



Policy and Guidelines Paper Valuation of Physical Non-Current Assets at Fair Value



Preface

This Policy provides requirements and guidance for valuing physical non-current assets at fair value for general purpose financial reporting, taking into account the unique circumstances of the public sector. The aim is to provide relevant and reliable information for decision making and ensure a consistent approach to asset valuation across the NSW Public Sector.

Many assets in the public sector have few or no alternative uses and many infrastructure assets are specialised. This Policy therefore clarifies the meaning of 'fair value' for assets with few or no alternative uses.

This Policy is applicable to all entities that are reporting GSF agencies within the meaning of section 7.3 of the Government Sector Finance Act 2018, and to the accountable authorities for those reporting GSF agencies.

For the avoidance of doubt, this Policy does not apply to universities and their controlled entities, or to their accountable authorities.

It applies starting from 1 July 2021. This Policy is consistent with the Australian Accounting Standards, including AASB 13 Fair Value Measurement. It supersedes the previous NSW Treasury Policy & Guidelines Paper of the same name (TPP 14-01).

Stewart Walters For Secretary NSW Treasury

1 July 2021

Note

General inquiries concerning this document should be initially directed to: Accounting Policy, NSW Treasury; accpol@treasury.nsw.gov.au.

This publication can be accessed from the Treasury's website www.treasury.nsw.gov.au/.

Contents

Preface	i
Executive Summary	.1
Changes from previous version	. 1
1. Introduction	. 2
1.1 Purpose of Policy	.2
1.2 Fair value adopted	.2
1.3 Application	. 3
1.4 Interaction with the International Valuation Standards Framework	. 3
2. Overview of Valuation Policy	. 3
2.1 General valuation principles	. 3
2.2 Key elements of fair value	.4
2.3 AASB 13 Fair value measurement – An overview of fair value requirements for non-financia assets.	.1 .6
3. The asset's characteristics	.7
3.1 Unit of account	.7
3.1.1 What constitutes an asset?	. 7
3.1.2 Parts of assets	. 8
3.2 Condition and location	. 8
3.3 Restrictions	.9
4. The transaction and price.	10
4.1 Highest and best use	10
4.1.1 Impact of restrictions on highest and best use	11
4.2 Valuation premise	13
4.3 Principal market	14
4.4 Market participants' perspective	14
5. Valuation techniques	15
5.1 Market approach	16
5.2 Cost approach	16
5.2.1 Modern equivalent asset	17
5.2.2 Replacement cost versus Reproduction cost	18
5.2.3 Cost elements	18
5.2.4 Obsolescence	18
5.3 Income approach	19
6. Inputs to valuation techniques	20
6.1 Level 1 inputs	21

6.2	Level 2 inputs	21
6.3	Level 3 inputs	
7. Applic	ation of AASB 13 to particular types of physical non-current assets	
7.1	Valuation of land	
	7.1.1 Highest and best use and the asset's characteristics	23
	7.1.2 Valuation technique	23
	7.1.3 Fair value hierarchy	24
7.2	Valuation of buildings	
	7.2.1 Highest and best use and the asset's characteristics	24
	7.2.2 Valuation technique	25
	7.2.3 Fair value hierarchy	25
7.3	Valuation of specialised plant and infrastructure	
	7.3.1 Highest and best use and the asset's characteristics	25
	7.3.2 Valuation technique	25
	7.3.3 Fair value hierarchy	26
7.4	Heritage / cultural assets	
	7.4.1 Highest and best use and the asset's characteristics	26
	7.4.2 Valuation technique	26
	7.4.3 Fair value hierarchy	27
	7.4.4 Reliable measurement	28
7.5	Other non-specialised assets	
7.6	Service concession assets	
7.7	Impairment testing	
7.8	Assets under construction	
8. Condu	uct of revaluations	
8.1	Frequency and types of revaluations	
	8.1.1 Core requirements on revaluation – AASB 116	32
	8.1.2 Comprehensive Revaluation	33
	8.1.3 Interim Revaluations	33
8.2	Fair value indices/indicators	
8.3	Qualifications of valuers	
8.4	Recognition date of revaluations	
8.5	Management of an asset revaluation	
9. Disclo	sures	
9.1	AASB 13 disclosures	

9.2 AASB 116 restatement of gross amount and accumulated depreciation	. 39
9.3 Additional NSW disclosure requirements	. 39
Appendix A - Use of sampling in asset valuation	. 41
Further information and contacts	. 43

Executive Summary

Physical non-current assets comprise a significant proportion of NSW public sector assets. These assets are used to meet Government objectives and desired outcomes through the delivery of goods and services. The purpose of this Policy & Guidelines Paper is to provide requirements and practical guidance for valuing physical non-current assets for general purpose financial reporting. This will provide relevant and reliable information for decision-making and ensure a consistent approach to asset valuation across the NSW Public Sector.

After initial recognition, Australian Accounting Standards AASB 116 *Property, Plant and Equipment* (AASB 116) and AASB 140 *Investment Property (AASB 140)* require assets to be valued at fair value or cost. AASB 13 *Fair Value Measurement* (AASB 13) sets out in a single Accounting Standard how to measure fair value.

This Policy mandates physical non-current assets be measured at fair value under AASB 116 and AASB 140, consistent with Australian Bureau of Statistics, Government Finance Statistics (GFS) and AASB 1049 *Whole of Government and General Government Sector Financial Reporting* (AASB 1049).

To assist NSW public sector entities, this Policy provides guidance not provided in AASB 13, AASB 116, AASB 140, AASB 136 *Impairment of Assets* (AASB 136) and AASB 1059 *Service Concession Arrangements: Grantor* (AASB 1059) on how to measure the fair value of assets taking into account the unique circumstances in the public sector. Many assets in the public sector have few or no alternative uses, and many assets, including infrastructure assets, are highly specialised.

Changes from previous version

This version of the Policy has been updated for the following topics:

- AASB 1059 is effective from financial years beginning on or after 1 January 2020 and includes additional requirements on applying the AASB 13 fair value principles to service concession assets. On initial recognition or reclassification, or where the grantor adopts the revaluation model for subsequent measurement, AASB 1059 mandates the measurement of a service concession asset at current replacement cost in accordance with the cost approach to measuring fair value in AASB 13.
- Changes in International Valuation Standards.
- Changes in other accounting standards, such as AASB 136.
- Specific guidance in respect of assets under construction.
- More detailed guidance on the conduct of revaluations, particularly under uncertain market conditions.

1. Introduction

1.1 Purpose of Policy

The purpose of this Policy is to provide requirements and practical guidance for valuing physical noncurrent assets for general purpose financial reporting.

Physical non-current assets comprise a significant proportion of NSW public sector assets. These assets are used to meet Government objectives and desired outcomes through the delivery of goods and services. The objective of valuing these assets is to report on the value of the future economic benefits embodied in the asset. This will provide relevant and reliable information for decision-making about resource allocation, performance measurement and accountability and ensure a consistent approach to asset valuation across the NSW Public Sector.

This Policy provides a high-level summary of the requirements of AASB 13 *Fair Value Measurement*. It then provides additional guidance to help NSW public sector entities apply AASB 13 in a public sector context. However, this Policy is not a substitute for AASB 13 and must be read in conjunction with AASB 13. The Policy also sets out requirements for how to conduct revaluations.

Where relevant, International Accounting Standards Board (IASB) support materials, including illustrative examples, and International Valuation Standards Council (IVSC) pronouncements have been used or referenced to further explain how to apply AASB 13 in the NSW public sector context¹.

1.2 Fair value adopted

All physical non-current assets, including property, plant and equipment (including service concession assets) and investment property must be measured at fair value, subsequent to initial recognition.

After initial recognition, the following Australian Accounting Standards allow or require assets to be measured at fair value:

- AASB 116 requires each class of property, plant and equipment to be measured using either the cost model or the revaluation model (i.e. on a fair value basis) (AASB 116, para 29).
- AASB 140 requires all investment property to be measured using either the cost model or the fair value model (AASB 140, para 30).
- AASB 1059 requires that service concession assets are measured after initial recognition in accordance with AASB 116, i.e. using either the cost model or the revaluation model (AASB 1059, para 9).

The purpose of financial reporting is to provide relevant and reliable information for decision-making purposes. Based on this purpose, NSW Treasury's view is that fair value is the most relevant measurement attribute for physical non-current assets, and that sufficiently reliable estimates of the fair value of assets can be determined.

The revaluation model under AASB 116 and fair value model under AASB 140 is consistent with the requirements of AASB 1049 and Australian Bureau of Statistics Government Finance Statistics (GFS) requirements.

AASB 13 Fair Value Measurement sets out in a single Accounting Standard how to measure fair value. This Policy provides guidance on how to apply AASB 13 in the NSW public sector context.

¹ IFRS 13 Illustrative examples are available on the <u>IASB support materials</u> page on the AASB website.

1.3 Application

This Policy applies to all entities that are reporting GSF agencies within the meaning of section 7.3 of the Government Sector Finance Act 2018, and to the accountable authorities for those reporting GSF agencies.

For the avoidance of doubt, this Policy does not apply to universities and their controlled entities, or to their accountable authorities.

This policy applies starting 1 July 2021 and is consistent with the relevant Australian Accounting Standards.

This Policy applies to all physical non-current assets which are measured at fair value under AASB 116, AASB 140, AASB 1059 *and* where AASB 13 is applicable. Accordingly, this Policy does not apply to the following assets:

- Assets held for sale (see AASB 5 Non-current Assets Held for Sale and Discontinued Operations)
- Inventories (see AASB 102 Inventories)
- Assets arising from contracts with customers (see AASB 15 Revenue from Contracts with Customers)
- Biological assets (see AASB 141 Agriculture)
- Mineral rights and reserves and assets subject to AASB 6 Exploration for and Evaluation of Mineral Resources
- Leasing transactions within the scope of AASB 16 Leases (with the exception of physical noncurrent assets held by lessors in an operating lease arrangement).

A reporting GSF agency must comply with this Policy unless the accountable authority for this agency determines that the relevant assets are unlikely to be material to the financial statements of the Agency for the relevant year. The agency must consult with its auditors regarding the materiality level for this assessment.

1.4 Interaction with the International Valuation Standards Framework

This Policy refers to pronouncements issued by the IVSC. The International Valuation Standards (IVS) and Guidance Notes of the IVSC are adopted in their entirety in the Australia and NZ Valuation and Property Standards Manual, issued by the Australian Property Institute and the Property Institute of New Zealand.

The IVSC pronouncements apply for many different types of valuations, including but not limited to financial reporting. In this regard, it is important to note that although the AASB 13 definition of fair value differs from that appearing in the IVS Framework, fair value under AASB 13 is generally consistent with the concept of market value in the IVS Framework. Also, for valuations for financial reporting, where there are any conflicts between the IFRS (on which the AASB requirements are based) and the IVS material, the IFRS (or AASB) requirements prevail. International Valuation Standard IVS 104 *Bases of Value* (IVS 104) (para 20.2) also acknowledges this.

2. Overview of Valuation Policy

2.1 General valuation principles

AASB 13 applies when another Accounting Standard requires or permits fair value measurement or disclosures (such as AASB 116, AASB 140 and AASB 1059), except in limited circumstances.

AASB 13 outlines *how* to measure fair value *not* when to use fair value and what to measure at fair value. It provides a single source of guidance on fair value and includes a definition of fair value explicitly based on an exit price notion.

Fair value is defined as:

"the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date" (AASB 13, para 9).

The objective of fair value measurement is to estimate the price at which an orderly transaction to sell the asset would take place between market participants at the measurement date under current market conditions. It is an exit price (AASB 13, para 9).

The valuation of property, plant and equipment (excluding investment property and assets of not-forprofit entities that are held for continuing use of their service capacity rather than for their ability to generate net cash inflows and accounted at fair value under the revaluation model) is subject to a separate "impairment" test as part of AASB 136 *Impairment of Assets*.

