statement of recommended practice
SORP-3
assessment of tangible capital assets

This Statement is to be read in conjunction with the Introduction to Statements of Recommended Practice.

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PURPOSE AND SCOPE

1 This Statement of Recommended Practice (SORP) 1 provides guidance to governments or **government organizations** that choose to prepare and present a **report** on the **physical condition** 2 of their tangible capital assets, including leased tangible capital assets. 3 The guidance provides a basis for exercising professional judgment as to the nature and extent of the information to be reported.

2 The ability of governments 4 to report on all of their tangible capital assets will vary. Some governments may only have information, or choose to report on certain categories or types of their tangible capital assets.

3 Further, some governments may choose to provide this information in special purpose reports or in other public reports such as the budget. Information about the physical condition of tangible capital assets is information that could accompany the financial statements, although it is not a requirement.

4 For those governments that choose to prepare and present a report on the physical condition of their tangible capital assets, it is expected that full adoption will be achieved over time. Before then, partial adoption is encouraged.

NEED FOR REPORTING ON PHYSICAL CONDITION

5 Providing information on the physical condition of tangible capital assets may be more relevant to certain governments than to others. Some governments accomplish their public policy objectives primarily through direct program delivery. For these governments, tangible capital assets may form a major component of the cost of their overall operations, and reporting on their physical condition is important accountability information that helps users assess the government's stewardship of the resources entrusted to it.

6 The information required to promote a better understanding of a government's tangible capital assets extends beyond reporting information in the financial statements alone. Reporting on the physical condition of tangible capital assets assists users when assessing:

(a) the effects on service potential of past resource allocation and funding decisions;

(b) the trends in the physical condition;

(c) the adequacy of existing maintenance, replacement and renewal funding; and

(d) the extent of current and future revenues needed to maintain, renew and replace tangible capital assets.

7 **The report should provide an assessment of the physical condition of all of the government's tangible capital assets.**

8 Government business enterprises (GBEs) can manage significant stocks of tangible capital assets (for example, electricity distribution companies, water utilities) and can pose risks of loss to a government. Therefore, reporting on the physical condition of tangible capital assets of its GBEs is encouraged.

REFERENCE TO FINANCIAL STATEMENTS

9 **The report should be referenced to the related financial statements.**

10 Given that the information about a government's tangible capital assets' physical condition supplements and complements the financial statements, reference to the related financial statements would be made.

11 While information related to the physical condition of tangible capital assets may be available and produced in special purpose reports or in other public reports, it may not be easily compared with the information contained in the government's financial statements. Linking the information to the financial statements:

(a) allows users to assess the extent of the information reported in relation to the complete stock of tangible capital assets as at the financial statement date;

(b) assures users that a common definition of tangible capital assets has been used;

(c) identifies which entities within the government reporting entity are included; and

(d) relates the different valuation methods that may be used to the net carrying amount or cost of tangible capital assets.

12 If a government chooses to include the tangible capital assets of its GBEs in its report, a reference and reconciliation would be made to the notes or schedules that disclose the condensed supplementary financial information relative to GBEs. This would give users an understanding of the extent of tangible capital assets that have been assessed in relation to the total reported.

RESPONSIBILITY FOR PREPARATION

13 **The report should include a statement acknowledging the preparer's responsibility for its preparation.**

14 Responsibility for reporting on the physical condition of tangible capital assets rests with the preparer and this would be clearly communicated to the users. The report would include an acknowledgment of the preparer's responsibility for its content.

QUALITATIVE CHARACTERISTICS

15 **The information provided in the report should embody the basic qualitative characteristics of relevance, reliability, comparability and understandability.**

16 The qualitative characteristics are essential to the communication and utility of information contained in a government's report. While these characteristics are usually discussed in terms of financial statements, they are equally applicable when reporting on the physical condition of tangible capital assets. Further guidance related to their application in other reporting formats is provided in FINANCIAL STATEMENT DISCUSSION & ANALYSIS, SORP-1, and PUBLIC PERFORMANCE REPORTING, SORP-2.

PRESENTATION

17 **The report should provide the following information for each category of tangible capital assets:**

(a) the net carrying amount or cost;

(b) the average physical condition rating;

(c) the average age and useful life; and

(d) its nature and extent.

18 Averages would generally be calculated using the quantity (unit of measure) as the weighting factor. Using the net carrying amount or cost as the weighting factor may be misleading. For example, the average physical condition rating for roads could be biased toward the condition of newer roads that have a higher net carrying amount. The report would disclose the basis used for calculating the averages.

