastructure Planning Grant Program](#) offers grants to support local governments in projects related to the development of sustainable community infrastructure. Grants up to \$10,000 are available to help improve or develop long-term comprehensive plans and can be used for a range of activities related to assessing the technical, environmental and/or economic feasibility of municipal infrastructure projects.

#### *Federation of Canadian Municipalities*

A new program for 2017, the [Municipal Asset Management Program](#) is a five-year, \$50-million program that will support Canadian cities and communities to make informed decisions about infrastructure, such as the planning and construction of roads, recreational facilities, and water and wastewater systems.

#### *Local Government Program Services*

The [Asset Management Planning Program](#) was created in 2014 through a \$1.5 million grant from the Ministry of Municipal Affairs and Housing. The intent of the program is to assist local governments in delivering sustainable services by extending and deepening asset management practices within their organizations. Subscribe to [The Compass](#) to receive announcements on future program intakes.

#### *Gas Tax Program Services*

The Federal Gas Tax Fund in BC has two program streams available to local governments for asset management activities. The [Community Works Fund](#) (CWF) is delivered to all local governments in BC through a direct annual allocation where local governments make local choices about which eligible projects to fund and report annually on these projects and their outcomes to UBCM. The [Strategic Priorities Fund](#) is an application-based program available to local governments and other recipients outside of the Greater Vancouver Regional District to support infrastructure and capacity building projects that are either large in scale, regional in impact or innovative, and align with the program objectives of productivity and economic growth, a clean environment, and strong cities and communities.

Appendix D continued on next page

## Resources

[Asset Management BC](#) is BC's leader in guiding and supporting local governments on the path towards sustainable service delivery. Asset Management BC is comprised of local government representatives and key industry associations, offers [tools, resources](#) and training opportunities, and a [quarterly newsletter](#).

[Community Lifecycle Infrastructure Costing \(CLIC\) Tool](#)

[Asset Management for Sustainable Service Delivery: A BC Framework](#)

[BC Water Balance Model](#)

[Natural Capital Policy Review](#)

[Ecological Accounting Protocols](#)

## Additional Resources

[NAMS CANADA](#)

[Canadian Network of Asset Managers](#)

[Institute of Public Works Engineering Australasia](#)

[Master Municipal Construction Documents Association](#)

[Government Finance Officer Association of British Columbia](#)

[International Organization for Standardization – Asset Management 55001:2014](#)

[Auditor General for Local Government: Audit Topic 3 - Asset Management for Local Governments](#)



## Union of BC Municipalities

The Union of BC Municipalities (UBCM) is an association that represents the interests of every municipality and regional district in the province, and selected First Nations. Through its Executive, which is composed of mayors, councillors and regional district directors from communities throughout the province, it works with both provincial and federal governments in an effort to improve upon current legislation, regulations and funding arrangements.

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