2.2 Key elements of fair value

The key elements of fair value as discussed in AASB 13 include the following:

- <u>Characteristics of the asset (para 11-14)</u> Fair value measurement is for a particular asset and so an entity should take into account the characteristics of the asset that market participants would take into account when pricing the asset, including the condition and location of the asset and restrictions on the sale or use of the asset.
- <u>The transaction and price (para 15 and 24-26)</u> Fair value measurement assumes that the asset is exchanged in an orderly transaction between market participants to sell the asset at the measurement date under current market conditions.
 - <u>Highest and best use (para 27-30)</u> Fair value measurement takes into account a market participant's ability to generate economic benefits by selling the asset or using it in its highest and best use, which is a use that is physically possible, legally permissible and financially feasible.
 - <u>Valuation premise (para 31-33)</u> The highest and best use establishes the valuation premise used to measure fair value; i.e. that maximises the value to market participants through its use in combination with other assets / liabilities or on a standalone basis.
 - <u>Principal market (para 16-21)</u> Fair value measurement assumes that the transaction to sell the asset takes place either in the principal market for the asset or in the absence of a principal market, in the most advantageous market for the asset.
 - <u>Market participants' perspective (para 22-23)</u> An entity must measure the fair value of an asset using the assumptions that market participants would use when pricing the asset, assuming that market participants act in their economic best interest.
- <u>Valuation techniques (para 61-66)</u> In measuring fair value, an entity must use valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs. Valuation techniques include the market approach, income approach and cost approach. Note however, that AASB 1059 prescribes the cost approach for service concession assets.
- <u>Inputs to valuation technique (paras 67-69) (fair value hierarchy) (para 72-90)</u> The fair value hierarchy categorises inputs to the valuation techniques into three levels i.e. Level 1 based on quoted prices, Level 2 based on other observable inputs and Level 3 based on unobservable inputs. The valuation technique selected must maximise the use of observable inputs and minimise the use of unobservable inputs.

The following diagram provides an overview of how AASB 13 and this Policy apply to fair value measurement of physical non-current assets.

2.3 AASB 13 Fair value measurement – An overview of fair value requirements for non-financial assets



3. The asset's characteristics

Agencies shall measure fair value for a particular asset, taking into account the characteristics of the asset if market participants would take into account those characteristics when pricing the asset, including:

- condition and location of the asset and
- restrictions on sale or use of the asset (AASB 13, para 11).

3.1 Unit of account

3.1.1 What constitutes an asset?

The unit of account is the level of disaggregation at which an asset is measured and accounted for e.g. the level an asset is recognised and disclosed at. The unit of account is also relevant to *for-profit entities*, because for them revaluation increments and decrements must be offset on an individual asset basis (AASB 116, para 39).

The unit of account for an asset is determined at the time the asset is recognised in accordance with the standard that prescribes how to account for that asset. AASB 116 does not prescribe the unit of account (AASB 116, para 9). Accordingly, what constitutes an item of property, plant and equipment is a matter for judgement.

In exercising professional judgement for an entity's specific circumstances, entities should consider the following issues in determining the unit of account:

- How the business is managed. This may be evidenced by:
 - \circ $\;$ How management assesses and monitors performance.
 - Whether the business is managed on an individual, functional, geographical or total entity basis. Supporting documents include strategies in respect of service delivery, capital expenditure, asset management and risk management.
 - Whether the business is managed on the basis of a cash-generating unit.
 - The regulatory approach adopted by national and state jurisdictional regulators in respect of the entity's economic and operational activities.
- What is an operating asset:
 - Whether an item has utility by itself or only when operating in conjunction with other items of property, plant and equipment – that is, whether the components work together as an integrated whole to provide a service or bundle of related services to the end customer and deliver future economic benefits.
 - What items of property, plant and equipment would be aggregated to constitute an asset for the purposes of disposal as evidenced by observable market transactions.

The unit of account is important when an agency measures the fair value of an asset subsequent to initial recognition because fair value is measured for each particular asset.

Although each particular asset is measured separately, its fair value is determined with reference to assumptions about whether its highest and best use is as a stand-alone asset or as part of a group (refer to section 4.2). Whether an asset is a stand-alone asset or part a group will depend on its unit of account (AASB 13, paras 13-14).

For example, a water corporation's rationale for using a single unit of account for a water delivery network may be based on the integrated functionality of individual components. That is, reservoirs, treatment/filtration plants and pumping stations of a water corporation may contribute towards a complete delivered water service to customers. The case for a single system/infrastructure asset may

also be evidenced by an integrated water delivery system where water may be sourced from multiple reservoirs should there be supply or water quality issues in one particular part of the system.

Alternatively, a water corporation may have three separate system/infrastructure assets (units of account) – the above-mentioned water delivery asset, as well as sewerage and drainage assets. However, the fair value of these assets may be determined as a group of assets rather than on a stand-alone basis (i.e. valuation premise is that the highest and best use is in combination with the other assets as a group) (refer to section 4.2).

Conversely, an electricity Distribution Network Service Provider may only have a single system/infrastructure asset based on an analysis of the above principles, including that all components within the network must work together in order to reliably supply electricity to the end customer. In this case the unit of account is the entire distribution network and the valuation premise is that the infrastructure asset is used as a stand-alone asset.

3.1.2 Parts of assets

Under AASB 116, parts of assets are not separate assets (AASB 116, para 43). However, major parts of an asset must be separately identified and depreciated, where they have useful lives materially different from the asset (AASB 116, para 44). For example, an aircraft has significant parts (the airframe and the engines) that can be depreciated separately. However, the asset is the aircraft.

The separate identification and depreciation of material parts of assets is important in the valuation of assets. That is, fair value must be attributed to each part of the asset. For example, the fair value of material parts of an asset may be determined by apportioning the value attributable to the whole asset to the parts.

3.2 Condition and location

- Fair value must take into account the condition and location of the asset, where market participants would take into account those characteristics (AASB 13, para 11).
- For example, a market participant may require the asset to be in a different condition, in which case the fair value adjusts for the costs to convert the asset that would be incurred by a market participant. This may occur where the highest and best use for the asset is not the current use of the asset (refer section 4.1). In these circumstances, the cost to convert the asset to the highest and best use is taken into account, which may include the costs to obtain different zoning permissions and demolition costs (refer IFRS 13, Illustrative Example 2 and para BC69).
- Similarly, the market participant may require the asset to be in a different location. This means that transport costs should be taken into account where the location of the asset is a characteristic of the asset. In contrast, transaction costs are not a characteristic of the asset and therefore should not be taken into account in fair value measurement (AASB 13, para 26).
- A distinction, however, may need to be made between initial recognition and subsequent measurement. That is, transaction costs are included on initial recognition of investment property under AASB 140, para 20, but are excluded from subsequent measurement at fair value.

3.3 Restrictions

Fair value measurement of a particular asset is impacted by restrictions on the sale or use of an asset if market participants would take those restrictions into account when pricing the asset (AASB 13, para 11(b)).

Restrictions on the asset that are:

- entity specific should not be taken into account because a potential buyer would not be subject to the restriction
- a characteristic of the asset should be taken into account because the restriction would transfer to the potential buyer with the asset.

Illustrative Example 9 to IFRS 13 provides an example of this.

Governments mandate that specified services be provided to the public. This imposes restrictions on the sale or use of most government assets because the entity is not able to sell or change the use of the asset, unless approved by government (including both the land and the assets on the land). As a result, restrictions imposed by a government regarding the use and disposal of assets in the public sector are a characteristic of the asset (rather than entity specific).

This is similar to the example of an easement in Illustrative Example 9 to IFRS 13. Because the easement is specific to the characteristics of the land, the restriction would be transferred to market participants with the land. Therefore, the restriction on both the sale and use of the land must be taken into account in measuring the fair value of the land.

Another public sector example is the regulatory environment imposed by a rate regulator, which effectively places a ceiling on the potential revenue stream that can be generated by the asset. Because the regulatory prices would apply to any market participant that operated the asset (i.e. would transfer with the asset) the regulatory environment would be taken into account in measuring fair value of the asset.

In summary, in the public sector, restrictions on the sale or use of assets by entities arise from the physical, legal, financial and the socio-political environment. Most NSW public sector entities are mandated by government / ministerial directives or legal / administrative requirements to continue to provide the services that the assets assist them in providing. The mandates eliminate alternative uses. As a result, much of the land held in the public sector is held as community, cultural or heritage assets, or is land under assets held for such purposes.

As a result, in *most* but not all circumstances, restrictions on the sale or use of an asset by a government entity is a characteristic of the asset which a market participant would take into account when pricing the asset. Restrictions imposed by government *substantially eliminate* alternative uses of the asset. Such restrictions mean that alternative uses are not available and therefore should not be taken into account in valuing particular assets, especially specialised infrastructure and the land under them.

Restricted land assets in the public sector include parks and botanical gardens, national parks and reserves that are held for public benefit. Restricted assets also include land under specialised assets or infrastructure assets e.g. railway corridors. Also, land under most schools, hospitals and fire stations have a restricted use, because the entity is mandated to continue to provide the services and the services are needed at that location.

In these circumstances, a market participant would price a government asset based on its current restricted use. Notwithstanding this, in limited circumstances a higher restricted alternative use is available. Further, in relatively rare circumstances, a higher unrestricted alternative use is available.

where there is the expectation that the previously mandated service is no longer required or mandated. The above two limited circumstances are discussed in further detail in section 4.1 regarding highest and best use.

4. The transaction and price

- Fair value measurement is based on a hypothetical transaction (IFRS 13, para BC30). It assumes that the asset is exchanged in an orderly transaction between market participants to sell the asset at the measurement date under current market conditions (AASB 13, para 15).
- Although fair value is an exit price (i.e. price to sell the asset), it applies regardless of whether an entity intends to use an asset or sell it (IFRS 13, para BC39 and AASB 13, para 3). Even where an entity intends to hold an asset and generates cash flows from using the asset, an exit price is still relevant as it incorporates expectations of cash flows arising from using the asset by selling it to a market participant that would use it in the same way. A market participant buyer will only pay for the benefits it expects to generate from the use, or sale, of the asset.
- An orderly transaction is one that assumes exposure to the market for a period before the measurement date to allow for marketing activities that are usual and customary for transactions involving such assets; i.e. it is not a forced sale (AASB 13, Appendix A, defined terms).
- Fair value should be determined having regard to market transactions that occur between buyers and sellers that are both fully informed and are each acting knowledgeably, prudently and without compulsion. In uncertain times there may be either a lack of transactions or certain transactions may result from forced sale circumstances where the vendor is under duress and forced to accept a price less than market levels. Asset valuations in an environment of uncertainty may require a higher degree of professional valuer vigilance, experience, and judgement, with analysis of each transaction undertaken to determine the circumstances surrounding the transaction and whether the transaction is reflective of market conditions. Accordingly, asset valuations should be based on sustainable market prices, i.e. disregard effects of abnormal forced sales.
- Additional guidance is provided in the Standard to help determine whether a transaction is orderly (AASB 13, B43-B44) and to measure fair value when the volume or level of activity for an asset has significantly decreased (AASB 13, para B37-B42).

4.1 Highest and best use

AASB 13 (para 27) states that non-financial assets measured at fair value must take into account a market participant's ability to generate economic benefits by:

- using the asset in its highest and best use or
- by selling it to another market participant that would use the asset in its highest and best use.

Highest and best use is defined as the use of a non-financial asset by market participants that would maximise the value of the asset or group of assets and liabilities within which the asset would be used (AASB 13, Appendix A, defined terms).

Highest and best use results in the most appropriate fair value because:

- fair value is defined by AASB 13 as an exit price between market participants (refer to section 2.1)
- the prudent well-informed vendor would not be willing to sell for less than its highest and best use

 the prudent well-informed buyer would not expect to purchase the asset for less than its highest and best use.²

This is consistent with legal precedent and the approach codified by valuers.

Highest and best use of an asset is determined from the perspective of market participants, regardless of whether the entity intends a different use or intends to sell it (AASB 13, para 29 and IFRS 13, para BC39). However, the current use of an asset is presumed to be the highest and best use, unless market or other factors suggest that a different use by market participants would maximise the value of the asset (AASB 13, para 29).

Therefore, highest and best use takes into account the use of the asset that is (AASB 13, para 28):

- physically possible i.e. physical characteristics of the asset that market participants would take into account (e.g. location or size of a property).
- legally permissible i.e. any legal restrictions on the use of the asset that market participants would take into account (e.g. zoning regulations).
- financially feasible i.e. generates an adequate return on investment, taking into account costs to convert the asset to the alternative use, from the perspective of market participants.