Net carrying amount or cost

19 To assist users, a government would reconcile the report to the financial statements for each major category of tangible capital assets. The reconciliation can be based on either the net carrying amount or cost of tangible capital assets reported in the financial statements (see Table I in Appendix A).

20 The net carrying amount or cost of tangible capital assets provides users with an understanding of the extent of tangible capital assets that have been assessed in relation to the total reported in the financial statements.

Average physical condition rating

21 The assessment of an asset's physical condition would be completed by those having knowledge of the nature and use of the asset. Evaluators could be internal asset managers with the requisite knowledge of the asset or external technical experts.

22 The subjectivity of a **physical condition assessment** will be reduced and comparability improved when it is based on a detailed physical examination using:

(a) a standardized, clearly defined methodology;

(b) predefined defect conditions; and

(c) appropriate measurement scales.

23 Governments are encouraged to use standard industry practices to perform a physical condition assessment when such standards exist or they could use internally developed methodologies. The sophistication of the tools used would be a function of the size and complexity of the government and the nature of the tangible capital assets being assessed. Asset management systems may contain information about an asset's physical condition, but the absence of an asset management system does not necessarily preclude reporting on the physical condition.

24 Asset condition assessment methodologies and frequency of assessments can be different for major categories of tangible capital assets. For example, they could be different for bridges when compared to buildings.

25 Once methodologies and measurement scales have been determined, it is desirable that methods and scales be applied consistently from period to period. Consistency in application is important when comparing assessments of tangible capital assets between periods or at different points in time. Comparability helps prevent misconceptions that might result from the application of different methodologies and measurement scales in different periods.

26 It may not be possible to complete a physical examination of all tangible capital assets. In such cases, it may be appropriate to use a **probabilistic evaluation** of the physical condition of the asset. For example, it may not be possible to physically examine water pipes. However, the physical condition could be estimated based on a combination of age, construction materials and methods, breaks per kilometre, geological and soil conditions, etc. Whatever assessment tool is used, the government would employ a standardized, clearly defined methodology with pre-established logical relationships between physical attributes of the asset and the resulting condition assessment.

27 Physical condition would be reported using a measurement scale such as a **condition index**. When different measurement scales are used for various types of assets, it would be useful if they were converted to a common measurement scale that can be used for all categories of assets when reporting.

28 A common measurement scale across all categories provides an indication of the average physical condition of tangible capital assets on a comparable basis. This allows users to understand the implications of the physical condition of the individual category relative to the condition of all other categories (see Table II in Appendix A).

Average age and useful life

29 Governments would provide the average age and either the average remaining useful life or estimated average useful life of tangible capital assets in each major category. Information about the average age and the useful life allows users to assess the timing of rehabilitation and replacement expenditures.

Nature and extent

30 The report would contain a description and the quantity of the major components of tangible capital assets in each major category. Providing this information gives users an understanding of the nature and extent of the stock of tangible capital assets. For example, the description for the roads category might indicate that it includes arterial, collector and local roads, curbs and gutters, sidewalks, traffic control and street lights, bridges and other structures.

31 The quantity could be based on a unit of measurement that represents the common characteristics of the tangible capital assets being assessed. For example, it could be lane kilometres for roads, kilometres of pipes for sewer or water systems, or the number of or square footage for facilities. This summary level unit of measure is not intended to describe the components of the system. Rather, it provides users with a reference that is useful in assessing the magnitude of the category of tangible capital assets (see Table III in Appendix A).

32 It may be useful to report the quantity based on units of measurement for various components within a category of tangible capital assets. Using a water system as an example, the report could provide the number of kilometres of pipes in the distribution system and the number of water treatment plants.

Tangible capital assets assessed

33 **The report should provide the rationale for the tangible capital assets or categories selected for assessment.**

34 A government may choose not to provide information for all categories of, or all tangible capital assets within a category. Governments would establish criteria to select which assets and which programs and services to include in their assessments. The criteria could include consideration of factors such as:

(a) health and safety;

(b) economic growth; and

(c) the environment.

35 Tangible capital assets selected for assessment could be based on the nature of the risk to the government if the asset is not maintained or fails. It may not be necessary to report on tangible capital assets that have a low dollar value in terms of ongoing investment and low risk if they fail. For example, a government may wish to provide an assessment of its bridges but not its rural roads.

36 Table III in Appendix A illustrates the presentation of a comprehensive report for all categories of tangible capital assets of a government and its government organizations.

37 Where there are significant tangible capital assets that have not been included in the report, it would provide an explanation of why they have not been assessed. For example, the report could explain that the major assets have not been included because there is insufficient information available for the category of tangible capital assets.

