

# Reporting on infrastructure

# 3

- Executive summary..... 34**
- Introduction ..... 35**
- Why keep the public informed? ..... 35**
- Criteria for informing the public..... 36**
  - Capacity of infrastructure by category ..... 37
    - Available infrastructure ..... 38
    - Condition ..... 38
    - Cost..... 39
    - Maximum capacity ..... 40
  - Achievement of planned results..... 40
    - Operating results compared to plans ..... 40
    - Financial results compared to plans ..... 40
    - Reasons for differences between results and plans ..... 41
  - Strategies for managing infrastructure risks ..... 41
    - Major risks..... 41
    - Risk reduction ..... 42
- What we plan to do..... 42**
- Selected references ..... 43**

## Executive summary

The Government of Saskatchewan has a significant investment in public infrastructure—over \$14 billion. The Government uses this public infrastructure (e.g., roads, dams, power plants) to provide a wide range of public services.

The public needs good information to understand and assess the Government's decisions about public infrastructure.

In this chapter, we describe the contents of public reports that would be useful to the public. Public reports about infrastructure should briefly describe:

- ◆ the capacity of public infrastructure;
- ◆ the extent to which the use of key infrastructure has achieved planned results; and
- ◆ the strategies used to manage the major risks of infrastructure.

We also describe our plans to audit the contents of some public reports. We plan to use the audit to highlight specific ways that government agencies can improve their public information about infrastructure

We encourage government agencies to use this chapter to help them keep the public informed. We encourage legislators to consider whether public reports provide reasonable information for the public to understand the Government's decisions about infrastructure.

## Introduction

Provincial governments use public infrastructure (e.g., airports, roads, bridges, dams, power plants, communications networks, buildings) to provide a wide range of public services. In Chapter 4 of our 2000 Fall Report – Volume 3, we discuss the key risks that governments face related to their investment in infrastructure. To reduce these risks, governments must adequately manage how they:

1. plan for infrastructure needs
2. set clear responsibility for infrastructure
3. maintain the capacity of infrastructure
4. maintain good information, and
5. keep the public informed.

In this chapter, we focus on the fifth of these areas, that is, keeping the public informed. This chapter describes adequate government reports to the public about infrastructure. We encourage government agencies to use this chapter to improve their public information about infrastructure.

This chapter also sets out our plans to audit the contents of some public reports on government infrastructure. Through this audit, we expect to identify practical ways that government agencies could report on infrastructure. We look forward to discussions with government officials and legislators on how government agencies can improve their public information about infrastructure.

## Why keep the public informed?

The Government uses infrastructure to deliver important public services (e.g., transportation, communications, energy). In Saskatchewan, the Government has over \$14 billion<sup>1</sup> of infrastructure. This includes most of the infrastructure available to the Government whether it was purchased, constructed, or leased.<sup>2</sup> The Government spends a significant amount annually to renew public infrastructure. In 2000-01, the Government spent over \$667 million<sup>3</sup> to buy or improve public infrastructure. In addition, it

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<sup>1</sup> Based on March 31, 2001 summary financial statements and other government reports.

<sup>2</sup> For more detail, see Chapter 4 of our 2000 Fall Report – Volume 3.

<sup>3</sup> This does not include General Revenue Fund capital expenditures of approximately \$295 million

spends a significant amount of public money annually to operate and maintain public infrastructure.

Infrastructure is expensive and is used for many years. The public needs good information to understand and assess the decisions that the Government makes about infrastructure. When the public does not have good information, it may result in less public confidence about the Government's ability to provide essential public services at the expected level of quantity, quality and cost. In addition, when the Government provides information to the public, it may improve how the Government manages public infrastructure.

In 1994 and 1995, the Standing Committee on Public Accounts recommended that the Government:

- ◆ report on its investment in infrastructure in the Government's summary financial statements, and
- ◆ describe its investment in infrastructure more fully in annual reports of its various organizations (e.g., departments).

The Government did not fully report on public investment in infrastructure in its summary financial statements for the year ended March 31, 2001 or in earlier years. Some government organizations do give the public information about infrastructure that they use to provide public services.