To determine highest and best use, this Policy requires that agencies consider the asset's present purpose and any other more beneficial purpose that the asset may be applied 'at no remote period'.³ A practical guide to this is that an alternative use should only be considered to be feasible where it can be demonstrated that it can be achieved in the relatively near future (say the next five years) rather than at some remote future time.

Changes to restrictions on an asset can be assumed if market participants would do so. However, the risk that the change would not be granted or approved would also need to be taken into account in the same way as a market participant would take it into account. For example, IFRS 13, para BC69 notes that a fair value measurement can assume a different zoning if market participants would do so. IFRS 13 illustrates this in Illustrative Example 2 (para IE7-IE8). However, IFRS 13, para BC69 qualifies this by stating that the risk that a different zoning permission would not be granted would need to be taken into account when considering the highest and best use.

4.1.1 Impact of restrictions on highest and best use

Often in the public sector, restrictions imposed on the use or disposal of an asset are a characteristic of that asset. This is because most entities are mandated by government, ministerial directives, legal or administrative requirements to continue to provide the services that the assets assist them to provide.

Therefore, the highest and best use must take account of (or is qualified by) the characteristics of the asset being measured, including the mandated socio-political restrictions imposed by government on the use or disposal of assets (section 3.3 above) and the risk that the Government will not permit the sale or alternative use of the land or the assets on the land (IFRS 13, para BC69).

Given the nature of government, in most circumstances, it is unlikely that a higher feasible alternative use will be available at a period that is not remote. This is because the government is mandated to continue to provide the services that depend on the land and associated infrastructure. As a result, it may be that a higher feasible alternative is not possible, either because it is not legally permissible, or even if legally permissible, it may not be physically possible or financially feasible.

² Isaacs J in the High Court decision of Spencer V the Commonwealth of Australia (1907) 5 CLR 148 quoting Cockburn C.J. in The Queen v Brown [(1867) LR2 QB 630 at p631].

³ Isaacs J in the High Court decision of Spencer V the Commonwealth of Australia (1907) 5 CLR 148 quoting Cockburn C.J. in The Queen v Brown [(1867) LR2 QB 630 at p631].

For example, the potential for mining in a designated national park generally should not be taken into account when determining highest and best use. Mining may be physically possible and economically feasible because there is a market for the mineral deposits that are present in the national park. However, mining may not be legally permissible due to the statutory protection of the national park.

In other words, in the absence of evidence to the contrary, a market participant is likely to conclude that current existing use is the highest and best use of the asset, to the exclusion of potential higher value uses, for a period that is not remote. This is illustrated in the following discussion.

Current restricted use (or existing use)

Restrictions imposed by government *substantially eliminate* alternative uses of the land (as discussed in section 3.3). Such restrictions mean that alternative uses are not legally permissible and therefore should not be taken into account in valuing particular assets, especially specialised infrastructure and the land under them. Therefore, the highest and best use for these assets is their current restricted use (or existing use).

Assets with no higher feasible alternative use include parks and botanical gardens, national parks and reserves, most community assets such as schools and hospitals, some heritage properties, library and museum collections and most specialised assets (e.g. water and sewerage systems). Also, land under most schools, hospitals, fire stations, roads and under most specialised assets have no higher feasible alternative use, as the entity is mandated to continue to provide the services and the services are needed at that location.

Higher restricted alternative use

In limited circumstances, an asset may have a higher restricted feasible alternative use; i.e. where a higher feasible alternative use is available within the constraints of the asset's restrictions. For example, land under Parliament House, Government House and similar historic and heritage buildings are restricted, but only to the extent of the restricted alternative uses of the buildings. That is, a historical building could be used for office accommodation, or other purposes. In such cases, the highest and best use is the higher of the current use and any restricted alternative uses.

Higher unrestricted alternative use

There are limited circumstances where the highest and best use of an asset will be the higher of the current use and any higher unrestricted alternative use. For example, a school may no longer be required in that location because of changes in demographics over time or consolidation of services for strategic and efficiency reasons. Generally, this would be supported by a government decision that the asset is surplus.⁴ Similarly, it may be feasible to move a fire station located in the centre of a country town to the outskirts.

In the above limited circumstances, fair value measurement can assume a different zoning if market participants would do so. This would incorporate the cost to convert the asset (including demolition costs) and obtain the different zoning permission, including the risk that such permission would not be granted (AASB 13, para 11, IFRS 13, Illustrative Example 2 and para BC69).

Highest and best use must also be applied in conjunction with the following guidance on the valuation premise (section 4.2) and the reference market (in section 4.3).

⁴ Various Acts of Parliament and other legislative and administrative requirements govern the provision of government services. Often such instruments require formal Ministerial approval prior to the cessation or closure of certain functions. For example, the NSW *Education Act 1990* allows a Minister to close a government school, but only in accordance with the Act, which requires certain processes to be followed.

4.2 Valuation premise

The highest and best use establishes the valuation premise as either (AASB 13, para 31):

- stand-alone or
- in combination with other assets.

The valuation premise depends on the unit of account (refer to section 3.1.1).

Illustrative Example 3 to IFRS 13 demonstrates application of the valuation premise concept.

If the highest and best use is on a stand-alone basis, the fair value is the price that would be received in a current transaction to sell the asset to market participants that would use the asset on a stand-alone basis (AASB 13, para 31(b)).

If the highest and best use is in combination with other assets as a group or in combination with other assets/liabilities, the fair value is the price that would be received to sell the asset to market participants that would use the asset in combination with these other assets/liabilities. This assumes that those other assets/liabilities would be available to the buyer.

Where the highest and best use is in combination, the assumptions about highest and best use must be consistent for all assets of the group of assets or group of assets and liabilities within which the asset would be used (AASB 13, para 31(a)(iii)) (refer IFRS 13, Illustrative Example 1). This is the case, regardless of whether any individual asset within the group would have a higher value under another premise.

When measuring the fair value of a non-financial asset used in combination, the effect of the valuation premise depends on the circumstances, e.g. (AASB 13, para B3):

- The fair value of the asset may be the same whether stand alone or in combination, e.g. if the asset is a business that market participants would continue to operate.
- The fair value of assets in combination may be determined from adjustments to the value of the asset using a stand-alone basis (e.g. adjust for transport and installation costs), through market participant assumptions, or through the valuation technique (e.g. multi period excess earnings method).
- The fair value of an asset used in combination may be an allocation of the total fair value for the asset group, e.g. allocation of fair value of improved property to component assets such as land and improvements.

Fair value measurement assumes the asset is sold consistently with the unit of account determined under other Accounting Standards. This is the case even when the fair value measurement assumes the highest and best use is in combination, as fair value assumes market participants already hold complementary assets (AASB 13, para 32).

For example, if a water corporation that has three assets (units of account) (i.e. a water delivery asset, a sewerage asset and a drainage asset) and the highest and best use of these assets is achieved "in combination" (valuation premise), the valuation of any one of these assets (e.g. water delivery asset) is valued on the assumption that market participants already hold the other two assets (e.g. sewerage asset and drainage asset) (refer section 3.1.1).

The International Accounting Standard provides a number of illustrative examples, which demonstrate the application of highest and best use and the valuation premise (refer IFRS 13, Illustrative Examples 1, 2 and 3).

4.3 Principal market

Fair value assumes the transaction takes place in either the principal market or, in the absence of a principal market, in the most advantageous market for the asset (AASB 13, para 16).

The entity only needs to have access to the principal market at the measurement date. It does not need to be able to sell the asset on that date (AASB 13, para 19-21). For example, if there is a restriction on sale, an entity only needs to be able to access that market when the restriction ceases. However, the restriction may impact on the price a market participant may pay. The impact of restrictions on fair value measurement is discussed in section 3.3.

The principal market is based on the volume or activity for the asset rather than the volume or activity of the reporting entity in a particular market (AASB 13, Appendix A, defined terms and IFRS 13, para BC52). The entity must use the price from the principal market (whether directly observable or estimated using another valuation technique) even if the price in a different market is potentially more advantageous (AASB 13, para 18).

In the absence of contrary evidence, the market in which the entity would normally enter a transaction to sell is presumed to be the principal market or, in the absence of a principal market, the most advantageous market. An exhaustive search of all possible markets is not required (AASB 13, para 17).

IFRS 13, Illustrative Example 6 demonstrates how the concept of the principal and most advantageous market applies in practice.

However, identifying a principal or most advantageous market does not depend on the existence of an observable market. AASB 13 (para 21) clarifies that when there is no observable market, the fair value measurement must assume a transaction takes place at that date, considered from the perspective of a market participant that holds the asset; i.e. based on a hypothetical market.

4.4 Market participants' perspective

Fair value is based on market participants' perspective, using assumptions market participants would use when pricing, assuming they act in their economic best interest (AASB 13, para 22).

An entity, however, need not identify specific market participants. Instead, an entity should identify the characteristics that distinguish market participants generally, considering factors specific to all of the following (AASB 13, para 23):

- the asset
- the principal (or most advantageous) market for the asset (to which the entity has access)
- market participants with whom the entity would enter into a transaction in that market.

That is, fair value is not an entity specific value, nor is it a specific value to one market participant. Fair value would be the price that typical market participants would pay for the asset.

Market participants are defined as buyers and sellers in the principal (or most advantageous) market for the asset that have all of the following characteristics (AASB 13, Appendix A, defined terms):

- they are independent of each other (but related party transactions may be an input if there is evidence that they were entered into at market terms)
- they are knowledgeable
- they are able to enter into a transaction for the asset

• they are willing to enter into a transaction for the asset but are not forced / compelled.

Where there is more than one type of market participant in the principal market (e.g. strategic buyers and financial buyers) for the asset, a separate fair value estimate of the assets should be obtained for each type of market participant so as to determine which type of market participant generates the maximum value for the asset group (refer IFRS 13, Illustrative Example 1).

Assumptions include assumptions market participants would use when pricing the asset, including assumptions about risk (AASB 13, para 3).

A market perspective is still required even where market observable data is not available. That is, an entity must adjust their own data if reasonably available information indicates that other market participants would use different data or the entity has an entity specific synergy that a market participant would not have access to. An entity must take into account all information about market participant assumptions that is reasonably available (AASB 13, para 89).

5. Valuation techniques

Where a price for an identical asset is not observable, an entity measures fair value using another valuation technique that maximises the use of relevant observable inputs and minimises the use of unobservable inputs (AASB 13, para 3).

Agencies must use one or more of the following valuation techniques to determine fair value (AASB 13 para 62):

- Market approach
- Income approach
- Cost approach

The exception is that agencies must use the cost approach to fair value to measure service concession assets (AASB 1059 *Service Concession Arrangements: Grantor,* para 9). See further guidance in section 7.6.

AASB 13 is based on a hierarchy of inputs rather than a hierarchy of valuation techniques (AASB 13, para 72 and IFRS 13, para BC142). An entity must use valuation techniques (i.e. a single valuation technique or multiple valuation techniques) that:

- are appropriate in the circumstances
- sufficient data is available for
- maximises the use of relevant observable inputs and minimises the use of unobservable inputs (AASB 13, para 61)

In some cases, a single valuation technique will be appropriate (e.g. where there are quoted prices in an active market for identical assets). In other cases, multiple techniques will be appropriate (e.g. that might be the case when both the cost and income approach could be used to value a cash generating unit). Where multiple valuation techniques could be used to measure fair value, the fair value is the value that is most representative of fair value in the circumstances (AASB 13, para 63). Judgement will be needed in selecting the techniques that are most appropriate in the circumstances. It is not necessary to calculate fair value under all available valuation approaches, but agencies must justify and document how they chose the valuation technique and how the approach complies with the accounting standards (refer section 8.5).

For example, for for-profit public sector entities holding infrastructure assets, both the cost approach and the income approach may be available. However, where both approaches use the same level of observable inputs, it is likely that the appropriate fair value will be limited to the lower of the income approach and the cost approach, based on existing use and the in-combination valuation premise. This is because fair value is an exit price and market participants would not pay more than the lower of:

- the cost to replace the service capacity of the asset (the cost approach) or
- the amount that could be recovered from future use of the asset (the income approach).

For example, where prices are set by a regulator, it is likely that applying the income approach will result in a lower value than the cost approach. In this case, the fair value 'exit price' would be determined under the income approach.

Valuation techniques should be applied consistently but may be changed if it results in measurement equally or more representative of fair value in the circumstances, which might be the case where there are new markets, new or changed information available, improved valuation techniques or different market conditions etc. (AASB 13, para 65). Revisions from a change in valuation technique must be accounted for as a change in estimate under AASB 108, but disclosures in AASB 108 are not required (AASB 13, para 66).