Breakdown by classification

38 **For each category of tangible capital assets, the report should also provide a further breakdown of the average physical condition by each classification in the condition index showing:**

(a) the quantity;

(b) the percentage of total; and

(c) the average age and useful life.

39 The physical condition assessment, based on an average condition index, may not give a useful picture of the physical condition of all assets in the category. In such cases, it would be important to provide a further breakdown of the overall average condition index by each classification (see Table IV in Appendix A).

40 Governments would explain the implications of the distribution of assets. For example, a government could report that 28 percent of its road system is rated as in a poor or a failure condition. However, the majority of the roads in this rating are laneways or residential streets that are of lower priority than major highways and expressways. Alternatively, the government may have made a decision not to replace the assets in the lowest ratings because the roads are no longer needed due to declining population in a specific geographical area.

NARRATIVE DISCLOSURE

41 **The report should discuss:**

(a) trends in changes in the physical condition;

(b) any effects of known plans on the changing physical condition;

(c) the basis of measurement, measurement scale and effects of changes; and

(d) definitions underlying information reported.

Trend information

42 Including trend information indicates whether the physical condition of the government's tangible capital assets is improving, stable or deteriorating. It allows users to assess the effects of past resource allocation decisions on physical condition, the adequacy of existing maintenance, renewal and replacement funding and future revenues needed to sustain the service potential of tangible capital assets. Physical condition assessments would be completed on a basis such that changes in overall asset conditions can be compared over time.

43 Users need to have an understanding of the key factors that influence the physical condition of assets over time. So when discussing trend information it is important to provide the effects of such things as:

(a) the level of investment in maintenance and renewal;

(b) the durability of the asset as a result of its design and construction;

(c) the past and current use and the passage of time; and

(d) the weather, geological conditions or other factors such as technical obsolescence, accidents, catastrophes or disasters, etc.

This information helps users interpret the meaning and significance of the asset physical condition assessment and provides the context to understand the effects the physical condition will have on the government.

44 When providing trend information, it is necessary to provide the data in a consistent manner. Governments would explain the effect of changes made to the methodologies, measurement and reporting of physical condition assessments.

Effects of known plans

45 In some cases, a government may have approved, or known of, plans to invest in tangible capital assets. In these cases, the report would provide information about the effects such plans will have on the physical condition assessments of existing tangible capital assets. For example, a government may have approved an annual program designed to improve the physical condition of its roads. There may be an approved project to expand services to accommodate growth that will address deferred maintenance, renewal and replacement on a portion of its existing water system.

46 The report would provide information on major assets that may be at or approaching the end of their useful life and that will not be replaced. For example, it may be a government's policy to shut down all coal-powered generating plants. In such cases, this information would be provided.

Basis of measurement, measurement scale and effects of changes

47 The narrative disclosure in the report would identify the basis of measurement and the measurement scale used to assess and report on the physical condition of tangible capital assets. The report would provide information about changes in the basis of measurement and the measurement scale used and the effects of the changes to maintain comparability. The report would include the reasons for the change and,

when practical, prior period assessments would be restated for comparability or differences between current and previously reported assessments explained.

48 The narrative disclosure in the report would provide:

(a) a description of the methodologies used in the assessment of the physical condition of tangible capital assets;

(b) a description of the key assumptions used in preparing the assessment of the physical condition and whether the assumptions are susceptible to change;

(c) an explanation of the changes made to past assumptions used in previous assessments of the physical condition;

(d) information about the effect of a change in the underlying assumptions used to prepare the assessment of physical condition;

(e) the sensitivity of the assessment of physical condition to changes in the assumptions used and the reason for the sensitivity;

(f) a description of the **condition management system** used by the government; and

(g) a description of the condition index used and its source.

49 The narrative disclosure in the report would provide the meaning of the ratings in the measurement scale adopted (see Table V in Appendix A).

Definitions

50 The report would also disclose any key definitions used that may not be generally accepted terms with common usage and understanding. For example, if the report refers to infrastructure, it would disclose the nature of tangible capital assets included under this term.

OTHER INFORMATION

51 A government may choose to provide additional information such as:

(a) the current cost of replacing tangible capital assets; and

(b) the desired or targeted asset condition levels.

Current cost of replacing tangible capital assets

52 Governments may choose to provide information on the current cost of replacing tangible capital assets by category. Current cost represents the amount in today's dollars necessary to acquire, develop or construct assets similar to those owned by the government. Information on tangible capital asset current cost gives users an indication of the future revenue requirements to replace them.