### **Criteria for informing the public**

To help determine what information governments should include in their reports on infrastructure, we reviewed international literature, reports of other auditors, and management best practices. We also considered the principles of performance reporting as set out in Chapter 1C of our 2001 Spring Report. In addition, we shared our criteria with government officials from Executive Council, the Department of Finance, and Crown Investments Corporation of Saskatchewan (CIC). CIC officials noted that the Government's policy to protect the competitive position of its Crown corporations may affect the publication of some information.

The public needs adequate information about the key infrastructure that the Government uses to provide public services. In particular,

Government organizations should publish brief descriptions of infrastructure capacity, the extent to which infrastructure helps the Government achieve its plans, and any related risks.

Exhibit 1 sets out the key contents of adequate public reports about the Government's infrastructure. The next section describes the criteria.

**Exhibit 1 – Criteria for public information on key infrastructure**

Adequate public information about the key infrastructure that a Government organization uses to provide public services should briefly describe:

**1. the capacity of each major category of infrastructure**

- key infrastructure available for use
- condition of the infrastructure
- cost of the infrastructure
- maximum service that the infrastructure could produce in its current condition

**2. the extent to which the use of key infrastructure achieved planned results**

- actual operating results compared to plans
- actual financial results compared to plans
- reasons for major differences between results and plans

**3. the strategies used to manage major risks of the key infrastructure**

- identify major risks that may affect the key infrastructure
- actions taken or planned to reduce major risks to acceptable levels

**Capacity of infrastructure by category**

We use “capacity” to mean the ability of infrastructure to help the Government provide public services. The public needs to know what type and level of services the Government has the capacity to provide with public infrastructure. Government agencies could publish summarized information about the available infrastructure, its condition, cost, and the maximum services that the infrastructure could produce.

Exhibit 2 shows one way to present information about the capacity of infrastructure. Some agencies may prefer a narrative format, while others may prefer multiple exhibits.

**Exhibit 2 - SAMPLE FORMAT for Annual Capacity Information on Infrastructure**

Available infrastructure		Condition *		Cost		Maximum capacity	
Category	Nature & location	Life span that remains	Program to maintain	Historical cost	Cost to replace	Type of service	Maximum volume
Road system	Primary	XX years average	Regular / deferred	\$000	\$000	Heavy traffic	Vehicles per hour by weight
	Secondary	XX years average	Regular / deferred	Not known	\$000	Local traffic	Vehicles per hour by weight
Pipeline System	XXX km by region	---	XX km inspected	\$000	\$000	Natural gas	Potential petajoules
Dams	Earthfill dams	XX years	Standard / minimal	\$000	\$000	Water control	Max. cubic decametres for irrigation

\* Most information about condition would be narrative, particularly details about the maintenance program and any serious deterioration.

***Available infrastructure***

A summary of the key infrastructure available for use would include information about the nature and location of each major category. This information would be reported in the context of its usefulness (e.g., ratios). For example, the Government could report the number of kilometres of primary and secondary highways it has, along with the kilometres of highway per capita in various areas of the province.

***Condition***

A summary of the present condition of each major category of infrastructure would state the average remaining life span. It would also explain how the Government maintains public infrastructure in good working condition. In addition, it would describe key trends toward deterioration or renewal that would impact the capacity of the

infrastructure over its original expected life span, safety, or the environment.

For example, information about the condition of a dam would include the number of years that it can continue to be used, that is, its remaining life span. Public information would also explain how the current condition of the dam would influence the volume, type, and quality of services that the dam could provide (e.g., water level control, power generation, recreation).

### **Cost**

Information about the cost of public infrastructure helps the public to appreciate its value. There are two main types of cost information that are useful to the public. These are historical cost and replacement cost.

Historical cost is the actual cost to acquire the infrastructure whether it was purchased, constructed, or leased. This information helps the public to evaluate the Government's previous decisions by comparing the benefits gained to the actual costs. Historical cost is the most common way to measure the cost of assets. The Government provides the historical cost of much of its infrastructure in its public financial statements.

Historical cost becomes less relevant as time passes. For example, decisions about whether to renovate an old building are influenced less by the building's historical cost than by the cost to build a new one. Information on replacement cost may be more relevant.

Replacement cost helps the public evaluate the Government's choices about future investments in infrastructure. The Government can estimate replacement cost in various ways. Thus, it is important that public information briefly state the method used to determine replacement costs.