A valuation technique which uses unobservable inputs should be calibrated at initial recognition so that the result of the valuation technique equals the transaction price (where the transaction price equals fair value). Calibration helps to determine whether an adjustment to the valuation technique is necessary (e.g. where a characteristic of the asset is not captured by the valuation technique) (AASB 13, para 64).

5.1 Market approach

The market approach uses prices and other relevant information generated by market transactions involving identical or similar assets (AASB 13, para B5). This often involves using comparable market data and adjusting it for size, location, zoning and other relevant attributes.

The market approach is likely to be used to value generalised tangible assets because of the availability of market transactions and observable prices for identical or similar assets. Conversely, for specialised assets (whether the entity is not-for-profit or for-profit), it is unlikely that a market price, if available, would capture the value that the specialised asset contributes to the business. This is because specialised public sector assets are rarely traded and reliable comparisons with similar assets can rarely be made, given the asset's specialised features. In such circumstances an entity will need to use another valuation technique such as the income approach or cost approach (IFRS 13, para BC79) (refer section 5.2 and 5.3 below).

5.2 Cost approach

The cost approach reflects the amount that would be required currently to replace the "service capacity" of an asset (AASB 13, Appendix A, defined terms), adjusted for obsolescence (AASB 13, para B9). This valuation technique is often referred to by the valuation profession as the current replacement cost of a modern equivalent asset.

The IASB notes that an entity's cost to replace an asset would equal the amount that a market participant buyer of that asset would pay to acquire it, i.e. entry and exit price would be equal in the same market. Thus, the IASB concludes that the cost approach is consistent with the exit price definition of fair value (IFRS 13, para BC141).

However, as discussed in section 5, for for-profit entities, the cost approach may not be representative of the exit price if the fair value under the income approach is lower than the fair value under the cost approach.

In contrast, for not-for-profit public sector entities the cost approach may be the most appropriate because:

- not-for-profit entities do not operate with the objective to generate a profit, and the cost of
 most services is either totally, or substantially, subsidised by the government in the form of
 appropriations or grants. As a result, the income approach is normally not relevant.
- the market approach will generally not be relevant, because identical or similar assets are rarely traded and the specialised features of the assets used in a group rarely allow relevant comparisons with the prices of similar assets
- as noted above, the cost approach will be more widely relevant, given the specialised nature of many public sector assets. As AASB 13 notes, in many cases, the cost approach is used to measure fair value of tangible assets used in combination with other assets (AASB 13, para B9). This is demonstrated in Illustrative Examples 4 and 5 to IFRS 13, which shows the use of multiple techniques. Example 4 comments that where customisation is extensive, fair value would be measured using the cost approach.

5.2.1 Modern equivalent asset

The concept of the cost approach in AASB 13 is based on replacing the "service capacity" of an asset (AASB 13, Appendix A, defined terms). In determining the cost to replace the service capacity of an asset, reference should be made to a substitute of comparable utility (i.e. modern equivalent asset), adjusted for obsolescence (AASB 13, para B9).

IVS 105 *Valuation Approaches and Methods* (IVS 105) (para 70.5) clarifies that the replacement cost is generally that of a modern equivalent asset, which is one that provides similar function and equivalent utility to the asset being valued, but which is of a current design and constructed or made using current cost-effective materials and techniques.

A modern equivalent asset should be of commercially available technology and should not require a redesign or re-engineering of an entity's existing plant. In other words, replacement cost is the minimum that it would cost, in the normal course of business, to replace the existing asset with a technologically modern equivalent new asset with the same economic benefits, allowing for any differences in the quantity and quality of output and in operating costs.

The modern equivalent asset approach recognises that there is always some degree of suboptimality and allowance for growth in future demand, and it reflects the historical development of the existing business, the time lag in asset planning and construction, the very long lives of the assets, and the replacement of their components in the normal course of business. As asset systems expand and change, a degree of suboptimality at any point of time is inevitable and is part of the total cost of output.

Further, the concept of modern equivalent valuation is not based on the optimal replacement of an entity's entire asset network. This is because of the constraints imposed by the existing network and customer access to services. Rather, a modern equivalent asset refers to a replacement that occurs in the normal course of business, which is subject to these existing constraints.

For example, in the electricity distribution industry, these constraints include the given positions of points of supply and customers. Similarly, in the road and rail industries, the existing transport network means that replacement of the entire network is not feasible in the normal course of business.

5.2.2 Replacement cost versus Reproduction cost

Reproduction cost is an application of the cost approach under AASB 13. Reproduction cost method is defined as a method that indicates value by calculating the cost of recreating a replica of an asset (IVS 105, para 70.1(b)). The reproduction cost is the estimated cost to construct an exact replica to the extent possible, using the same specifications, materials and construction techniques and design as the asset being valued.

Reproduction cost is appropriate in circumstances such as the following:

- the cost of a modern equivalent asset is greater than the cost of recreating a replica of the subject asset, or
- the utility offered by the subject asset could only be provided by a replica rather than a modern equivalent (IVS 105, para 70.6).

For example, a reproduction cost may be appropriate in the public sector for certain heritage, cultural or collection assets. This depends on whether market participants would consider a modern equivalent asset as an alternative or whether they would be likely to require a direct replica. This is further discussed in section 7.4.2.

5.2.3 Cost elements

According to AASB 13, Appendix A, the cost approach reflects the amount required to replace the service capacity of the asset. This should include all costs that would be incurred by a typical market participant seeking to create an asset of comparable utility.

This is consistent with AASB 13, para 11 that requires the fair value to take account of the characteristics of the particular asset, including the condition and location of the asset.

For real property, i.e. land and buildings, the replacement cost must reflect all incidental costs, as appropriate, such as the value of the land, infrastructure, design fees, finance costs and developer profit that would be incurred in creating an equivalent asset (IVS 400 Real Property Interests, para 70.5).

5.2.4 Obsolescence

The carrying amount of a depreciable asset must reflect the remaining economic benefits of the asset. Therefore, the cost of creating an asset of comparable utility must be adjusted for any obsolescence in the asset being measured, which is broader than the concept of depreciation under Accounting Standards (AASB 13, para B9). Both AASB 13 and IVS 105 refer to three types of obsolescence: physical, functional and economic (external) obsolescence.

Physical obsolescence

Physical obsolescence is any loss of utility due to physical deterioration of the asset or its components resulting from its age and usage (IVS 105, para 80.2(a)). Some physical deterioration is curable by maintenance and repair, which can be estimated by the cost to cure it. Other causes of physical obsolescence cannot be remedied and the adjustment for incurable physical obsolescence is equivalent to the proportion of the expected total life of the asset consumed (IVS 105, para 80.5).

Physical deterioration and remaining life of assets can be measured by way of condition assessment via physical inspection by valuers or via existing condition assessment reports prepared by agencies internally. A condition assessment should be performed unless it is not physically possible. Only in rare circumstances will physical condition assessments not be possible.

Functional obsolescence

Functional obsolescence refers to any loss of utility from inefficiencies in the subject asset compared to its replacement such as its design, specification or technology being outdated (IVS 105, para 80.2(b)). IVS 104 identifies two forms of functional obsolescence as follows (IVS 105, para 80.6):

- Excess capital costs where the subject asset has higher capital costs than the modern equivalent asset, as a result of changes in design, materials, technology or manufacturing techniques
- Excess operating costs where the subject asset has higher operating costs than the modern equivalent asset, caused by improvements in design or excess capacity (see 'Economic (external) obsolescence' below).

Economic (external) obsolescence

Economic or external obsolescence is a loss of utility caused by economic or locational factors external to the asset. This type of obsolescence can be temporary or permanent (IVS105, para 80.2(c)). External factors may relate to changes in supply and demand.

For real estate, examples of economic obsolescence include:

- adverse changes to demand for the products or services produced by the asset,
- oversupply in the market for the asset,
- a disruption or loss of a supply of labour or raw material (IVS105, para 80.7).

In not-for-profit entities, a test of "service potential" can be applied, where service potential provides the means for an entity to achieve its objectives and provide benefits to those using the asset.

It is possible that natural disasters and/or other circumstances may result in some assets such as public transport, schools, sports stadiums experiencing declines in demand for their services and potentially some surplus capacity.

In these circumstances, agencies will need to consider whether surplus capacity requires adjustments to current replacement cost. When the assets are likely to be fully utilised in the long-term, short-term surplus capacity should not affect current replacement cost valuations, as it does not, on its own indicate obsolescence of those assets.

5.3 Income approach

The income approach converts future amounts to a single current (discounted) amount (AASB 13, Appendix A, defined terms). This includes present value techniques, option pricing models and the multi period excess earnings method (AASB 13, para B10-11).

For specialised assets held by public sector entities, the income approach will generally be appropriate to for-profit entities or cash generating units of not-for-profit entities. The income approach may also be appropriate to valuing generalised property, such as office buildings, for either not-for-profit or for-profit entities.

Where the income approach is applied in the public sector, the most common method is likely to be a present value technique.

AASB 13 discusses two different present value techniques: the discount rate adjustment technique and an expected cash flow technique. However, the Standard does not prescribe the use of a single specific technique (AASB 13, para B12).

The Standard outlines the following general principles when discussing present value techniques (AASB 13, para B14):

- Cash flows and discount rates used should reflect assumptions that market participants would use when pricing
- Cash flows and discount rates should take into account only factors attributable to the asset being measured
- Discount rates should reflect assumptions consistent with those inherent in the cash flows
- Assumptions about cash flows and discount rates should be internally consistent
- Discount rates should be consistent with underlying economic factors of the currency.

The Standard also clarifies that fair value measurement should include a risk premium reflecting the amount that market participants would demand as compensation for the uncertainty inherent in the cash flows (AASB 13, para B16). However, risk is adjusted in different ways, as a discount rate adjustment or in an expected present value technique (AASB 13, para B17).

There is also additional guidance included in the IVS 105 (para 40.1-50.4).

6. Inputs to valuation techniques

Fair value measurement in AASB 13 is based on a hierarchy of inputs (rather than a hierarchy of valuation techniques), ranked from highest to lowest priority, as follows (AASB 13, para 67-90):

- Level 1 inputs quoted prices in active markets for identical assets
- Level 2 inputs inputs other than quoted prices observable for the asset, either directly or indirectly
- Level 3 inputs unobservable inputs.

Therefore, in measuring fair value, highest priority is given to quoted prices in active markets for identical assets and lowest priority is given to unobservable inputs (AASB 13, para 72).

Inputs are defined as the assumptions that market participants would use when pricing the asset, including assumptions about risk, such as the risk inherent in a particular valuation technique and the risk inherent in the inputs to the valuation technique. Inputs may be observable or unobservable (AASB 13, Appendix A, defined terms).

The Standard outlines a number of general principles regarding valuation inputs, as follows (AASB 13, para 67-69):

- Valuation techniques must maximise the use of relevant observable inputs and minimise the use of unobservable inputs (AASB 13, para 67).
- An entity must select inputs consistent with the characteristics of the asset that market participants would take into account, which may include an adjustment, such as a premium or discount (but only where it is a characteristic of the asset rather than a characteristic of the entity holding the asset) (AASB 13, para 69).
- An entity must use the quoted price in an active market without adjustment (if this exists), except as otherwise specified (AASB 13, para 69).

Fair value measurement is categorised in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant *to the entire measurement* (AASB 13, para 73).

Assessing the significance of a particular input to the entire measurement requires judgement. Although no guidance is provided on this in the Standard, the impact of inputs may be assessed through the use of sensitivity analysis in relation to unobservable inputs. When more than one input of unobservable data is used to measure fair value, this assessment should be performed on both an individual and aggregate basis. It is also advisable that entities have a documented policy with respect to their approach to determining the significance of unobservable inputs on its fair value and apply the policy consistently.

Further, an entity is required to disclose and consistently apply a policy for determining the timing of recognising transfers between levels of the fair value hierarchy (which must be the same policy for transfers into and out of the levels) (AASB 13, para 95) (refer to section 9).

6.1 Level 1 inputs

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets that the entity can access at the measurement date (AASB 13, para 76).

An active market is a market in which transactions for the asset take place with sufficient frequency and volume to provide pricing information on an ongoing basis (AASB 13, Appendix A, defined terms).