53 One of the methods of indicating current cost is to provide the information directly in the report in total for each major category. Alternatively, a government could provide the average current cost per unit of measurement. Average current cost per unit, when coupled with a measure of the quantity and useful life, can help users understand the future revenue requirements to replace assets.

Providing desired or targeted asset condition levels

54 The government may establish a desired or targeted condition level for each asset category against which actual condition assessment measures can be compared. This gives users access to information that allows them to determine whether assets are being preserved at the targeted condition level.

55 Determining what constitutes an acceptable asset condition may vary among governments as well as for different types of tangible capital assets held by an individual government. It may not be possible or desirable to maintain assets in perfect condition. Understanding the government's targets for the physical condition of tangible capital assets by major category may be useful in assessing future revenue requirements.

56 Governments may provide targeted condition levels for each asset category. For example, the asset category has been rated as C while the desired rating is B. Similarly, even though the overall rating for the category is B, 10 percent of the assets in the category are in the D and F rating. It may be a goal of the government to have only 5 percent in these ratings.

FREQUENCY OF REPORTING

57 The report would provide information on the reported categories of tangible capital assets over an appropriate period of time, giving consideration to their nature and use.

58 It is unlikely that detailed assessments of physical condition will be performed at the same time for all tangible capital assets. A government may choose to complete periodic assessments on major categories of tangible capital assets on a cyclical or rotational basis. It may also decide to do physical condition assessments on the critical assets on a more frequent basis than on other assets.

59 The physical condition of tangible capital assets changes over time due to various factors and, therefore, assessments presented in the report could be updated to provide information about the effects of these factors between physical condition assessments.

60 In the periods between assessments of physical condition, an extrapolation of the previous assessments could be used to provide an estimated current assessment, taking into account factors like expenditures since the previously completed assessment, maintenance records, utilization and age.

61 A government would provide information about the rationale for and frequency of the assessments of physical condition.

62 When assessments of physical condition have been updated, a discussion of the basis upon which previous assessments have been updated and the changes in the previous assessments resulting from new information would be included. For example, the discussion may provide information on the impact that expenditures have had on the overall physical condition since the last assessments were completed.

GLOSSARY

This Glossary is an integral part of this Statement.

Condition index is a tool for representing the overall physical condition of a complex asset. Complex assets are made up of multiple components and subsystems and each has multiple modes of degradation. A condition index combines all factors using a multiple-criteria assessment approach into a single indicator of the condition of the asset. The critical objectives of a condition index are:

- Indicative — the index would provide a meaningful indication of the suitability of the asset for continued service or be representative of the overall asset physical health.
- Objective — the index would, whenever possible, rely on objectively verifiable measures of asset condition as recognized in the industry as opposed to subjective observations and condition risk factors. Probability of failure is then based on engineering judgment and industry experience.
- Simple — the index would be understandable and readily interpreted.

Condition management system is a standard industry practice used to perform a physical condition assessment such as a pavement management system or an internally developed methodology. The systems are generally characterized by standardized, clearly defined methodologies, predefined defect conditions and measurement scales.

Government organization is any organization that is controlled by the government. GOVERNMENT REPORTING ENTITY, Section PS 1300, provides guidance on the interpretation and application of control. Government organizations include government business enterprises, government not-for-profit organizations and other government organizations. (Refer to the Introduction to Public Sector Accounting Standards for definitions. GOVERNMENT REPORTING ENTITY, paragraph PS 1300.28, defines government business enterprises.)

Physical condition is one of a number of attributes that could be used to assess the condition of tangible capital assets. Physical condition of the asset is its ability to meet its intended purpose over its expected useful life.

Physical condition assessment is the technical assessment of the physical condition of a tangible capital asset using a systematic method designed to produce consistent, relevant and useful information. The objective of a physical condition assessment is to provide sufficient information on asset condition to allow informed strategic asset planning and management decisions to be made.

Probabilistic evaluation takes into consideration various parameters, such as maintenance practices, age, environment and operating conditions, to predict the physical condition of a tangible capital asset based on probabilistic models.

Report refers to the report that a government or government organization chooses to publish relating to the assessment of the physical condition of its tangible capital assets.

APPENDIX A

ILLUSTRATIVE EXAMPLES

The following examples have been prepared to illustrate how these recommended practices might be applied or incorporated in a report.

The examples are illustrative only. They are not intended to indicate preferred application or report formats or to prescribe standardized disclosure. Governments are encouraged to vary application, report format and disclosures to meet their particular circumstances.