Disclosing information about the cost of infrastructure can be challenging. In some situations, information about historical cost may not be practical. For example, complete records are not available of the original cost to construct older highways. In other situations, replacement cost may not be useful. For example, the Government may not plan to replace some infrastructure.

In summary, the Government should explain the cost of public infrastructure in some way. The Government should also state the method it used to determine the cost of public infrastructure, and whether it is an actual cost or an estimate.

### ***Maximum capacity***

The public needs information about the maximum service capacity of the Government's infrastructure in its present condition. This information would help the public evaluate whether the Government is using public infrastructure effectively. It also allows the public to better understand whether the Government should consider alternatives to its present arrangements for infrastructure.

For example, if the Government has excess capacity, it may have excess costs, or it may have an opportunity to generate additional revenues. Alternatively, if the Government has insufficient capacity to provide the expected level of services, the public may wish to influence the Government's priorities for allocating resources to infrastructure.

## **Achievement of planned results**

To decide whether the use of public infrastructure is reasonably effective, the public needs to know whether the infrastructure helped the Government to achieve its planned operating and financial results.

### ***Operating results compared to plans***

Operational information about infrastructure would compare actual service volumes and the quality of those services to targets. Key operational information would include public satisfaction levels, or the number and duration of service interruptions or downtimes. It would also include comparisons to specific industry standards, for example for public safety or reliability. In some cases, it would include comparisons of accident rates to targets and/or assessments of the impact of the infrastructure on the environment.

### ***Financial results compared to plans***

Financial information about infrastructure would compare actual financial results to key financial targets. Key financial information would compare



plans (i.e., budgets, expected return on investment) to actual spending or return on infrastructure. It would also state whether the cost to operate and maintain the infrastructure at the expected service level was higher or lower than expected. The public would receive information on whether the final cost of acquiring new infrastructure (e.g., new construction, purchases, leases) was higher or lower than expected.

***Reasons for differences between results and plans***

The public needs to understand why results differ from plans. Public information would include reasons for significant differences between planned and actual results for both operational and financial information.

Sometimes differences are due to matters that the Government cannot control. For example, technological changes may make infrastructure less useful or even obsolete. At other times, the differences may be the result of things that the Government can control. For example, decisions to provide less operator training or to defer maintenance could affect the capacity of the infrastructure, and changes in public policy could affect how the infrastructure is used. Public reporting provides the Government with an opportunity to explain why there are differences between results and plans.

**Strategies for managing infrastructure risks**

The public needs to know whether the Government is adequately managing the major risks associated with public infrastructure. The public expects the Government to manage infrastructure in a way that protects their health and safety, and the environment. In addition, the public expects the Government to undertake actions that will reduce major risks to an acceptable level.

***Major risks***

As previously mentioned, the Government faces several key risks related to public infrastructure. Many of these risks to infrastructure affect its service capacity. For example, infrastructure may break down due to misuse or become less productive due to poor maintenance. Other risks affect the environment (e.g., air pollution from power plants), or the health and safety of the public or employees.

These risks can, in turn, have a significant financial impact on the Government by reducing revenues or by increasing costs. For example, if the Government's infrastructure does not minimize pollution, the Government may be required to spend public money to repair the damage.

### ***Risk reduction***

To understand how the Government manages its major infrastructure risks, the public needs information on how the Government reduces the risks to acceptable levels. To provide this information, the Government would describe the level of risk that it considers acceptable.

For those risks that exceed the acceptable level, the Government would provide information on strategies to reduce those risks. For example, when infrastructure is obsolete or in poor condition, the Government may decide to increase maintenance, replace the infrastructure, or ensure the infrastructure complies with the standards of regulatory bodies (e.g., Canadian Radio-television and Telecommunications Commission).

The Government would also inform the public how it plans to reduce the risk of accidents. For example, the Government would report how often it carries out environmental and safety assessments. In addition, the Government could report how it uses hiring practices or operator training to reduce risks related to the Government's infrastructure.

With this information, the public would be better able to evaluate whether the Government is managing risks appropriately.

## **What we plan to do**

In the future, we plan to examine public information about the Government's infrastructure. Initially, we will audit the information of one department and one Crown corporation. As previously stated, we expect to use this work to identify areas where it is difficult to provide important information to the public. In addition, we look forward to discussions with government officials and legislators on how the Government can improve the information it makes public. We will report on the results of this examination in our 2002 Spring Report.

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