AASB 13 states that a quoted price in an active market provides the most reliable evidence of fair value, and must be used without adjustment to measure fair value whenever available, except as specified (AASB 13, para 77).

However, it is unlikely that level 1 inputs will be available for non-financial assets, such as property, plant and equipment, given that it is unlikely that there will be quoted prices and an active market for identical assets.

6.2 Level 2 inputs

Level 2 inputs are inputs (other than quoted prices in level 1) that are observable for the asset, either directly or indirectly (AASB 13, para 81). Inputs are observable where they are developed using market data, such as publicly available information about actual events or transactions, and that reflect the assumptions that market participants would use when pricing the asset (AASB 13, Appendix A, defined terms).

Level 2 inputs include quoted prices for similar assets in active markets, quoted prices for identical or similar assets in markets that are not active, inputs other than quoted prices that are observable (e.g. interest rates, credit spreads etc.) and market corroborated inputs (AASB 13, para 82).

Market corroborated inputs are inputs that are derived principally from or corroborated by observable market data by correlation or other means (AASB 13, Appendix A, defined terms).

Adjustments to level 2 inputs include factors specific to the asset, including the condition or location of asset, the extent to which inputs are comparable, and the volume or level of activity (AASB 13, para 83). An adjustment to a level 2 input that is significant to the entire measurement might result in the fair value measurement being categorised within level 3 if the adjustment uses significant unobservable inputs (AASB 13, para 84).

Examples of level 2 inputs include (AASB 13, para B35):

- for a building held and used the price per square metre for the building (a valuation multiple) derived from observable market data.
- for a cash generating unit multiple of earnings or similar performance measure derived from observable market data involving similar businesses.

6.3 Level 3 inputs

Level 3 inputs are unobservable inputs (AASB 13, para 86). If an observable input requires an adjustment using an unobservable input and that adjustment results in a significantly higher or lower fair value measurement, the resulting measurement would be categorised within Level 3 of the fair value hierarchy (AASB 13, para 75).

An entity uses unobservable inputs to the extent relevant observable inputs are not available. But the objective remains the same; i.e. an exit price from the perspective of market participants. Therefore, unobservable inputs must reflect the assumptions market participants would use when pricing, including assumptions about risk (AASB 13, para 87).

Assumptions about risk include risk inherent in a particular valuation technique and risk inherent in inputs to the technique (AASB 13, para 88). Such an adjustment may be necessary if there is a significant measurement uncertainty.

An entity must develop unobservable inputs using the best information available, which might include an entity's own data. An entity may begin with its own data, but adjust it if reasonable available information indicates other market participants would use different data or if there is an entity specific synergy (i.e. not available to other market participants). But the entity need not undertake exhaustive efforts to obtain information about market participants assumptions (AASB 13, para 89).

An example of a level 3 input includes the use of financial forecasts for measuring the fair value of a cash generating unit, using the entity's own data if there is no reasonably available information that indicate that market participants would use different assumptions (AASB 13, para B36).

7. Application of AASB 13 to particular types of physical non-current assets

This section of the Policy applies the AASB 13 fair value principles discussed in the previous sections to particular categories of physical non-current assets common in the public sector, namely:

- land
- buildings
- specialised plant and infrastructure
- heritage and cultural assets
- other non-specialised assets and
- service concession assets.

In particular, this section examines the public sector implications of:

- highest and best use and the asset's characteristics
- the valuation technique and
- the fair value hierarchy.

Impairment testing is also discussed for property, plant and equipment.

7.1 Valuation of land

7.1.1 Highest and best use and the asset's characteristics

Highest and best use is qualified by the asset's characteristics including any restrictions on the use and disposal of land, as well as the risk that any alternative use will not be approved (refer sections 3.3 and 4.1).

Much land in the public sector is held as community, cultural or heritage assets or is land under assets held for such purposes. Further most entities are mandated by government / ministerial directives or legal / administrative requirements to continue to provide the services that the land assists them in providing.

Land assets in the public sector with no feasible alternative use include:

- parks and botanical gardens, national parks and reserves that are held for public benefit and certain vacant Crown land
- land under specialised buildings or infrastructure assets that are restricted in use as a result of mandates for service delivery; e.g. NSW railway corridors.

Land under Parliament House, Government House and historic and similar heritage buildings are restricted to the extent of the restricted use of the buildings on the land.

Land with a restricted use will usually be measured in combination with any plant or infrastructure on the land (i.e. the valuation premise).

In contrast, other land in the public sector may be surplus (i.e. not restricted in use) or held to earn rentals or capital appreciation (i.e. investment property) and can be valued based on any higher feasible alternative use. In such cases, highest and best use may be either stand alone or in combination with any building or structure on the land.

This includes Crown land that is designated for development and disposal, and land under general purpose buildings or generalised plant. Also, as discussed in section 4.1.1 there are limited circumstances where say a school or hospital is not required in a particular location because of demographics (supported by a government decision), in which case fair value may be represented by a higher feasible alternative use.

7.1.2 Valuation technique

Land in the public sector (whether measured based on existing use or a feasible alternative use) will usually be measured using the market approach (i.e. based on a market selling price) or income approach (e.g. derived from observable current market rentals for leased land). The exception to this measurement approach is land as part of a service concession arrangement which is measured at current replacement cost under the cost approach to fair value. However, information about market prices of similar land may provide evidence of the replacement cost of the land. Further guidance is provided in section 7.6.

A market approach will usually be available even where land has no feasible alternative use. For example, land under roads⁵ has no feasible alternative use, and is valued using the market approach. The existing use fair value of land under roads is best expressed as undeveloped or en globo land

⁵ NSW public sector entities are required to recognise *all* land under roads, in accordance with AASB 1051 *Land under roads*.

(pre-subdivision). However, as sufficient sales evidence of en globo land with similar features to the land being valued is generally not available, it is appropriate to use a proxy to estimate the en globo value. Open space land value is used as a reasonable proxy to value land under roads, as such land generally has no feasible alternative use, it is undeveloped and is publicly accessible. This is still regarded as an application of the market approach as it refers to market transactions.

7.1.3 Fair value hierarchy

Land valuations are likely to be assessed at level 2 or level 3 of the fair value hierarchy, depending on the market conditions and whether similar types of land are actively traded.

Assessment at a lower level of the fair value hierarchy may be more likely in circumstances where the asset's use and disposal are restricted, as there may be less market evidence available. In these circumstances, fair value may be derived by adjusting an observable market input using an unobservable input. Where this significantly impacts on the fair value measurement, the resulting measurement would be categorised within level 3 of the fair value hierarchy (AASB 13, para 75).

7.2 Valuation of buildings

7.2.1 Highest and best use and the asset's characteristics

As discussed in section 3.3 and 4.1, highest and best use is qualified by any restrictions on the use and disposal of the building, as well as the risk that any alternative use will not be approved.

Specialised buildings are buildings designed for a specific limited purpose. Such buildings include hospitals, schools, court houses, emergency services buildings (police, fire, ambulance and emergency services stations), specialised buildings to house specialised infrastructure or plant and some heritage properties.

In most cases, such specialised buildings and the land under them have no feasible alternative use, because the entity is mandated to continue to provide the goods or services that the building permits. For example, if the government mandates that school services are to continue in an existing location, it would not be financially feasible to relocate the school (section 4.1.1). In these circumstances, specialised buildings will be measured in combination with the land on which it is built and any other related infrastructure or plant and equipment (i.e. the valuation premise).

As discussed previously, there are exceptions where specialised buildings may be regarded as surplus, and where the services can be moved to another location or are no longer required, either for strategic reasons or because of demographic changes (refer sections 4.1.1). In these circumstances, consideration would need to be given to whether highest and best use may be achieved by demolishing the building and selling the land as a vacant site, in which case highest and best use is considered after taking into account demolition costs and other costs of conversion. This is discussed in IFRS 13, Illustrative Example 2, para IE8(b).

In contrast, generalised or non-specialised buildings (i.e. commercial and general purpose buildings and investment property for which there is a secondary market) should be valued based on the existing use or any higher feasible alternative use. This will be measured in combination with the land on which it is built (i.e. the valuation premise). As above, consideration would need to be given to whether the highest and best use in combination with the land is achieved through selling the land as a vacant site. The building and the land under the building must be valued consistently (AASB 13, para 31(a)(iii)).

7.2.2 Valuation technique

Specialised buildings would generally be measured using the cost approach, or if part of a cash generating unit, the income approach.

Non-specialised buildings will usually be measured using the market approach (i.e. market selling price) or income approach (market rental income stream).

7.2.3 Fair value hierarchy

Specialised buildings are likely to be assessed at level 3 of the fair value hierarchy, due to lack of market evidence for specialised buildings.

In contrast, non-specialised buildings are likely to be assessed at level 2 or 3 of the fair value hierarchy, depending on market conditions. For example, where such buildings (e.g. real estate) are actively traded, fair value may be classified as level 2 (e.g. price per square metre), depending on the significance of adjustments to observable data. In inactive or less transparent markets (or where significant adjustments are made), it may be classified as level 3, but the factors and circumstances will need to be considered.

7.3 Valuation of specialised plant and infrastructure

7.3.1 Highest and best use and the asset's characteristics

As discussed in section 3.3 and 4.1, highest and best use is qualified by any restrictions on the use and disposal of specialised plant and infrastructure, as well as the risk that any alternative use will not be approved.

Specialised plant and infrastructure include assets, such as those of a water and sewerage authority or an electricity distributor which are highly specialised. By nature, they are designed for a specific limited purpose.

In most cases, such specialised assets and the land under them have no feasible alternative use, because the government mandates that assets continue to be used to provide the goods or services that the plant and infrastructure is used to provide. In these circumstances, specialised plant and infrastructure will be measured in combination with the land on which it is built and any other related infrastructure or plant and equipment (i.e. the valuation premise).

7.3.2 Valuation technique

Specialised plant and infrastructure would generally be measured using the cost approach, or if the entity (or unit of an entity) is for-profit (or cash-generating), the income approach. However, it may be appropriate to use multiple valuation techniques, particularly in relation to cash generating units (AASB 13, para 63).

As discussed in section 5, where both the cost and income approaches are available and use the same level of observable inputs, it is likely the appropriate fair value will be the lower of the fair values under each approach. In commercial rate-regulated industries, it is likely that the income approach will result in the value most representative of fair value. This is because the rate regulated environment may effectively enforce a ceiling on income that can be generated from use of the assets, therefore the value determined under the income approach is likely to be lower than the value determined using a cost approach.

A market approach is unlikely to be available to capture the value that the specialised asset contributes to the business. This is because specialised public sector assets are rarely traded and if a market price is available, it is unlikely that it would capture the value the specialised asset contributes to the business.

7.3.3 Fair value hierarchy

Specialised plant and infrastructure are likely to be assessed at level 3 of the fair value hierarchy, due to lack of market evidence for specialised plant and infrastructure.

7.4 Heritage / cultural assets

Heritage / cultural assets in the public sector include natural history collections, library / museum collections and heritage properties.

Specifically, natural history assets include collections from arachnology, botany, crustacean, entomology, geology, herpetology, ichthyology, invertebrate zoology, mammalogy and ornithology. Library / museum collections include artworks, furniture, jewellery, book collections, philately, coin collections, archival, technology and fashion and design collections.

Heritage properties include Government House, Parliament House and other historic properties.

7.4.1 Highest and best use and the asset's characteristics

Consistent with section 3.3 and 4.1, highest and best use is qualified by any restrictions on the use and disposal of heritage / cultural assets, as well as the risk that any alternative use will not be approved.

Heritage / cultural assets are assets held by entities because of their unique cultural, historical, geographical, scientific and / or environmental attributes. They assist the relevant entities in meeting their objectives in regard to exhibition, education, research and preservation, all of which are directed at providing a cultural service to the community.

Some heritage assets are solely of a historical or cultural interest (for example, monuments and statues) while others also provide a functional service (for example, heritage buildings used as commercial offices).

A characteristic of many cultural / heritage assets is that they have few or no alternative uses because there are natural, legal and financial restrictions on their use and disposal. Therefore, for many heritage / cultural assets, the highest and best use is the current existing use, in combination with other related heritage assets or on a stand-alone basis (i.e. the valuation premise).