TABLE I

This Table illustrates the reconciliation of a report for a major category of tangible capital assets presented in financial statements based on net carrying amount.

	20X8	
		Net carrying amount ($ millions)
Asset category — Roads	Quantity (lane kms)	
Assessment completed (expressways, highways, arterials and collectors, and residential streets)	1,829	6,568
Assessment not completed (laneways, alleys) (a)	155	542
Total per summary financial statements	1,984	7,110

(a) See Table IV.

TABLE II

This Table illustrates cross-referencing of measurement scales for reporting.

Asset category	Measurement scale used	Common measurement scale
Roads	50 out of 100	C
Sewers	Fair	D

TABLE III

This Table illustrates a comprehensive report. In this illustration, the government has chosen to report on all categories of tangible capital assets and include the tangible capital assets of its government business enterprises. It has adopted a common condition index A, B, C, D, and F where A is an excellent or a new condition and F is a failure condition.

Government reporting entity

Category	Net carrying amount ($ millions)	Average condition index	Average age (years)	Average remaining useful life (years)	Quantity	
	20X8	20X8			20X8	Unit
Roads	6,568	C	25	20	1,829	kms
Sewers	9,345	B	35	40	3,795	kms
Water	7,465	C	55	20	3,845	kms
Transit	1,118	C	5	10	1,225	vehicles
Buildings	981	C	30	15	150	facilities
Recreation	798	B	20	10	320	facilities
Equipment	550	C	5	10	1,421	units
Waste	185	B	10	30	200	units
Unreported (a)	1,790	n/a	n/a	n/a		
Total per financial statements	28,800					

Government business enterprises

Category	Net carrying amount ($ millions)	Average condition index	Average age (years)	Average remaining useful life (years)	Quantity	
	20X8	20X8			20X8	Unit
Electrical transmission and distribution equipment	9,236	C	20	30	15,283	circuit kms
Unreported (a)	1,000	n/a	n/a	n/a		
Total per notes to the financial statements	10,236					

(a) Represents tangible capital assets on which an assessment has not been completed as at the financial statement date.

TABLE IV

This Table illustrates a further breakdown of the overall average condition index by each classification in the condition index based on the information in Table III.

Asset Category — Roads

Condition index	Quantity (lane kms)		Average age (years)	Average remaining useful life (years)
		Percentage		
	20X8	20X8		

A	274	14%	5 yrs	40 yrs
B	366	18%	12 yrs	33 yrs
C	640	32%	23 yrs	22 yrs
D	458	23%	32 yrs	13 yrs
F	91	5%	45 yrs	0 yrs
Total rated	1,829	92%	20 yrs	25 yrs
Unreported (a)	155	8 %		
Total	1,984	100 %		

(a) Represents tangible capital assets on which an assessment has not been completed as at the financial statement date.

TABLE V

This Table illustrates the meaning of ratings in a measurement scale used for reporting.

Meaning of Measurement Scale Ratings

Condition Index	Explanation
A	Indicates that the tangible capital asset is in excellent or new condition. The asset is performing its function as originally intended. Maintenance costs are well within acceptable standards and norms. Typically, the asset is new or recently rehabilitated.
B	Indicates that the tangible capital asset is in good condition but approaching a stage where deterioration starts to occur. Minor defects or deterioration is visible. The asset is performing its function as originally intended. Maintenance costs are within acceptable standards and norms but are increasing. Typically, the asset has been used for some time but is in the middle stage of its expected life.
C	Indicates that the tangible capital asset is in fair condition with deterioration accelerating. The asset is showing signs of deterioration and is performing at a lower level than originally intended. Some components of the asset are becoming physically deficient. Maintenance costs exceed acceptable standards. Typically, the asset has been used for a long time and is in the latter stage of its expected life.
D	Indicates that the tangible capital asset is in poor condition and has reached a stage where rapid deterioration is occurring. Function of the asset is inadequate. The asset is showing significant signs of deterioration and is performing to a much lower level than originally intended. Maintenance costs significantly exceed acceptable standards and norms. Typically, the asset is approaching the end of its expected life.
F	Indicates that the tangible capital asset is physically unsound and not performing as originally intended. The asset has a higher probability of failure or failure is imminent. Maintenance costs are unacceptable and rehabilitation is not cost effective. Replacement or major refurbishment is required.

Footnotes

1. Throughout this SORP, terms that appear in **bold type** are defined in the Glossary.
2. This SORP does not address the measurement and disclosure of information about "infrastructure deficit".
3 This SORP does not apply to computer software.
4. The term "government" is used throughout this SORP to refer to all governments and government organizations.