There are exceptions to this, for example, where a heritage building may be available for a feasible alternative use. It may be feasible that a fire station situated in a heritage building could be relocated and the heritage building used for commercial purposes. Where this is a feasible alternative within the existing socio-political environment, then the building may be valued at a higher alternative use.

7.4.2 Valuation technique

There may be observable market prices for marketable heritage assets. Such assets would generally be measured using the market approach e.g. artworks, furniture, jewellery, book collections, philately, coin collections and works of art and heritage properties.

In the absence of observable market selling prices, specialised or unique heritage assets would generally be measured using the cost approach. For some natural history collections and some heritage buildings, the most relevant replacement cost may be a reproduction (or replication) cost (see below).

However, in determining the replacement cost of specialised or unique heritage or cultural assets, it is important to consider the function / purpose of the asset. This is further discussed in section 7.4.4 regarding reliable measurement.

Given the size and nature of library and museum collections, valuations may involve the use of sampling techniques by professional statisticians. This is further discussed in Appendix A.

The income approach is unlikely to be relevant for either specialised or marketable heritage assets, as heritage assets are not usually held as part of a cash generating unit. The exception may be where a heritage property has a feasible alternative use as say a commercial building and where the income approach is available based on current market rentals.

Reproduction Cost

For specimens in an insect collection, the only available indicator of fair value and the cost approach may be the reproduction cost. Reproduction cost is the cost of mounting an expedition or field trip to collect similar replacement specimens, together with the costs associated with their documentation and preparation.

Similarly, for heritage buildings held because of their heritage significance, current cost means the cost of replicating the existing asset. This is because the replication cost reflects the valuation of the heritage value or quality embodied in the asset.

Replication (reproduction cost) would assume reconstruction with modern materials, but sympathetic with the original heritage design and structure, to the extent that this is feasible. If a heritage building was a prestige construction with an imposing entry, high ceilings, elaborate sandstone carvings, open verandas and large carved cedar doors, the cost of replication would reflect that design and structure.

For example, it may not be feasible to replicate cedar doors built from 1,000 year-old cedar trees sourced from the Dorrigo Mountains. Instead, replication would assume sympathetic replication with similar materials. The cedar doors could be reconstructed using other available cedar. Similarly, modern construction might include concrete with sandstone façade in place of metre thick sandstone blocks.

Although the functional benefits of the building could be replicated with a contemporary building, the above sympathetic replication does not imply that the building is overvalued. Instead, the valuation accurately reflects the heritage value at current replacement/replication cost.

In other cases, it may be determined that a building has no or little heritage value. In these cases, the replacement cost, if still appropriate, would assume the existing building would be replaced by a modern building and replacement cost would reflect the value of economic (functional) benefits only.

Section 7.1 provides guidance on applying AASB 13 to Land under heritage buildings and investment properties.

7.4.3 Fair value hierarchy

Heritage assets are likely to be assessed at level 2 or level 3 of the fair value hierarchy, depending on the nature of the market. For example, there may be an active market and observable market prices

for some heritage items, such as works of art (level 2), but very thin markets and a lack of market evidence for other collections (e.g. insect collection, archival, technology and fashion and design collections) (level 3).

7.4.4 Reliable measurement

There will be instances where heritage / cultural assets are not capable of reliable measurement and will not be recognised (AASB 116, para 7(b) and Australian Implementation Guidance, para G1). This occurs where there is no market selling price and where a replacement cost is not available, or cannot be reliably measured, due to the unique nature of the asset (and the income approach is unavailable as the asset is not income generating).

Reliable measurement may be difficult for certain groups of items including:

- unique items that have iconic status (e.g. a landing board used at Gallipoli, an original Eureka flag etc.)
- historic library and museum collections; and
- items that are sacred to particular communities.

Before coming to a conclusion on reliable measurement, it is important to consider the function / purpose of the asset. It may be possible to replace the function of an asset, not with an identical asset, but with another type of asset. Therefore, the absence of an active secondary market for a particular type of asset does not necessarily mean that the asset cannot be measured reliably.

For example, an asset may represent a certain school of art or the clothes of a particular historical era. It may be possible to replace the function that a unique item performs by the acquisition of another painting of that school or some other possessions of the historical era.

However, if the painting was held because it was by a particular artist, or because the clothes had been worn by a famous fashion model, or the film had been collected because it was the work of a particular producer, the replacement items used as a reference for valuation must relate to those specific persons.

Further, for specimens, it may be that the function is more readily replaced where the specimens are intended for display rather than scientific purposes. If the function is to provide a scientific specimen representative of the location and time at which the specimen was collected, it may not be possible to replace the function of the assets. Alterations to habitat and extinction of species can make it impossible to replace many specimens.

It is important, therefore, for the collection managers to decide on the form or manner in which an asset would be replaced (where possible), having regard to its function, and to advise the valuer accordingly.

Exhibits comprising general items of technology (without any specific intrinsic characteristics) that are used to illustrate a technical process or product could be valued at either their replacement or reproduction cost, depending on the manner in which replacement would be undertaken.

After considering the above factors, however, in limited circumstances it may be determined that the function of certain library and museum collections may not be capable of reliable measurement because its function cannot be replaced, or it may not be feasible to obtain a replacement or reproduction cost given the nature of the asset (e.g. certain scientific specimen collections).

Similarly, for heritage properties, there may be cases where it is difficult to reliably measure the heritage features of a building that has both functional and heritage features. In these cases,

additional information on the heritage features and the annual maintenance/preservation costs should be included in the notes to the financial statements (see section 9.3).

Any decision not to recognise certain heritage or other assets because of the inability to obtain a reliable value must be reassessed each year and supported by an external opinion given by an expert in that particular area once in 5 years, if the asset is likely to be material to the financial statements.

Where heritage assets or other assets are not recognised in the financial statements, relevant information on those items must be disclosed in the notes to the financial statements, as outlined in section 9.3.

7.5 Other non-specialised assets

Non-specialised assets discussed in this section are physical non-current assets not otherwise discussed in this Policy. Examples include motor vehicles, office equipment and computers.

As noted above, physical non-current assets are to be valued at fair value in accordance with Accounting Standards and the additional guidance in this Policy.

For non-specialised assets with short useful lives, this Policy allows recognition at depreciated historical cost as an acceptable *surrogate* for fair value.

Historical cost is an appropriate surrogate because any difference between fair value and depreciated historical cost is unlikely to be material. In other words, it equates with fair value in all material respects. Further, the benefit of ascertaining a more accurate fair value does not justify the additional cost of obtaining it. Finally, use of a surrogate is allowed to avoid the necessity of obtaining market evidence to justify that the difference is immaterial. The valuation policy would state that the assets are valued at fair value.

Non-specialised assets with short useful lives should be tested for impairment in accordance with section 7.7 below.

7.6 Service concession assets

A service concession asset discussed in this section is defined in AASB 1059 as "an asset (other than goodwill) to which the operator has the right of access to provide public services on behalf of the grantor in a service concession arrangement that:

- the operator constructs, develops, upgrades or replaces major components, or acquires from a third party or is an existing asset of the operator; or
- is an existing asset of the grantor, including a previously unrecognised identifiable intangible asset and land under roads, or an upgrade to or replacement of a major component of an existing asset of the grantor." (AASB 1059 Appendix A)

AASB 1059 mandates the measurement of a service concession asset at **current replacement cost** in accordance with the cost approach to measuring fair value in AASB 13. This measurement approach is required for initial measurement and, when an agency uses the revaluation model, subsequent measurement of the assets (AASB 1059 para 7 and 9(b)).

Service concession assets are considered a subset of an existing class of assets, such as land & buildings, infrastructure etc (AASB 1059 para 29). Therefore, for guidance on the application of AASB

13 fair value principles to particular categories of physical non-current assets please refer to discussion in the previous sections.

Where the grantor retains control of the asset after the end of the service concession arrangement, the fair value measurement of the asset is no longer restricted to the cost approach. However, the asset will continue to be subject to the fair value principles as required under this Policy.

Measuring land under a service concession arrangement

For land that is not in the scope of AASB 1059, the market approach is typically used to measure fair value, rather than the cost approach (see section 7.1).

However, the market approach is consistent with the current replacement cost approach when measuring the fair value of land. This is because the market approach represents the amount a buyer would pay, in the market, to replace the service potential of that land. A valuer will consider the service capacity limitations of the asset when determining the current replacement cost of the land, including restrictions on sale/use e.g. zoning. A valuer will consider these characteristics when applying either a market or income approach valuation technique.

Ultimately, the cost approach for land fundamentally applies the same AASB 13 and valuation framework principles and concepts that equally apply to a market approach valuation of land (characteristics of the asset, highest & best use, valuation premise etc).

7.7 Impairment testing

AASB 136 applies to assets carried at revalued amounts under AASB 116.

AASB 136 and AASB 116

AASB 136 *does not* apply to assets of not-for-profit entities that are:

- not held primarily for their ability to generate net cash inflows and
- regularly revalued to fair value under the revaluation model in AASB 116. (AASB 136 para Aus5.1).

These are typically specialised assets held for continuing use of their service capacity and rarely sold, so their cost of disposal is typically negligible. Therefore, the recoverable amount of such assets is expected to be materially the same as their fair value.

Thus, AASB 136 applies to:

- assets held by for profit entities or
- assets held by not-for-profit entities if they are held primarily for their ability to generate net cash inflows.

Although many assets held in the public sector will not be subject to impairment provisions of AASB 136 by virtue of AASB 136 para Aus5.1, the rationale of this provision is not to exempt agencies from considering impairment indicators. Instead, it reflects the expectation that agencies will consider impairment as part of their regular revaluation policy required under AASB 13. This means it is not expected to be a material difference between the assets' carrying amount and recoverable amount. Therefore, AASB 136 provisions apply to not-for-profit entities, for example if the asset which continues to be used has been damaged, become obsolete or if there are other impairment indicators

related to the asset and the asset's loss of value has not been captured by asset revaluation. This is further supported by AASB 136 para 61 and para Aus61.1⁶.

AASB 136 also *does not* apply to *investment property* measured at fair value within the scope of AASB 140.

Entities must assess at each reporting date whether there is any indication that an asset or cashgenerating unit in the scope of AASB 136 is impaired. If such an indication exists, the entity must estimate the recoverable amount (AASB 136, para 9).

Impairment under AASB 136

An impairment loss is recognised where the carrying amount of the asset or cash-generating unit exceeds the recoverable amount (AASB 136, para 59).

Recoverable amount is defined as the higher of *fair value less costs of disposal* and *value in use* (AASB 136, para 6).

Fair value in AASB 136 is defined consistently with AASB 13. The only difference between an asset's fair value and its *fair value less costs of disposal* is the direct incremental costs attributable to the disposal of the asset (AASB 136, para 5). This means that where disposal costs are negligible, the recoverable amount of a revalued asset is close to, or greater than its revalued amount. In these circumstances, it is unlikely that the revalued asset is impaired and recoverable amount need not be estimated (AASB 136, para 5(a)).

In most circumstances we would not expect disposal costs to be material. Given this, impairment of physical non-current assets in the public sector is likely to be rare.

However, where the disposal costs are not negligible, agencies need to determine whether the asset is impaired. The revalued asset will be impaired if its *value in use* is less than its revalued amount.

Value in use' is defined as the present value of the future cash flows expected to be derived from an asset or cash generating unit (AASB 136, para 6).

Value in use is different to fair value, as fair value reflects market participants' assumptions, while *value in use* is entity specific (AASB 136, para 53A).

Agencies should refer to the additional detailed guidance in AASB 136 to confirm whether or not there is any impairment, based on their own circumstances.

7.8 Assets under construction

Accounting standards do not preclude revaluation of assets under construction.

The value of assets under construction will generally reflect the costs incurred to date in the creation of the asset (and whether those costs contributed to value) and the expectations of participants

⁶ AASB136.61: An impairment loss on a non-revalued asset is recognised in profit or loss. However, an impairment loss on a revalued asset is recognised in other comprehensive income to the extent that the impairment loss does not exceed the amount in the revaluation surplus for that same asset. Such an impairment loss on a revalued asset reduces the revaluation surplus for that asset. AASB136.Aus61.1: Notwithstanding paragraph 61, in respect of not-for-profit entities, an impairment loss on a revalued asset is recognised in other comprehensive income to the extent that the impairment loss does not exceed the amount in the revaluation surplus for that asset. Such an impairment loss does not exceed the amount in the revaluation surplus for the class of asset. Such an impairment loss on a revalued asset reduces the revaluation surplus for the class of asset. Such an impairment loss on a revalued asset reduces the revaluation surplus for the class of asset.

regarding the value of the property when complete, taking into consideration the costs and time required to complete the asset and appropriate adjustments for profit and risk (IVS 105 para 60.4).

In most cases, especially when an asset's fair value is determined based on current replacement cost, the cumulative construction cost of the asset before completion of construction and sometime after is not materially different from its fair value. Therefore, assets under construction and assets recently constructed do not usually require revaluation.

However, revaluation may need to be considered in the following circumstances:

- there is evidence the asset is impaired;
- construction occurs over a substantial number of years and historical costs no longer accurately reflect fair value (e.g. as a result of declines or increases in key cost inputs such as materials or labour); or
- construction costs capitalised in accordance with AASB 116 do not satisfy criteria for incorporation into fair value under AASB 13, (e.g. site preparation costs such as costs of demolishing or relocation of existing buildings in some circumstances)

In these circumstances, management need to assess whether the construction costs are materially different to fair value. In some instances, it may be possible for management to determine fair value. For example, where the difference relates to identifiable components of the costs. In other circumstances, it may be necessary to revalue the asset.

8. Conduct of revaluations

This section of the Policy discusses a number of issues regarding the conduct of the valuations, including:

- frequency and types of revaluations (section 8.1)
- fair value indices/indicators (section 8.2)
- qualifications of valuers (section 8.3)
- recognition date of revaluations (section 8.4)
- management of an asset revaluation (section 8.5)

Some of the above requirements are additional to the Accounting Standards and are NSW public sector specific.

8.1 Frequency and types of revaluations

8.1.1 Core requirements on revaluation – AASB 116

AASB 116 provides that:

- revaluations shall be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the end of the reporting period (AASB 116, para 31).
- some items of property, plant and equipment experience significant and volatile changes in fair value, necessitating annual revaluation; other items of property, plant and equipment with insignificant changes in fair value may be revalued only every three or five years (AASB 116, para 34).
- if an item of property, plant and equipment is revalued then the entire class of property, plant and equipment to which the asset belongs must be revalued (AASB 116, para 36).
- items within a class of property, plant and equipment are revalued simultaneously to avoid selective revaluation; but a class may be revalued on a rolling basis provided revaluation of the

class is completed within a short period and provided revaluations are kept up to date (AASB 116, para 38).

Consistent with AASB 116, agencies must assess at each reporting date whether there is any indication that an asset's carrying amount differs materially from fair value. Where any indication exists, the entities' asset must be revalued. This requires consideration of external and internal sources of information, including consideration of relevant price indices.

Agencies must review an asset's useful life and residual value at least at the end of each annual reporting period (AASB 116 para 51).

Agencies should document their annual assessment of fair value, useful lives and residual values including reasons why the agency concluded carrying amount was not materially different to fair value.

8.1.2 Comprehensive Revaluation

Comprehensive revaluation is valuation of an agency's assets which is performed or reviewed by external professionally qualified valuers and which normally includes assessment of physical condition of the assets.

This Policy requires agencies conduct a comprehensive revaluation:

- *at least* every 3 years for Land and Buildings, (except infrastructure⁷ and land under infrastructure) where the market or income approach is the most appropriate valuation technique for that asset under AASB 13 and
- at least every 5 years for all other classes of assets.

This will help ensure agencies revalue their assets frequently enough to ensure the carrying amount of the asset does not differ materially from fair value (AASB 116 para 31).

Land and buildings (excluding infrastructure and land under infrastructure) valued using the income or market approach are more likely to experience material changes in fair value from period to period, compared to other non-current physical assets. This is why this Policy requires more frequent revaluations for certain land and buildings.

Consistent with AASB 116, as part of the revaluation process, an asset's depreciation method, useful life and residual value must be reassessed (AASB 116 para 51 and para 61).

8.1.3 Interim Revaluations

In years when no comprehensive revaluation is performed, agencies must conduct management assessments (in time for Treasury's mandatory early close procedures) whether there is any indication that an agency's assets carrying amount differs materially from their fair value.

Where management assessments indicate a material difference, an interim revaluation must be performed.

Generally,

⁷ 'Infrastructure' means assets that comprise public facilities and which provide essential services and enhance the productive capacity of the economy including roads, bridges, water infrastructure and distribution works, sewerage treatment plants, seawalls and water reticulation systems. This is consistent with the definition of 'infrastructure asset' in the Financial Reporting Code.

- an interim management revaluation should be undertaken when cumulative increases / decreases in indicators/ indices based on the management assessment are generally less than or equal to 20%. Interim management revaluations involve using management (or internal) expertise by applying the relevant indexation factors (refer section 8.2) to the carrying amount
- an interim formal revaluation should be undertaken where there has been a cumulative increase / decrease in indicators / indices generally greater than 20%. Interim formal revaluations involve using external professionally qualified valuers (either to conduct the revaluation, which could be a full comprehensive inspection, a limited inspection or a desktop assessment, or to review the revaluation performed by management). Depending on management's assessment an interim formal revaluation may be replaced with a comprehensive revaluation.

Note: these thresholds are indicative only. Agencies must apply professional judgement to determine whether an interim revaluation is necessary, and which type of interim revaluation is most appropriate.

A management assessment is not the same as a management valuation. Management valuations need to use assumptions that are sufficiently granular and reliable to estimate and support the revised fair value. Management assessments can use broader inputs.

Interim revaluations may be less detailed than a comprehensive revaluation and should typically involve one or more of the following procedures: indices, desktop valuations using sampling, site visits using sampling and other professional methodologies. The appropriate form of an interim revaluation will depend on:

- The underlying valuation approach for that asset (i.e. cost, market or income);
- The assumptions/inputs that management has identified as potentially materially changing fair value. e.g. discount rates, cash flow projections, market indices;
- The availability of relevant and reliable data; and
- The degree of reliance on specialist knowledge of external valuers.

Examples of assumptions and inputs that may be appropriate for management valuations, include:

- Published indices for each of the key material and labour costs used in determining current replacement cost;
- Published market indices for commercial property in the same location, when using the market approach;
- Assessment of physical, functional and economic obsolescence; and
- Internally prepared cash flow projections based on reliable historical data and external market predictors.

Where interim management or formal revaluations results demonstrate that fair value differs materially from carrying amount, the related asset must be revalued with the results of the revaluation recognised in the financial statements.

Where there has been a movement in indicators generally greater than 20%, consideration must be given as to whether comprehensive revaluations are required more frequently. Agencies need to comprehensively revalue a class of assets more frequently where the assets are subject to significant and frequent movements in fair value. This decision must be made in conjunction with, or subject to the review of, an external professionally qualified valuer.

The agency's policy on revaluation, including on when an interim formal revaluation is undertaken (i.e. rather than a comprehensive revaluation) must be documented and disclosed, in the financial statements (refer section 9.3).

8.2 Fair value indices/indicators

Indicators/indices used in an interim revaluation must be "relevant and reliable"; i.e. they must:

- be appropriate to the class to which it is applied, in terms of location, condition and technological change, where possible; e.g. a general price index such as CPI is not an appropriate index
- have a record of regular publication / availability
- be periodically assessed for appropriateness, including as part of the comprehensive revaluation or interim formal revaluation.

For generalised property (i.e. land and buildings), relevant and reliable fair value indicators should usually be available to the public sector entity. A different index for land and buildings may be required, as land tends to appreciate in value, while the fair value of buildings tends to decline due to depreciation. This includes regularly published indices already available in the market.

For assets other than generalised property, management must refer to appropriate market or other fair value indicators.

If appropriate market or other fair value indicators are not available (e.g. for specialised assets), selection of appropriate indicators must be made in conjunction with, or be subject to the review of, external professionally qualified valuers.

8.3 Qualifications of valuers

AASB 116 does not prescribe whether valuations should be conducted by internal or external valuers. AASB 140, however, encourages, but does not require, the fair value of investment property to be determined by a professionally qualified independent valuer, with recent relevant experience (AASB 140, para 32).

This Policy requires that comprehensive revaluations and interim formal revaluations be conducted using external professionally qualified valuers (either to conduct the revaluation or to review the revaluation).

The decision as to whether a valuation is conducted rather than reviewed by external valuers requires consideration of such factors as:

- the expertise required to value the assets
- the availability of in-house expertise and whether it would be more appropriate to use staff for their core duties and
- the objectivity of in-house staff.

Depending on the valuation project, it may be appropriate for the valuations to be managed by an independent organisation with general valuation skills. Generally, an approach that combines the local knowledge and expertise of in-house staff with the expertise of external valuers will be the most effective strategy. The involvement of external valuers will help ensure independence of the revaluation process.

8.4 Recognition date of revaluations

Revaluations must be performed in time for Treasury's mandatory early close procedures. Revalued assets must be depreciated based on the revalued amounts from the day after the date of the revaluation (for example, if revalued as at 31 March, the asset is depreciated based on the revalued amount from 1 April).

At reporting date (30 June) agencies must assess whether there is any indication that an asset's carrying amount differs materially from fair value (refer section 8.1.1). Where there is an indication the carrying amount differs materially from fair value agencies must update asset values, for example by using relevant indices to roll forward the balances to year-end.

Note: agencies must perform an interim revaluation where there is an indication the carrying amount differs materially from fair value (refer section 8.1.3).

In times of market uncertainty, there is the potential for changes in market and economic information between the date of asset revaluation at early close and the reporting date:

- Formal revaluations: it is recommended that agencies obtain revaluation updates from their values or a confirmation from their valuers that the revaluation results have not materially changed as the assumptions adopted in the early close revaluation are still relevant and remain valid as at the reporting date.
- Management revaluations for assets that are not subject to a formal revaluation: a review of the changed conditions and either an update of the revaluation results or a confirmation of no change as at the reporting date to reflect any changes since early close.

8.5 Management of an asset revaluation

An individual or individuals must be appointed within the Agency to be responsible for the revaluation process, i.e. to either undertake or oversee the revaluation process, regardless of whether it is a comprehensive or interim revaluation. Where an external valuer is engaged, the responsible person(s) shall liaise with the valuer throughout the process.

A valuation plan must be prepared which sets out and governs the process for each revaluation of the agency's assets. This document must be reviewed by senior management before any Revaluation is performed.

This could include planning:

- the proposed valuation cycle
- the data sources
- the scope of the valuation
- how the valuation process is to be managed and who is responsible for managing it.

Specific items that must be documented include, but are not limited to:

- how the agency has ensured that the fair values are not materially misstated at the reporting date
- how the agency determines when it will undertake a comprehensive or interim revaluation
- the basis and annual assessment for any indices applied
- how the agency chose the valuation approach and how the approach complies with the accounting standards
- the key assumptions used in the valuation approach and the evidence to support the assumptions.
- the steps the agency has taken to review valuations undertaken by professionally qualified valuers.

The agency must instruct the valuers that their valuation (or review) must be made in accordance with this Policy and TD 21-05 Valuation of Physical Non-Current Assets at Fair Value: Mandatory Requirements. It is the primary responsibility of the agency to determine, in consultation with their valuer, the approach for the valuation and to adequately instruct the valuer. In particular, agencies must provide *written instructions* to valuers from the appropriately delegated officer in the agency in the following areas:

- Date and purpose of valuation (i.e. for financial reporting purposes under Australian Accounting Standards and Treasury's Asset Valuation Policy)
- Unit of account issues (refer section 3.1)
- Whether highest and best use is the existing use or a feasible alternative use (refer section 4.1).
- Reference market (refer section 4.3)
- Characteristics of asset to be taken into account, including existence of any contamination / damage to property including (but not limited to) areas where there is a legal or constructive obligation (refer section 3).
- Timing of any major inspection costs.
- Different categories of assets to be valued, and the quantity and quality of information available; e.g. heritage assets, assets held for sale, investment property, easements etc.
- When valuation is required.
- Scope of the site inspections
- Reference to fair value hierarchy and maximising observable inputs
- Listing of valuer assumptions, sources of information, details of comparable sales and adjustments for support/audit etc.
- For current replacement cost valuations, the consideration and treatment/adjustments for all forms of
 obsolescence
- Requirement to perform condition assessments if applicable.

The valuer must provide a written scope of work, i.e. terms of engagement on which they will be acting (refer IVS 101 Scope of Work). The content of a professionally qualified valuer's report is prescribed in IVS 103 *Reporting* and should include the following explicit statements:

- The valuation is made or reviewed in accordance with AASB 13, AASB 116, AASB 140 and AASB 1059 (where relevant) and this Policy;
- The methods(s) used in determining fair values for each class of assets; and
- The reason for the method(s) used (for example, that assets have been valued at existing use because of the restricted use or absence of feasible alternative uses).

Revaluations, whether they are performed by an independent valuer or by the agency internally, must be reviewed by an appropriately qualified person within the agency to ensure that the revaluations are appropriate before they are relied on or used by the agency.

9. Disclosures

9.1 AASB 13 disclosures

AASB 13 introduces a comprehensive disclosure framework for fair value measurements, with more disclosures required for lower levels of the fair value hierarchy than for higher levels of the fair value hierarchy.

The objective of disclosures under AASB 13 is to provide information that helps users assess the valuation techniques and inputs used to develop fair value measurements. This includes, for recurring fair value measurements at level 3, helping users understand the effect of the measurements on profit or loss and other comprehensive income for the period (AASB 13, para 91).

To meet the disclosure objectives the entity must consider:

- the level of detail necessary to satisfy the requirements
- emphasis on each of the requirements
- how much aggregation or disaggregation to undertake
- whether users require additional information to evaluate the quantitative information disclosed.

Where disclosures under AASB 13, other Australian Accounting Standards and this Policy are insufficient to meet the objectives described above, an entity shall disclose additional information necessary to meet those objectives (AASB 13, para 92).

Some of the specific AASB 13 disclosure requirements depend on whether fair value measurements are recurring or non-recurring. Recurring fair value measurements are those that other Accounting Standards require or permit in the statement of financial position at the end of each reporting period. However, this does not mean that a recurring fair value measurement is performed every reporting period, e.g. it may be necessary to revalue the asset only every three or five years under AASB 116. Non-recurring measurements are those that other Accounting Standards require or permit in the statement of financial position in particular circumstances, e.g. under AASB 5 (AASB 13, para 93(a)).

AASB 13 sets out minimum disclosures required for each class of assets and liabilities measured at fair value in the statement of financial position *after initial recognition* (AASB 13, para 93), including:

- Fair value measurement at the end of the reporting period (recurring and non-recurring)
- Reasons for measurement (non-recurring)
- Level of the fair value hierarchy (recurring and non-recurring)
- Transfers between level 1 and 2, reasons for transfers and policy for determining when transfers have occurred. Transfers in and out to be disclosed and discussed separately (recurring fair value measurements)
- Description of valuation technique and inputs used, any changes in technique and reasons for change for levels 2 and 3 (recurring and non-recurring)
- Quantitative information about significant unobservable inputs used in a level 3 valuation (recurring and non-recurring; only for for-profit entities)
- Reconciliation from opening to closing balances for recurring fair value measurements categorised within level 3 disclosing separately changes attributable to: gains/losses in profit or loss and line item other comprehensive income and line item, purchases, sale, issues and settlements and amount of transfers in or out of level 3, reasons for transfers and policy for determining when transfers have occurred, with transfers in and out disclosed and discussed separately (recurring). For Level 3 of the fair value hierarchy, the amount of the total gains or losses for the period included in profit or loss that is attributable to the change in unrealised gains or losses relating to those assets and liabilities held at the end of the reporting period, and the line item(s) in profit or loss in which those unrealised gains or losses are recognised (recurring; only for for-profit entities).
- Description of level 3 valuation processes (recurring and non-recurring)
- Narrative description of sensitivity of fair value measurement within level 3 to change in unobservable inputs if change may result in a significantly higher or lower fair value, including description of nature of interrelationships between inputs and how that effects fair value measurement (recurring; only for for-profit entities).
- If highest and best use of non-financial asset differs from current use, must disclose that fact and why non-financial asset is being used in a different manner (recurring and non-recurring).

An entity needs to determine appropriate classes on the basis of nature, characteristics and risks of the asset and level of the fair value hierarchy. The number of classes may need to be greater for level 3 valuations as measurements have a greater degree of uncertainty and subjectivity. A class will

often require greater disaggregation than the line items in the statement of financial position, but must provide information to allow reconciliation to the line item (AASB 13, para 94). A single class may include valuations at different levels of the fair value hierarchy, but an entity may need to further disaggregate if different categories indicate the assets are different in nature, characteristics or risks.

An entity must disclose and consistently follow the policy for determining transfers between levels in hierarchy and must apply the same policy for transfers in and transfers out of levels (AASB 13, para 95). For example, this may be based on the date of change in circumstance, or the beginning or end of the period. This also impacts on other disclosure requirements (especially AASB 13, para 93(c) and (e), as discussed in section 9 of this Policy).

In addition, an entity must present quantitative disclosure in a table unless another format is more appropriate (AASB 13, para 99).

9.2 AASB 116 restatement of gross amount and accumulated depreciation

AASB 116, para 35 states that when an item of property, plant and equipment is revalued, any accumulated depreciation must be treated in either of the following ways:

- "(a) Restated proportionately with the change in the gross carrying amount of the asset so that the carrying amount of the asset after revaluation equals its revalued amount. This method is often used when an asset is revalued by means of applying an index to its depreciated replacement cost; or
- (b) Eliminated against the gross carrying amount of the asset and the net amount restated to the revalued amount of the asset. This method is often used for buildings."

This Policy mandates the method in para (a) above whenever the cost approach is used. Para (a) requires the separate restatement of the gross amounts and accumulated depreciation. Where the income approach or market approach is used, the method in para (b) must be adopted.

The treatment in para (a) is mandated because, in the circumstances noted, the gross amount of current values of new assets and the accumulated depreciation are both considered to be relevant information, as most public sector infrastructure assets are specialised assets, with no feasible alternative uses. To continue to provide the services that the government mandates, such entities must replace the existing service potential embodied in the assets.

Further, the gross restatement method in para (a) above is mandated for assets valued using the cost approach irrespective of whether a revaluation has been conducted in that particular year.

9.3 Additional NSW disclosure requirements

This Policy requires the following additional NSW specific note disclosures:

- Where an agency holds assets that are not recognised in the financial statements because a reliable value cannot be obtained (for example, certain heritage assets) and those assets are likely to be material to the agency's financial statements:
 - \circ The reasons for the inability to obtain a reliable value for the assets;
 - The quantum, nature and functions of the assets, and their heritage significance (where applicable) and
 - An estimate of the annual costs of maintenance or preservation of the assets (where applicable).
- The agency's policy on revaluation, including the agency's policy on:

- When an interim revaluation should be performed or reviewed by an external professionally qualified valuer; and
- The circumstances in which an accountable authority may determine, after performing a management assessment, that a comprehensive revaluation should be performed instead of an interim revaluation.

Treasury may subsequently limit or vary application of this Policy.

Appendix A - Use of sampling in asset valuation

Sampling is used to enable conclusions to be drawn about an entire population, based on conclusions about a sample drawn from that population. It may be appropriate to value samples of an entity's assets and extrapolate the results of the valuation to the broader population, rather than value all assets individually.

Sampling, including benchmarking, may be used in both comprehensive and interim valuations where appropriate.

Sampling will be appropriate for large populations for which it is possible to select a sample that is representative of the population i.e. when the population is relatively homogeneous. To ensure the results of the sampling provide a sufficiently accurate measure of the value of the relevant asset base, the sampling approach used must be based on a robust methodology which is statistically sound, use relevant and verifiable assumptions and maximise the use of observable market data. Agencies should consult their external qualified valuers and/or a qualified statistician to determine when to use sampling and how best to apply it to their asset portfolio.

For example, sampling techniques may be particularly useful for heritage / cultural assets where there are incomplete catalogues and the total population is not able to be identified. Sampling may also be useful for cases where the population of assets is so large that it is not feasible to value each asset. In these circumstances sampling techniques can be used initially to establish the collection population and secondly to value the collection.

Sampling may be appropriate for valuing an agency's entire asset portfolio, or for valuing part of the portfolio. For example, it may be most efficient to identify "high value" items and value them separately, while applying a sampling methodology to value the remainder of the asset portfolio. In this case, the agency would need to establish rules or policies, such as threshold values, to determine which assets would be valued individually and which assets would be valued using a sampling methodology.

Once the population is established, the sampling exercise may involve a number of steps including determining the sample size, selecting the sample, drawing the sample, designing the sample, valuing the sample and calculating the total extrapolated asset value. These steps are further discussed below, together with a discussion of an example of a sampling technique – benchmarking.

Design the sample

To ensure a high level of statistical accuracy, the sample needs to be representative of the population from which it is drawn, i.e. each sample item chosen should have characteristics typical of the population. Sampling will have regard to location / storage, the homogeneity of the items within the class and the expected range of values within the population to be sampled.

If a population of assets is not mostly homogenous, it will be necessary to "stratify" the population i.e. sub-divide the population into a number of groups (called strata) so that assets within each strata are approximately similar. Each strata then becomes a separate population for sampling purposes. This is commonly known as "stratified sampling".

For example, for heritage / cultural assets, this would normally require the subdivision into a number of groups and sub-groups. A separate sample is then taken from each sub-group. Within each sub-group, items should be approximately similar in nature, value and the way they are stored. There should be as little variation in characteristics as possible within each sub-group.

Depending on the nature of the collection, there may be elements that range from the priceless to the valuable to the "difficult to measure" category. Examples could include the personal property of a colonial founder, an extensive philately collection and a scientific collection. The first cannot be valued by reliable measurement as it is unique; the second can be valued readily and the third can only be valued if there is a reliable measurement system that has been developed in the appropriate professional areas.

Determining the sample size, selecting the sample, drawing the sample, valuing the sample

The sample must be selected from the population such that all items in a population have a chance of selection, should ensure a reasonable coverage of the population and should not be a sample of a sample. This is important because it ensures the results of the sample valuations can be extrapolated to the population.

Materiality (of both statement of financial position and profit or loss impacts) must be considered when assessing the acceptability of possible error rates. Detailed information should be kept during the selection and valuation of samples to validate the sampling methodology.

Extrapolating the results to calculate the value of the asset portfolio

Where reliable measurement is possible, once the samples have been valued, the statistician will be able to extrapolate the values applied to the samples to the whole population and calculate the degree of accuracy that has been achieved.

If stratified sampling has been used, the valuation is extrapolated for each stratum separately.

Example of a sampling technique - Benchmarking

Benchmarking techniques could be used for entities that have a number of properties of the same type that could be grouped into specific categories and assessed by way of sampling, e.g. NSW Land and Housing Corporation's housing estates, Teacher Housing Authority NSW housing, Department of Education's schools etc.

The application of the benchmarking technique would depend on the degree of the comparability of the property within the entity's portfolio. The benchmark properties selected should have similar characteristics and should follow a consistent trend in value movement. The following key points would need to be taken into account in applying the benchmarking approach to property assets:

- It would be necessary for all properties within the portfolio to be categorised in the first instance.
- Benchmark properties would then be selected by the valuer and they should be representative of as much of the characteristics of the portfolio as possible.
- Subsequent revisions of valuations would involve an assessment of the benchmarks by a valuer and indexation of the various categories by a factor reflecting the movement in the market between the prior valuation date and the reporting date.
- Any property that is unsuitable for benchmarking would need to be valued individually.
- Care would need to be taken to make adjustment for additional improvements, redevelopment, demolition, change of use etc.
- This method of assessment would only be suitable for a limited period and a formal review of each sample should be undertaken periodically to ensure it remains representative.

The main advantage of benchmarking is that valuation costs can be reduced considerably due to the much smaller number of items that have to be valued.

The benchmarking approach can be extended to large non-urban holdings, such as national parks or catchment areas, where the extent of development of properties is generally known and the limitations imposed on use or development reduce or even eliminate feasible alternatives. In these situations, the process of valuation would be facilitated if inventories of improvements, property records, air photos etc., were readily available. The valuer can then undertake the required number of valuations or sample parts of the property portfolio to provide the basis for assessing the values of the whole of the entity's assets.

Further information and contacts

For further Information or clarification on issues raised in the discussion paper, please contact:

Accounting Policy, NSW Treasury Email: accpol@treasury.nsw.gov.au